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# The ambivalence of the implementation of the US arctic policy: integrating and disintegration factors of the allies

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The Arctic region is gaining increasing strategic importance due to its economic potential, resource richness, and shifting geopolitical landscape. The United States has recognized this significance and has established alliances and partnerships with various countries in the region to enhance its positions and interests. However, concerns exist regarding the limited understanding of the complex dynamics and evolving relationships among the US Arctic allies. The lack of comprehensive analysis and up-to-date information hinders the understanding of their strategic documents, military exercises, and interactions with global players like China and Russia. To address these concerns, our objective was to identify, analyze, and assess the factors that strengthen or weaken the interaction between US allies and partners in the Arctic region. We conducted an analysis of national Arctic strategies, reports, publications, and expert opinions from Western Arctic Council countries such as the USA, Canada, Denmark, Iceland, Norway, Sweden, and Finland. We also examined the reports and structures of the US defense services, interstate organizations like the North Atlantic Treaty Organization (NATO) and the North American Aerospace Defense Command (NORAD), as well as insights from leading experts on Arctic affairs in allied countries. The study revealed several factors that contribute to the strengthening of the US allies in the Arctic. These include active military cooperation within the North Atlantic Alliance, joint exercises, intelligence sharing, and the development of Arctic infrastructure to enhance regional security and defense capabilities. However, we also identified factors that weaken engagement among the US allies. These include differences in strategic goals, competing territorial claims, domestic political considerations, and varying relationships with other Arctic stakeholders like Russia and China. These factors can lead to tensions and challenges, which undermine collective action and impede the achievement of common goals.

## KEYWORDS

Arctic Ocean, geopolitics, NATO, NORAD, USA

## 1 Introduction

The Arctic region, characterized by its abundant resources, shifting geopolitical dynamics, and growing significance, has become a crucial area of focus for the United States, its allies, and partners. According to the US Geological Survey, the Arctic holds ~22% of the world's undiscovered resources, including vast reserves of oil, natural gas, and gas condensate (Bird et al., 2008). Recognizing the importance of the Arctic, the

United States is committed to fostering a peaceful, stable, prosperous, and cooperative region, as stated in its Arctic Strategy (The White House, 2022).

Due to climate change, stemming from heightened emissions of detrimental substances like CO<sub>2</sub> and chlorofluorocarbons (CFCs) into the atmosphere, consequential outcomes include the melting of Arctic ice and a reduction in ice coverage. This thawing has given rise to novel prospects in business and navigation, such as resource extraction, shipping, fishing, and tourism, thereby escalating competition for the region (United Nations Environment Programme, 2022). In response to the increasing military, trade, economic, and scientific activities of Russia and China in the region, the United States seeks to forge and sustain robust alliances and partnerships. This is done with the objective of safeguarding its interests and ensuring regional security. The US Arctic Strategy (The White House, 2022) prioritizes collaboration with allies and partners, recognizing that their involvement can partially compensate for the lack of surface ice facilities and infrastructure, which limits the operations of the US Navy beyond the marginal ice zone (Zysk, 2021).

Understanding the factors that positively contribute to the overall engagement between the United States and its allies and partners in the Arctic is crucial for developing effective policies and fostering cooperation in this dynamic and complex environment.

However, it is equally important to consider the factors that can undermine common interests and unity among the United States and its Arctic allies and partners. These factors may include competing territorial claims, divergent national policies and economic priorities, the increasing trade and economic collaboration between the Arctic allies of the United States and China. China strategically employs investment and trade as instruments for exerting foreign policy influence in the nations where it is involved (Klinck, 2012).

