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Climate Change and the Revival of Cold War Rivalries: A Neorealist Study of Arctic Geopolitics

Muhammad Ismail Qaddus
ismailmuhammad6875@gmail.com
Graduated from University of Gujrat, Pakistan

Roha Rizwan
roharizwan129@gmail.com
Graduated from University of Gujrat, Pakistan

Afeefa Anees Raja
20011587-042@uog.edu.pk
Graduated from University of Gujrat, Pakistan
Corresponding Author: * Muhammad Ismail Qaddus ismailmuhammad6875@gmail.com

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ABSTRACT

Climate change-induced warming is slowly transforming the Arctic frozen frontier into a strategic fault line of the 21st century. This paper argues that climate change acts as a structural catalyst for rivalry and struggle for relative gains, intensifying the security dilemma among global powers—Russia, the United States, and China—by unlocking sea routes and exposing resources at an unprecedented rate. The study analyzes Moscow's militarization, territorial tactics, and energy projects; Washington's alliances and some of its own deterrence and freedom-of-navigation postures; and Beijing's economic and scientific diplomacy in accord with Neo-realism as indicative of struggles for relative gains rather than cooperative governance. Modern forms of militarization, backed by bloc postures, harken to the Cold War period; however, the Arctic competition today stands out for its multipolarity, with China emerging as the third actor, and institutions playing a limited role. The study concludes that while the Arctic is unlikely to evolve into a full-scale Cold War 2.0, it will continue to be shaped by a managed security dilemma, marked by persistent tension, ongoing militarization, and the structural impacts of climate change.

Keywords: *Arctic Region, Neorealism, Climate Change, Cold War, Geo-politics*

INTRODUCTION

'Let the North Pole be a pole of peace,' Mikhail Gorbachev's Cold War-era appeal, which has since resonated as the idea of Arctic exceptionalism, envisioned the region as a sanctuary of cooperation and scientific exchange (Gorbachev, 1987). For many years, the idea of Arctic exceptionalism held sway: the Arctic was treated as a periphery; remote and insulated from the great-power rivalries that defined global politics. Yet in the twenty-first century, that perception is fading. Accelerated climate change has dramatically altered the geo-strategic landscape. The Arctic is warming nearly four times faster than the global average, resulting in melting sea ice at unprecedented rates, exposing shorter maritime routes and vast hydrocarbon and mineral reserves (IPCC, 2021; USGS, 2008). Such changes are now reshaping the geo-politics, drawing attention of Arctic littoral states and external powers alike. The Arctic is no longer a frozen frontier; it is becoming a central arena of geopolitical competition and strategic calculation.

At the forefront of this transformation are the United States, Russia, and China, which are redefining power balances. Moscow is reinforcing the Northern Fleet and commercializing Arctic energy fields to secure long-term revenues and regional control (Boulègue, 2022; Staalesen, 2018). Washington is reviving its Arctic posture through strengthening alliances and emphasising freedom of navigation, to hedge against Russian assertiveness and China's growing presence (U.S. Department of Defense, 2019). Meanwhile the Beijing, though not an Arctic littoral state, pursues a long game: scientific missions, port developments, and other economic investments. It promotes a "Polar Silk Road" to link the High North, the Northern Sea Passage, with its Belt and Road Initiative (BRI) and to position itself within future Arctic trade and energy networks (Brady, 2017; State Council of China, 2018). These moves are not random; they reveal how states respond when new material opportunities reshape the strategic landscape. The question that animates both scholars and policymakers is therefore unavoidable: is the Arctic entering a "new Cold War," or does today's rivalry represent a distinct geopolitical contest shaped by climate change?

Neo-realism lens is used to approach the article throughout. Structural realism or Neo-realism, as articulated by Waltz (1979), argues that in an anarchic international system, states act to secure survival by maximizing relative capabilities. The Arctic region politics exemplifies this logic: the retreat of ice is not only an environmental shift but a structural change that redistributes material opportunities. Emerging sea routes, untapped energy reserves, and strategic chokepoints function as incentives for states to expand presence and balance against rivals (Mearsheimer, 2001; Grieco, 1988). Russia's militarization, America's deterrence posture, and China's observer diplomacy are rational responses to these systemic pressures that are creating a complex security environment.