## 2 Literature review

The increasing attention toward the Arctic region has instigated numerous studies, covering a wide range of topics such as militarization, climate change, energy security, and scientific research. For instance, Conley and Wall (2021) explore security issues and alliance relations in the context of hybrid threats, identifying potential targets as Danish Greenland, Norwegian Svalbard, and Iceland. Greenwood (2023) addresses the issue of Chinese research stations and their economic investments in the European Arctic countries, highlighting the potential military implications. He also notes the modernization of the United States military bases in the Arctic territories, ongoing joint military exercises, cooperation with Canada through the North American Aerospace Defense Command, and the exchange of experience in combat operations in the challenging Arctic environment. Mikkola (2019) and Miller (2022) point out the United States investments in expanding intelligence, command and control capabilities, enhancing extreme weather capabilities, conducting more training and exercises in the north, and developing additional infrastructure including strategic ports and restoring operations in Iceland. In this article these positive aspects of joint allied exercises

and cooperation categorized as reinforcing and integrating factors. Conversely, elements related to Chinese financial and economic influence and research activities were identified as weakening and disintegrating factors. For example, Chess (2019) and Parsons (2022) highlight China's Arctic policy, which differs from Russia's approach and involves strategies of influence and investments in infrastructure and research projects. They suggest that these endeavors may serve to increase China's military presence. However, it is important to note that there is no consensus among experts regarding the extent of the threats posed by China, and different authors have employed different approaches. Lackenbauer (2021, 2022) argues that Chinese influence and threats in the region are overstated, emphasizing that the Indo-Pacific, not the Arctic, is the main theater of the China—United States rivalry. He suggests that modernizing and developing the North American Aerospace Defense Command is crucial for countering existing and future threats in the region (North American Aerospace Defense Command, 2021). On the other hand, Huebert (2019) expresses concerns about China's growing activity in the Arctic, referring to China as a self-proclaimed "subarctic nation." He notes China's deployment of surface naval forces in northern waters since 2015 and warns of potential complications if Chinese submarines appear under the Arctic ice. Danish scientists Olesen and Sorensen (2019) highlight China's efforts in building a robust Arctic research capability, including research stations like the Yellow River station in Svalbard, the Aurora Observatory in Iceland, and satellite receiving stations. China has also intensified its efforts to establish a "Polar Silk Road" in relation to Iceland and Finland.

It is essential to acknowledge that previous studies have not focused on identifying the elements that contribute to the strengthening and weakening of the relationship between the US and its allies in the Arctic. The purpose of this study was to identify the factors and construct a comprehensive factor model that reflects the strengths and weaknesses of the allied relationship, as well as their impact on the position and interests of the United States in the Arctic. The factors examined encompass strategic documents defining alliance goals, collective military exercises, the availability of military infrastructure, allied foreign policy and economic priorities, and geostrategic considerations. The examination of these components intends to offer valuable insights into the intricate dynamics of U.S.-allied relations in the Arctic.

This approach seamlessly integrates with the rationalist tradition and addresses a highly specific methodological challenge—namely, the imperative to conceptualize and formalize the research process while providing verifiable evidence of its outcomes. The theoretical underpinnings of the elucidated typology can be traced to the political realism paradigm, with realists and neorealists emphasizing that anarchy begets mutual distrust among states. Within the scope of our research, a system is construed as a distinct group of elements (such as states) interlinked through a network of interactions (military-political organizations, unions, alliances). Consequently, alterations in one or more elements or their interrelations induce modifications in other elements and the group as a whole. Underpinning such integrity from the vantage point of a systems approach, participants in global politics are ensconced in a continuum of regular interactions, shaping diverse configurations of centers

of influence or structures. Simultaneously, they are subject to the influences of the environment, encompassing both internal (context) and external (environmental) constraints and pressures (Tsygankov, 2013).

## 2.1 Stages

The first stage involved an extensive review of relevant literature and scientific papers to gather existing knowledge and ideas on the topic. This step aided in defining key concepts, approaches, and previous findings related to the implementation of US Arctic policy and alliance dynamics in the region.

The second stage focused on data collection, encompassing primary and secondary sources. Primary sources included official documents, as well as strategic documents and policy statements from US Arctic allies such as Sweden, Finland, Norway, Denmark, Canada, and Iceland. The Arctic strategies were obtained from official government websites. For example, the US National Strategy for the Arctic region was published on the official website of the US White House, the strategy of Denmark—on the website of the Ministry of Foreign Affairs, Finland—on the website of the Cabinet of the Prime Minister, and the Arctic strategies of Canada, Iceland, Norway and Sweden—on official websites governments. It is worth noting that the use of these sources presents certain challenges. Firstly, the Arctic strategies were developed and published at different times, resulting in potential disparities between the described country priorities at the time of publication and their current priorities. For instance, Denmark's Arctic strategy was published until 2020, and its principles and directions may no longer align with the country's current foreign policy, particularly considering the Russian-Ukrainian conflict. As another example, during his presidential tenure, President Trump consistently refuted the existence and influence of climate change, neglecting its repercussions on the Arctic. Conversely, since taking office, President Biden reintroduced discussions on climate change. Secondly, it is important to acknowledge that Arctic countries may have reasons to downplay or avoid certain topics, particularly security issues, to prevent political tensions with Russia, the US, or China, or due to domestic political considerations.

The further collection involved gathering reports, publications, and materials from the US defense services, Arctic allies, and interstate structures such as NATO and NORAD, as well as leading experts on Arctic issues. One noteworthy inclusion was the "Focus 2023" report from the Norwegian intelligence service, which provided a relevant analysis and assessment of military threats and risks associated with Norway's shared borders with Russia and its proximity to Russian nuclear forces on the Kola Peninsula, making it pertinent to this study (Norwegian Intelligence Service, 2023).

During the third stage, the collected data underwent systematic analysis to identify and categorize the factors influencing both the integration and disintegration of US allies in the Arctic region. This analysis encompassed comparing and contrasting the strategies, actions, and interests of the allies, as well as examining the impact of geopolitical, economic, and strategic considerations. Through comparative analysis, we also aimed to identify divergent views and approaches among prominent Western experts on Arctic

matters. At the outset of data collection and analysis, it became evident that there are no standardized formats for Arctic strategies, and Western partners hold differing interpretations, perspectives, and attitudes toward security, political and economic priorities, and collective interests in the Arctic. Based on the analysis, factors that contribute to integration were identified, including active military cooperation, joint exercises, intelligence sharing, and infrastructure development. Conversely, factors leading to disintegration encompassed differences in strategic goals, territorial claims, domestic politics, and misalignment of priorities with other stakeholders in the Arctic.

In the following stage, the integrating and disintegrating factors were assessed and synthesized to offer a holistic comprehension of the dual nature connected to the implementation of the US Arctic policy. This step entailed identifying patterns, relationships, and potential causal connections between factors and their impact on the overall relationship dynamics. A geopolitical approach was employed to grasp the broader political dynamics and power dynamics in the Arctic region. The possession of natural resources by Arctic countries forms the foundation of their foreign policy potential. The geographical positioning of these countries heavily influences their Arctic strategies, national security approaches, alliance choices, participation in defensive international organizations, and the main directions of rivalry and competition with neighboring countries and major global powers. For instance, the geopolitical analysis enabled an understanding of the cause-and-effect relationships of military risks for Finland and Norway, given their shared borders with Russia.

Drawing from the outcomes of the preceding two stages, factor models were developed to represent the integrating and disintegrating components.

It is important to acknowledge certain limitations in this study. The analysis primarily relies on publicly available documents, which may not encompass all relevant aspects of the interactions among US Arctic allies. Nonetheless, efforts have been made to ensure the accuracy and reliability of information by drawing from authoritative sources and applying various analytical methods.

Hence, international systems are models developed within the discipline of international relations and global politics, designed to discern determinants and patterns elucidating the conduct of actors, specifically political entities, and their associations. And through the application of a systematic approach, this analysis facilitated a structured and comprehensive examination of the integrating and disintegrating factors within the context of US Arctic policy and the relationships between its allies. This approach contributed to a thorough and impartial analysis of the subject matter, enhancing the understanding of the dual nature associated with the implementation of US Arctic policy and its implications for international relations in the region.