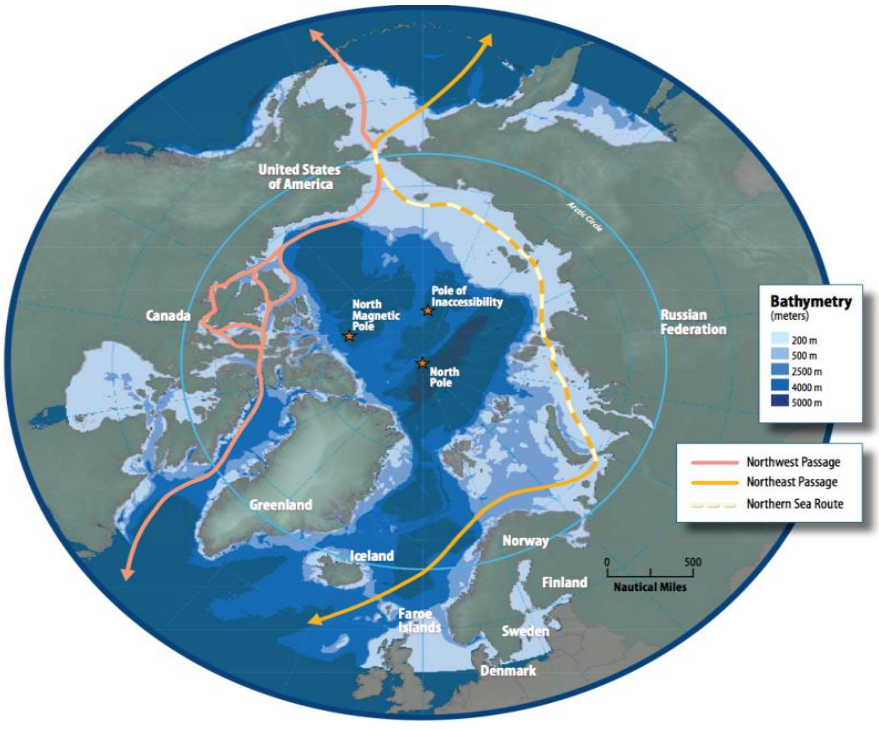

Figure 1: Map showing key Arctic shipping routes (Northern Sea Route & Northwest Passage). Source: Wikimedia Commons (Arctic Council, public domain)

While liberal institutionalists emphasize the cooperative role of the Arctic Council and UNCLOS (Young, 2016), the persistence of mistrust and arms build-ups underscores Neorealism's explanatory strength. Instead, as Jervis (1978) observed, even measures framed as defensive, such as icebreaker construction or NATO exercises or China's scientific and economic diplomacy, are frequently interpreted as threatening by others, thereby reproducing the security dilemma. In this way, the Arctic demonstrates the enduring explanatory power of Neorealism: structural change driven by climate dynamics reshapes material capabilities, compels balancing behaviour, and sustains competition and regional tensions despite limited institutional cooperation.

This paper contributes to three areas. It first reframes climate change as a structural catalyst within the Neorealist theory to show how melting ice and resource availability redefine capabilities and enhance competition. Second, it makes a comparative study of the U.S., Russian, and Chinese policies and how each weighs economic ambitions with military readiness in the Arctic. Lastly, it assesses the parallels and differences with the Cold War by arguing that, although the modern-day dynamics are reminiscent of the militarization and bloc politics of the past, they are not a binary confrontation and emerge as a multipolar rivalry moderated by interdependence and institutional impact, which might be considered as low.

The analysis shows that the Arctic can neither be a sanctuary of peace nor can be, yet, a battlefield of total war. Climate change has opened the strategic space anew and brought Cold War-like processes of militarization and mistrust back to life, but rivalry today unfolds in a multipolar and economically interdependent environment, whereby institutional structures and dependencies slightly moderate the process of escalation by providing a diplomatic platform. The High North is thus best described as a modernised zone of controlled competition, strained and militarized, but limited short of an open war, demonstrating how much Neorealism theory still applies to contemporary geopolitics. But climate change is radically transforming the intensity of competition and availability of new resources and opportunities. Moreover, the Ukraine-Russia war since 2022 has also changed or intensified the tensions in the relations between NATO's member states and Russia, which has also created a tense environment on the northern front.

METHODOLOGY

Aim and Research Problem

This study examines how the geostrategic landscape of the Arctic is being reshaped due to climate change and intensifying great-power rivalry. Once a peripheral zone of cooperation, moving closer to the center of the global political system as melting ice unlocks maritime routes, resource reserves, and strategic vulnerabilities. The main rising problem addressed is whether these changing dynamics signal a revival of Cold War–style confrontation or will represent a different multipolar contest conditioned by environmental change.

Research Questions

1. How has climate change reshaped the Arctic's geostrategic landscape and intensified strategic competition among great powers?
2. How are the United States, Russia, and China responding to emerging Arctic opportunities and risks in pursuit of security and economic interests?
3. To what extent does Arctic competition reflect characteristics of a classical security dilemma, as conceptualised within Neorealist theory?

4. In what ways do contemporary rivalries mirror or diverge from Cold War–era great-power competition?

Theoretical Framework

The Neorealist framework is applied to explain the dynamics of Arctic geopolitics in the context of climate change. According to Waltz (1979), neorealism maintains that anarchy shapes international politics, and in that there is no centralized authority that has authority over state behaviour. States face the necessity to prioritize their survival in such circumstances, base their decisions on the allocation of capabilities, and pursue relative gains (Grieco, 1988).

According to John Mearsheimer (1995), Neorealist analysis has its foundation on five assumptions: (a) the international system is anarchic by nature; (b) states nonetheless remain capable to attack against one another militarily; (c) it is never completely obvious what other states intend; (d) the primary motive for state behavior is survival; and (e) states constantly look for ways to ensure their survival. These presumptions have concrete manifestations in the Arctic; they are more than abstract. The region is vulnerable to the logic of anarchy, primarily because of the lack of or futile binding governing mechanisms on security-related matters. The second assumption has been reinforced through the ability of governments to project force via northern bases, submarines, military exercises, and icebreakers. The third assumption is exemplified by uncertainty about targets for the future, such as Russia's military development and exercises or China's economic influence and proclamation of a near-Arctic state. The United States, Russian, and Chinese policies are influenced by survival imperatives, which include maintaining energy security, territorial control, and freedom of navigation. Lastly, the fifth assumption, the ongoing security strategies in an uncertain environment, has been mirrored in each state's investments in alliances, fleets, and infrastructure.

Climate change is considered a structural trigger in this strategy. The melting of sea ice is not merely an ecological change, but an evolution of material possibilities, redistribution of resources, maritime routes, and strategic chokepoints. Such major economic opportunities and efforts towards acquisition are developing and igniting the fault-lines that ultimately endanger the security of the region. As Jervis (1978) explained, even defensive measures such as icebreaker development in Russia or military exercises in the Arctic by NATO are seen as threats, and the outcome is counter-measures and a deepening distrust, and a state of tension.

The Arctic developments are best understood in this paper as a product of systemic constraints rather than individual state preferences, guided by Mearsheimer's (1995) neo-realist assumptions. The framework highlights: why tension and rivalry persist, geopolitical competition remains embedded due to the structure, though cooperation is necessary and occurs occasionally, it still remains fragile.

Significance of the Study

The present paper is of paramount importance: it not only contributes to the study of international relations but also rebrands climate change as a structural factor that encourages geopolitical competition and conflict instead of an environmental backdrop. It discusses and hopes to clarify to the readers that climate change is imposing systematic pressures that process Arctic strategizing in a relative gain logic. A comparative study of the policy approaches of the United States, Russia, and China is further discussed through the nature of the Neorealism theoretical framework that is applied to a climate-altered security environment. The comparative analysis is relevant in establishing whether growing tensions in the High North would translate into the revival of Cold War-type warfare or more sophisticated but controlled

conflict worked out on the basis of emerging opportunities and maneuvers. The implication, which emerges as a result of the study so governance of security and future of High North as it relates to scholarly talks and argumentation of policy.

Research Methodology

The research adopts a qualitative approach to examine how climate change is reshaping the Arctic geopolitics and intensifying great-power rivalry. The data was drawn from secondary sources such as academic journals, institutional reports, news reports, policy papers, national Arctic strategies, and authentic information regarding our topic. These documents were analyzed through a Neorealist lens, focusing on concepts such as anarchy in the international system, balance of power, relative gains, and the security gains, while ensuring to provide authentic and valid information analysis about whether modern development is a revival of Cold War-style confrontation or will represent a different multipolar contest. The research was completed within a period of three months from June to August.

CLIMATE CHANGE AS A STRUCTURAL CATALYST

Climate change is typically discussed as a humanitarian or ecological problem, but when it comes to the Arctic, it is viewed as a geopolitical construct that leads to competition. By the lights of the Neorealist explanation, the melting ice and shifting geographies alter the material distribution of capabilities, and the states adjust their calculations. In that relation, environmental change is not solely a systemic dimension that increases competition, leading to the emergence of security dilemmas and relative-gain calculations in the United States, Russia, and China, but also an environmental background.

Melting Ice and Material Capabilities

The pace of Arctic warming is three to four times greater than that of the rest of the world, and satellite data show a shrinking summer sea ice by about 13 percent every decade since 1979 (AMAP, 2021; NSIDC, 2022). It is even estimated that the ice-free summer will occur nearly as soon as the 2030s (IPCC, 2021). This kind of transformation restructures power in two senses. Firstly, new shipping routes such as the Northern Sea Route (NSR) and Northwest Passage (NWP) reduced transit time in Europe and Asia by up to 40 percent, with direct impacts on international trade. Second, more hydrocarbons and minerals are exposed as ice melts back; two U.S. Geological Survey studies project that as much as 22% of all oil and gas in the world is undiscovered above the Arctic Circle (USGS, 2008).