## 3 Results

### 3.1 Strengthening and integrating factors of the allies

The allies and military-political partners of the United States, particularly within NATO, play a crucial role in bolstering the

influence of the US in the region. It is noteworthy that there is an increasing interest in the Arctic within NATO. This surge is attributed to the heightened Arctic policies pursued by Russia and China, coupled with NATO's Enlargement into Arctic nations. The increasing popularity of discussions surrounding the establishment of a NATO Arctic Command within expert and military-political circles also signifies the growing prominence of the Arctic on NATO's agenda. It is imperative to underscore that despite NATO encompassing numerous member states, the interests and influence of the United States hold considerable significance within this alliance. Consequently, discussions about NATO's enlargement and the development of new military capabilities directly align with U.S. interests. As depicted in [Figure 1](#), six out of the eight Arctic states are part of the Alliance, while Sweden is currently in the process of joining NATO. The remaining country is Russia.

### 3.2 The strategies that bind

The United States maintains strong bilateral and multilateral relationships with these countries, including Sweden and Finland, who are members of the Arctic Council. These alliances and partnerships are not just symbolic but rather have substantial impact and influence. Upon analyzing the official documents, such as the national strategies for the Arctic among US allies and partners, a significant level of alignment in their priorities and objectives was observed. Their collective commitment to Arctic region security serves as a unifying force. Notably, countries like Norway, Canada, and Iceland highlight the importance of NATO and the United States in their Arctic strategies. For instance, The Norwegian Government's Arctic Policy ([Norwegian Ministry of Foreign Affairs, 2020](#)) emphasizes that NATO is crucial for the country's security, with the alliance's responsibility extending to the North Pole. Similarly, Iceland's Policy on Matters Concerning the Arctic Region ([The Ministry for Foreign Affairs of Iceland, 2021](#)) emphasizes close cooperation with Scandinavian countries and NATO allies to monitor security developments, counteract militarization, and maintain peace and stability in the region. Canada's Arctic and Northern Policy Framework ([Government of Canada, 2019](#)) recognizes the Arctic's significance in terms of air and sea approaches to North America and commits to working closely with the US to ensure the safety of both countries from threats originating from the north. The Kingdom of Denmark Strategy for the Arctic ([Denmark, Greenland and the Faroe Islands, 2011](#)) identifies Canada, the US, Norway, and Iceland as key partners for collaboration in various areas such as resource development, maritime security, climate and environment, indigenous peoples, research, education, healthcare, and defense. Additionally, close cooperation with Finland and Sweden on Arctic matters is also supported.

However, the Arctic strategies of Finland, Sweden, and Iceland express growing concerns about the increased activities of China and Russia in the Arctic region. Finland's Strategy for Arctic Policy ([Publications of the Finnish Government, 2021](#)) highlights China's escalating economic and strategic interest in the region, particularly in natural resources, infrastructure, and transport routes. Finland acknowledges the potential risks and threats to regional security

and the sovereignty of Arctic countries due to China's involvement. Russia is also noted to be strengthening its military presence in the Arctic to safeguard its economic interests and maintain control over the Northern Sea Route. Sweden's strategy for the Arctic region ([Government Offices of Sweden, 2020](#)) emphasizes the growing interest of non-Arctic states in the region, with China specifically mentioned as a source of potential conflict of interest. While China expresses general support for international law, its selective actions regarding its core interests raise concerns. Although China's military activities in the area remain limited, it is gradually expanding its global naval force, including submarines.