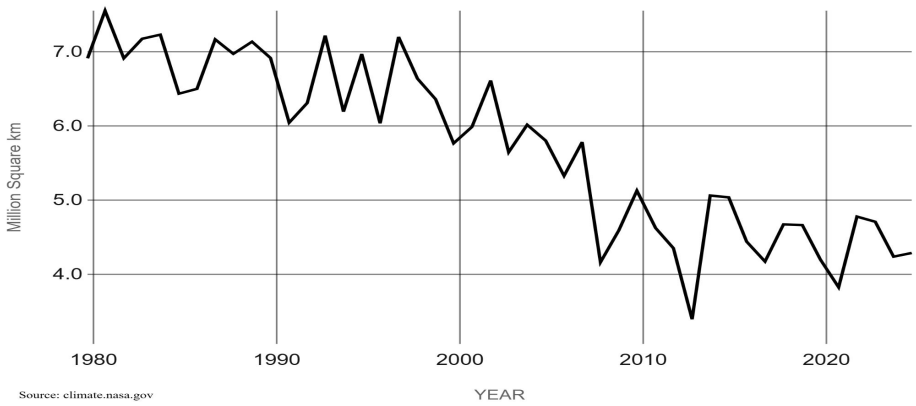

Figure 2: Decline in September Arctic sea ice minimum, 1979–2023 (NSIDC Sea Ice Index).

In Neorealism terms, such changes redistribute capabilities. The NSR enhances the leverage of Russia in passing trade through Eurasia, a factor that, consequently, strains U.S.-China energy security calculations in consideration of Arctic hydrocarbons. Climate change increases the distributions of opportunities and vulnerabilities that result in counter-relatively declining states in the terms of Waltz (1979).

Relative Gains and Resource Competition

To liberal theorists, the benefit of access to common Arctic resources would accrue to all states rather than the relative gain logic as discussed by Neorealists (Grieco, 1988). States worry less about their own absolute prosperity than whether their rivals will translate relative advantage into strategic leverage. Expansion of Yamal LNG and promotion of the NSR by Russia have raised concerns in Washington and Brussels about Moscow's monopoly of Arctic rents and shipping routes (Røseth, 2019). Similarly, investments by China in Arctic ports and energy projects under the "Polar Silk Road" raise alarm bells in both Moscow and Washington about Beijing's growing influence.

In this regard, the U.S. strategy is less aimed at resource extraction and more aimed at thwarting Russo-Chinese domination. Concurrently, China sees the Arctic as a means to diversify supply routes and lessen dependence on choke points controlled by the U.S. As Powell (1991) explains, even in settings that appear cooperative, states are primarily concerned with averting relative loss.

The Security Dilemma in the High North

The accession of climate change is magnifying the security dilemma. Arctic waters, which are mostly locked in ice, retreat over time, making them accessible for submarines, patrol vessels, and icebreakers. Therefore, military deployments become both feasible and necessary. Every state defines its own activities from the perspective of defense: the Russian Northern Fleet is said to ensure the protection of energy infrastructures; Alaskan deployments for the United States are characterized as indeed safeguarding navigation; icebreakers dubbed by China will always be seen as scientific assets. However, in keeping with the logic of Jervis (1978), such moves are seen by rival nations to be offensive ones. But the strongest example would be that while NATO views the Russian bases with an evil eye, attributing them to a threat to European security, Moscow interprets it as being surrounded by the United States and NATO activities going on in Norway.

It is more of a spiral of increasing involvement, like the political posturing of the Cold War, only with a much lower ideological content and much more environmental transformation-the price of militarization, the increase in the probability of misunderstanding, and the escalation of systemic driving forces that perpetuate competition.

Climate Change as a Structural Variable

Climate change has a structural position in Neorealism, as do geographical or technological considerations. It operates at the system level and reallocates opportunities among states regardless of the domestic politics and leadership of states. This rationalizes Neorealism because changes in the environment are not viewed as an exogenous shock but rather as an endogenous variable that actively alters international politics.

Thus, the structural trigger of Arctic rivalry is climate change. With routes to the sea open, resources are revealed, and capabilities are shared, and relative gains competition ensues. This systemic shift plunges

states into security dilemmas, rendering the Arctic a prime example of Neorealist dynamics manifesting themselves in an era of environmental change.

ECONOMIC AND STRATEGIC ACTIONS OF GREAT POWERS

Russia, the USA, and China are the three most significant actors in the Arctic, and have bolstered economic opportunities with strategic ambitions for deepening their presence in the High North. The policies shift and new actions triggered by climate change, when analyzed through a Neorealist lens, mirror how concerns over relative gains and the security dilemma prolong antagonistic behaviours despite occasional gestures of cooperation.

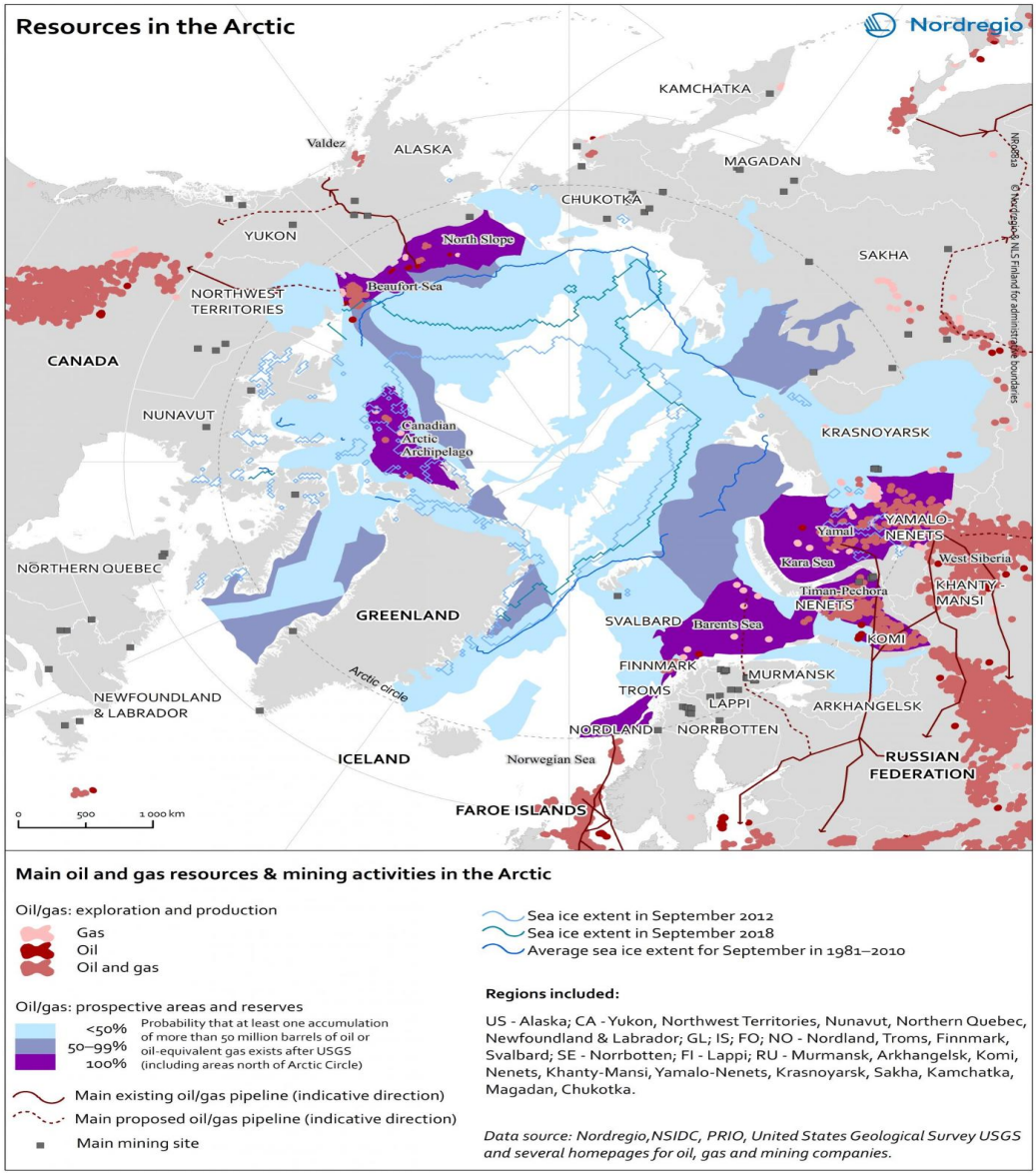

Figure 3: Distribution of undiscovered oil and gas resources in the Arctic (USGS, 2008, public domain)

Russia: Energy Dependency and Militarization

Russia remains a major Arctic power exercising control over nearly half of the Arctic coastline and deriving about 20% of its GDP from energy projects in the north (Laruelle, 2021). The Kremlin's Basic Principles of State Policy in the Arctic to the Year 2035 describes the region as a "strategic resource base" vital for the very survival of the state. Big flagship projects, such as Yamal LNG, attract foreign capital but remain strictly under Russian control, thus showing Moscow's resoluteness to monetize Arctic hydrocarbons while securing its sovereignty.