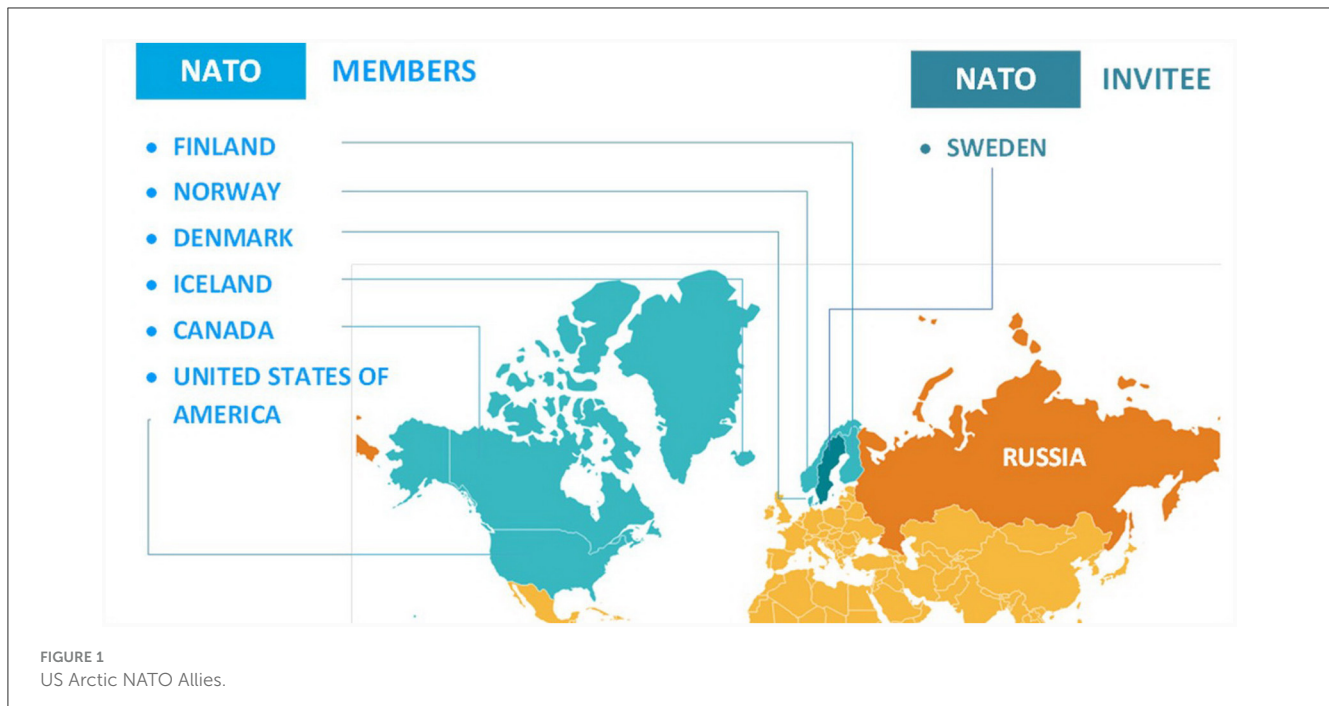
The Swedish government intends to foster deeper security and defense cooperation within the Scandinavian and Euro-Atlantic contexts, with a focus on the European part of the Arctic, the Polar Cap, and the North Atlantic region.

### 3.3 Military capabilities and investments

Significant attention was given to the military exercises conducted by the US allies and NATO partners. The most prominent U.S. military investment in the Arctic region is the rotational deployment of two Marine companies in Norway, which commenced in 2017. Approximately 300 Marines were stationed at Værnes, in close proximity to Trondheim Airport in Norway. Although their location is technically situated below the Arctic, their strategic significance is heightened due to their close proximity to the Norwegian-Russian border. In 2018, the number of rotational forces increased to 700. Russia has expressed discontent with the presence of these Marines, describing it as an "attack" and a betrayal by the Norwegians. This capacity to provoke such reactions from Russia underscores the significant geopolitical impact that the mere presence of marines can have ([North Atlantic Treaty Organization's Allied Air Command, 2021](#)). Notably, in early 2021, over 1,000 Marines arrived for a winter exercise in northern Norway ([Rognstrand, 2020](#)), and the US Air Force bombers landed at the Norwegian air base in Erland ([North Atlantic Treaty Organization's Allied Air Command, 2021](#)).