The Northern Sea Route (NSR) is central to this dual strategy. It cuts 10-15 days of transit between Europe and Asia while serving as a commercial lifeline and a leverage instrument. Moscow requires foreign vessels to apply for permits and, in most cases, insists on Russian icebreaker escort services; hence, the NSR is an instrument of influence (Røseth 2019).

Militarily, Russia has undertaken the largest Arctic buildup since the Cold War. Its Northern Fleet, which is responsible for two-thirds of Russia's nuclear arsenal, has been modernized with new submarines, aircraft, and hypersonic-capable missile systems (Mathieu, 2022). Dozens of bases built during the Soviet era have been reopened alongside new radar, air, and naval facilities. This action is officially defensive, but according to Jervis's (1978) reasoning, NATO interprets it as offensive military action, resulting in the launching of counter-deployments.

Russia's Arctic strategy is an illustration of relative-gains competition and balancing behavior. By constructing energy infrastructure and military might, Russia tries to prevent itself from being left behind against the changing dynamic powers in the region, particularly the United States and China.

United States: Strategic Deterrence and Alliance Commitments

The Arctic was long treated as peripheral by Washington, which relied on Alaska and NATO allies for the northern flank's security. Russian military buildup and China's 'near-Arctic' ambitions have forced a change in strategy. The National Strategy for the Arctic Region (White House 2022) and the Arctic Strategy issued by the Department of Defense in 2019 openly identify the Arctic as a theater of great-power competition.

The U.S. response is deterrence and alliances. Fort Greely and Joint Base Elmendorf-Richardson in Alaska are being upgraded with missile-defense systems and host large-scale exercises. NATO exercises such as Trident Juncture in Norway signal U.S. commitment to Arctic allies while counterbalancing Russian deployments (Wezeman 2016). However, with only two aging heavy icebreakers, the U.S. faces a capability gap in contrast to the Russian icebreaking strength of over 40 vessels.

Economically, Washington is less reliant on Arctic hydrocarbons but prioritizes freedom of navigation. It has rejected Moscow's normatively defined authority of the NSR and viewed increasing Chinese investment in Arctic-related infrastructure with a wary eye. These attitudes are very much in line with the observation that Powell (1991) made that the opposition of states in arrangements where advantages are concentrated on rival states is augmented even in circumstances where this opposition seems to have a lot of earning power in cooperating.

From a Neorealist viewpoint, U.S. policy demonstrates how balancing imperatives supersede any cooperative urgencies like common interests in environmental protection or search-and-rescue: these concerns are sacrificed to deterrence and strategic autonomy.

China: Observer Diplomacy and the Polar Silk Road

China, while geographically distant, has steadily expanded its Arctic footprint. Its *Arctic Policy White Paper* (State Council, 2018) introduced the "Polar Silk Road," positioning the Arctic within the Belt and Road Initiative. China has no territorial claims, yet it sees itself as a "near-Arctic state" with concomitant rights to engage in scientific research, shipping, and resource exploitation (Brady, 2017).

Beijing has also invested in dual-use infrastructure and energy projects, such as 20% ownership of Russia's Yamal LNG and possibly proposed port projects along the Northern Seapath Route (Staalesen, 2018). These developments not only diversify energy supply lines away from chokepoints like the Strait of Malacca but also reflect the Neorealist logic of relative gains: China acts not solely to profit but to ensure that relative gains are achieved with exclusionary behavior.

Diplomatically, Beijing uses its observer status at the Arctic Council to combine soft power with material engagement. Its two icebreakers (Xue Long I and Xue Long II) are officially scientific vessels but are also a source of operational experience and dual-use capability. According to Jervis (1978), this fine line of science and strategy is one of the factors that is causing major powers in the Arctic a security dilemma.

China is hedging without even needing to jeopardize its role in Arctic politics and economy, and declare an open conflict with either Russia or the United States.

Comparative Analysis

Russian, US, and Chinese policies show how structural pressures in anarchy transform opportunity in the Arctic into competition. Russia utilizes geography to gain resources and military superiority; the U.S. employs alliances and deterrence to counter adversaries; and China employs diplomacy alongside investment to avoid exclusion. These are not similar thoughts but all the recommendations are repeats of the same message to seize the opportunities made in the climate as a strategic advantage before your competitors.

This neorealism relation is based on the logic of relative gains. The fact that the Chinese have been nearly encroaching on its energy ventures worries Russia. The Russian monopoly on the North Sea Route and access to its ports worries both Washington and Beijing, which are doing everything in their power to avoid being pushed aside by the Arctic giants. Any self-defensive measures of power that include bases, patrols, icebreakers will be viewed as threats by others and will, in fact, increase and propagate the security dilemma.

This is where a minimalistic dialogue by the intergovernmental level of the Arctic Council or other systems can allow holding down militarization or zero-sum calculations. They produce instead an orderly rivalry: tensed, competitive, militarized, but not war. Climate change is the structural driver of this trend, reassigning luck and exposure amidst what will be left to manifest the continued practicability of Neorealism in the High North.

COLD WAR PARALLELS AND DEPARTURES

Whether the Arctic is in a new Cold War or not is a highly debated topic with regular frequency in the scholarly and policy worlds. On the one hand, militarisation, block logic and zero-sum competition echo the U.S.-Soviet confrontation just enough to be heard (Conley & Rohloff 2015; Wezeman 2016), and on the other, structural differences, multipolarity, interdependence and institutional actions will blur the

analogy. As regards the security dilemmas and military posturing, it will be contended that today the Arctic rivalry is multipolar, commercially involved, and is to some extent institutionalized, and that it does bear security parallels.

Parallels: Militarization, Security Dilemmas, and Bloc Logics

Militarization is the most obvious similarity. Since 2014, Russia has modernized more than 50 of its military installations in the Arctic, has stationed its modern S-400 air-defense systems in the region, and has developed its Northern Fleet with over 35 new vessels (Boulègue, 2022). The answer from NATO included large-scale exercises like Trident Juncture 2018 with 50,000 personnel from 31 countries in a single location and rotation assignments in Norway, Iceland, and Greenland. The U.S. has revitalized its Second Fleet to cover the North Atlantic and Arctic while commissioning Arctic Offshore Patrol Ships in Canada.

Figure 4: Approximate locations of NATO and Russian Arctic military bases,

Source: Statista

According to Jervis (1978), the security dilemma remains central to this. Moscow tends to interpret its activities in the Arctic as being defensive, aimed at the protection of energy lifelines and sovereignty, while NATO would see it as an escalation in offensive activity, since 2014's Crimean invasion by Moscow and the ongoing war of Russia-Ukraine also make the matter more serious and tense. It is the

same portrayal of NATO exercises as a deterrence effort, which Moscow calls encirclement. This action-reaction spiral is remarkably cold-war style and thereby heated further by the changes from global warming, which has increased access time in the Northern Sea Route by 80% from 1979 (NSIDC, 2021).

Departures: Multipolarity and the Role of China

The Arctic is no longer bipolar, as it was during the Cold War. In 2018 Beijing announced that it was a near-Arctic state in its Arctic Policy White Paper. Beijing has already invested more than 12 billion in energy and infrastructure in the Arctic, with stakes in Russian Yamal LNG and port infrastructure on the Northern Sea Route (Staalesen, 2018).

The multipolar system promotes elasticity in alliances. Economic relations exist between Russia and China, but Russia is rather wary, as she knows about possible long-term Chinese plans. The United States is strengthening NATO but takes care not to let its Arctic commitments interfere with its international responsibilities. Unlike the foreseeability that is a feature of austerity polarities, present alliances are dynamic, tactical, and hedge against hedging.

Economic Interdependence

There is another exit in the perpetual condition of economic interdependence. Arctic economies are now linked to each other, not as was the case during the Cold War, i.e. in autarky. In this respect, the Yamal and the Arctic LNG-2 projects provide Russia with its 20% export market share, and a number of European and Chinese companies collaborate with these projects. Instead, China is creating the Polar Silk Road and selling it as a win-win to the Strait of Malacca and its choking points (State Council, 2018).

Neorealism reminds us that cooperation never eliminates rivalry since states are always fearful of relative deprivation (Grieco, 1988). In other words, due to interdependence, the price escalation costs are enhanced. It is evident, for example, that European companies establish joint ventures with Russian firms on Russian LNG despite the imposed sanctions. This shows that economic ties can indeed weaken rivalry even if tensions exist.

Institutions and Governance

Governance frameworks also distinguish today's Arctic from the Cold War. Established in 1996, the Arctic Council provides a platform for dialogue on science and environment, while continental shelf claims find resolution in UNCLOS. Neither UNCLAS nor the Arctic Council provides a counter to militarization, but both lend their weight to shaping legal and diplomatic norms.

From an Neorealism point of view, institutions are not able to remove the prospect of unending war (Mearsheimer, 2001). Yet they impose costs on reputation and provide a channel for means of communication. The partial suspension of Arctic Council cooperation after the Russian invasion of Ukraine in 2022 illustrates its importance and weakness.

Cold War 2.0?

Overall, the Arctic has hybrid dynamics; militarization, bloc politics, and security dilemmas resonate with the Cold War. Yet multipolarity, interdependence, and institutions muddle the analogy. It is better to view the region as a managed rivalry: tense and militarized, but with some governance mechanisms to reduce conflict over shared stakes.