Additionally, the joint military exercises, such as Arctic Edge, Arctic Eagle/Patriot, Noble Defender Air Defense Operations, ICEX Underwater Amphibious Exercises, and the annual NORAD Vigilant Shield exercise, Nanook-Nunalivut operations, also hold significance in the region ([U.S. Northern Command, 2022](#)). It is also noteworthy to acknowledge the contribution of Norway, which conducts the "Cold Response" exercise biennially. These exercises engage 27 countries and ~30,000 military personnel, serving to bolster the collective commitment to regional security ([Mikkola, 2019; Kopra and Wall, 2022](#)).

US military bases in the Arctic region play a distinct role in the United States' Arctic policy. Denmark and Greenland, in particular, hold a special position as they have collaborated and continue to cooperate with the United States in the development of the Pituffik Space Base (SB; previously known as Thule Air Base). The Pituffik SB, a crucial military facility in the Arctic, owes its existence to agreements between the United States and the Kingdom of Denmark. These agreements pertain to mutual defense and grant space superiority. Notably, the US Department of the



Air Force has recently entered into a new maintenance contract for the Pituffik SB. The contract, which was announced by the US Department of Defense on December 16, 2022, has a maximum value of \$3.95 billion. The new maintenance contract is now under the responsibility of a newly formed company called Inuuk A/S, with 51% ownership by a Greenlandic-Danish company and 49% ownership by an American company Vectrus (U.S. Embassy Consulate in the Kingdom of Denmark, 2022).

Another significant base in the region is located on Icelandic territory. The US has maintained a military presence in Iceland since World War II, and Keflavik Air Base serves as a key facility for the US military activities in the Arctic (Mikkola, 2019). In addition to the bases mentioned earlier, it is also important to emphasize the role of the island of Svalbard, which became part of Norway under the Svalbard Treaty (Arctic Portal, 1920). This island can indirectly enhance the regional role and military-political positions of the United States in the Arctic region due to its geostrategic location.

### 3.4 NATO

When examining Arctic partners, it is necessary to consider the influential military-political organizations of which they are members. NATO, NORAD, and NORDEFCO have a significant impact on cooperation and interaction in the region, serving as platforms for regular dialogue, information exchange, and joint decision-making. In terms of NATO, it is worth noting the recent enlargement. Russia's war in Ukraine accelerated the transatlantic aspirations of Scandinavian countries, specifically Sweden and Finland, which wanted to resolve military risks. The accession of Finland and Sweden to NATO will bring new military capabilities, strategic positions, and political support to the alliance (Kopra and

Wall, 2022). Finland's contribution includes the deployment of F-35 fighter jets, while Sweden brings Patriot anti-aircraft missile systems. Since the mid-1990s, Finland has maintained relations of a privileged partnership with NATO and opted to align its armed forces with the alliance's standards. In 2014, the country signed an agreement with NATO, granting it the right to deploy contingents on Finnish territory and conduct exercises there. In 2017, Finland joined the NATO-initiated structural rapid reaction unit—the Joint Expeditionary Force. Finally, on April 4, 2023, Finland became the 31st member of the North Atlantic Alliance (North Atlantic Treaty Organization, 2023). It is worth emphasizing that Finland holds a strategic position between the Baltic Sea and the Arctic Ocean, enabling the US and NATO to access the Arctic region through Finnish air and sea routes.

### 3.5 Icebreaking fleets

It is worth highlighting the strengthening factor represented by the icebreaking fleets of the NATO countries. Several Arctic states within the alliance possess icebreaking capabilities and can contribute to NATO's icebreaking fleet in the Arctic. Canada, for instance, maintains a significant Coast Guard icebreaking fleet comprising two heavy, seven medium, and nine light icebreakers. To replace its aging fleet, additional icebreakers are currently under construction. For this purpose the Government of Canada announced the construction of two new polar icebreakers in 2021, with an estimated delivery date of 2030. Additionally, the Arctic regions of Canada are patrolled by ships and vessels of the Royal Canadian Navy (Government of Canada, 2022). Furthermore, it is worth noting other countries with icebreakers. Finland boasts a fleet of 10 icebreakers, including four heavy icebreakers.