The Arctic represents a "Cold War 2.0," still structurally driven but not ideologically defined. It is climate change, not ideology that catalyzes rivalry; it lowers the barriers for militarization and heightens competition over trade and resources. The end product is a security environment that is prone to conflict but more complex and less totalizing than the U.S.-Soviet confrontation.

PROSPECTS FOR FUTURE CONFLICT

Climate change has sharpened strategic competition in the Arctic, but whether this rivalry escalates into open conflict remains uncertain. Alarmist "new Cold War" narratives oversimplify a complex reality. The Arctic is less a battlefield-in-waiting than a zone of managed rivalry—intensely militarised but tempered by economic ties, multipolar checks, and fragile institutions.

Intensifying Rivalry through Climate Change

According to the Arctic Monitoring Assessment Program, Arctic climates are warming up at almost four times the world average (AMAP, 2021). Summer sea ice is in decline at 13% per decade since 1979 (NSIDC, 2022), with projections indicating ice-free summers from 2030 to 2050 (IPCC, 2021). The melting of the Arctic leads to -increased- shorter shipping routes and exploitation of vast hydrocarbon reserves, considered to be around 22% of the world's undiscovered oil and gas (USGS, 2008).

These structural alterations are driving state action. Russia seeks domination over the Northern Sea Route (NSR), which shortens transit between Europe and Asia by 40%. The United States has bolstered NATO's posture to the north, modernising various missile defence systems in Alaska. China, although without an Arctic coastline, invests significantly in LNG and Arctic infrastructure to secure a long-term foothold. A Neorealist way of thinking would insist that this is not an option but an action structuralized by international implications, as state capabilities change, each attempts to hinder its relative decline.

Risks of Escalation

The more militarised a region becomes, the more opportunities there are for accidents and miscalculations. An example would be the U.S. and Soviet submarines colliding under the ice several times during the Cold War. Today, with expanded submarine patrols, overlapping air exercises, and freedom-of-navigation operations, unintentional encounters may be growing on the horizon, as illustrated by NATO's Trident Juncture (2018), which engulfed 50,000 troops, 250 aircraft, and 65 ships: the largest exercise near Russia's Arctic frontier since the 1980s.

With nuclear weapons comes even greater volatility that gains its strength from their presence: two-thirds of Russia's strategic nuclear forces are stationed within the Northern Fleet, and the U.S. missile defense systems in Alaska are arrayed against long-range threats. Every minor incident could grow out of all proportions. But an escalation is not a foregone conclusion. Nuclear parity and the prohibitive costs of great-power war restrain. There is, thus, an incentive for caution rather than confrontation.

Constraints on Conflict

The dynamics that limit the possibility of open war are three.

- **Economic interdependence:** With regard to the energy projects in the Arctic, Russia exports LNG to Europe and China, and China relies upon the insurance of shipping routes as one of the diversifying measures. The U.S. not so much interested in the economy of the Arctic has even

gone further to declare that it relies on the security of the Arctic as a global trade problem. A large degree of interdependence increases the cost of escalation.

- **Multipolarity:** China is a partner in various LNG projects with Russia, but naive at the strategic front to think that Moscow is monopolizing. The West is utilizing NATO to enhance its military power, but not to commit itself to excess. This establishes a triangle of hedging and realignments, instead of a couple of fixed blocs.
- **Institutions:** The Arctic Council and UNCLOS are simply weak; it is not preventing them from developing communications and legal systems. These too were tried early in 2022, when the Russian invasion of Ukraine was underway and Council cooperation was not disbanded, but only a temporary suspension, a crisis management utility sign of weakness.

A Managed Rivalry

These dynamics combined indicate that militarisation and mistrust will prevail in the Arctic, yet no open hostilities will break out. Rivalry is an inherent predisposition of the anarchic system; however, interference by a network of economic relationships, regard for multipolar checks, and governance mechanisms inhibit its escalation. As Waltz (1979) stated, confrontation is infrequently sought by great powers unless a balance-of-power scenario leaves them no choice.

The Arctic is unlikely to reproduce the Cold War's binary confrontation. Instead, it represents a multipolar security dilemma: Russia is consolidating military and energy assets; the U.S. is balancing through deterrence and NATO; and China is gradually asserting its presence. Climate change has thus acted as a structural catalyst, increasing militarisation and mistrust, whereas interdependence and institutions create a tenuous balance.

CONCLUSION

The Arctic presents a paradox: rapid warming has raised strategic stakes, yet the region remains below the threshold of armed conflict. New maritime routes and resource access generate competition, but deep economic interdependence and existing governance arrangements constrain escalation. Neorealist interpretation posits that climate change is a structural force that alters material capabilities and incentives, providing some basis for understanding why cooperation is so fragile, even where rivalry might lessen. Simply put, climate change does not erase geopolitics; it reconfigures it.

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