Norway has two icebreakers and Denmark has four icebreakers ([United States Coast Guard, 2017](#)).

### 3.6 NORAD

Another essential organization within the realm of North American security is the North American Aerospace Defense Command (NORAD). It is a binational organization between the US and Canada, tasked with aerospace warning, aerospace surveillance, and maritime warning for North America. Initially focused on aerospace warning and control, a third mission, maritime warning, was added in 2006. To enhance military cooperation in the Arctic between the US and Canada, the Tri-Team Arctic Cooperation Framework was established in 2012 ([North American Aerospace Defense Command, 2020](#)). Given Russia's growing military capabilities and assertiveness, the NORAD's mandate to detect, deter, and respond to threats has become increasingly crucial.

Recognizing the global nature of the threat and the credibility of this bi-national command, the NORAD is developing requirements to safeguard the US and Canada from advanced cruise missiles. In fulfilling this role, the command collaborates closely with the US military, the Canadian Joint Operations Command, and various other partners from the US Department of Defense and the Canadian Department of National Defense. This collaborative effort ensures cost-sharing and fosters a shared understanding of the threat and the necessary actions to address it ([North American Aerospace Defense Command, 2021](#)).

### 3.7 NORDEFECO

If the NORAD unites Canada and the USA, then the Scandinavian countries coordinate their defense policies and mechanisms through the Nordic Defense Cooperation (NORDEFECO). Under the Norwegian chairmanship of the NORDEFECO in 2018, an ambitious Vision 2025 was adopted, which demonstrates the Nordic countries' commitment to enhancing defense cooperation "in times of peace, in times of crisis, or conflict." Furthermore, in autumn 2020, Norway, Sweden, and Finland signed a statement of intent to expand operational cooperation, aiming to facilitate joint planning and coordination of operations in the North Calotte region.

Collaborative scientific efforts, data sharing, and joint research initiatives with Arctic allies contribute to a comprehensive knowledge base that informs decision-making and policy formulation. Norway is home to several leading Arctic research institutes, such as the Norwegian Polar Institute and the University of Tromsø. Norway's expertise in Arctic research can support the US efforts to gain a deeper understanding of the region and develop strategies to address key issues. With significant economic interests in the Arctic, including oil and gas exploration, shipping, and fishing, Norway's research contributions are invaluable ([Norwegian Ministry of Foreign Affairs, 2020](#)). Sweden, on the other hand, places great emphasis on climate research in the Arctic. Through long-term measurements spanning up to a century, Sweden has

made significant contributions to global understanding of climate change. The country boasts research stations in Abisko and Tarfal, and also the Kiruna-based EISCAT12 radar.

[Figure 2](#) presents a factorial model, illustrating the reinforcing and integrating factors for clarity.

Therefore, we emphasize that the allies and military-political partners of the United States, particularly those within NATO, play a pivotal role in bolstering the influence of the United States in the Arctic region. The alignment of priorities and objectives among these allies, as evidenced by their respective Arctic strategies, underscores their shared dedication to regional security. The presence of the US military forces, joint exercises, and research collaboration further enhance cooperation and decision-making in the region. Heightened concerns regarding increased Chinese and Russian involvement in the Arctic accentuate the importance of collective action in addressing potential risks and threats. In summary, these alliances, partnerships, and collaborative initiatives significantly contribute to fortifying the position and influence of the United States in the Arctic.

### 3.8 Dividing and weakening factors

However, there are also various areas of contention among the Allies in the Arctic. These factors have the potential to create divisions or weaken the interests and role of the United States in the region. These factors include differing priorities and policies among Arctic allies, competing territorial claims, limited military capabilities, domestic political factors, economic interests, and more. Over the past decade, individual NATO members and partners with territory or territorial waters in the Arctic, such as Canada, Denmark, Iceland, Norway, Sweden, Finland, and the United States, have been actively advancing their respective national Arctic interests.

### 3.9 National interests first

Analysis of official documents and strategies from the US allies revealed conflicting facts and theses that do not align with collective interests in the region. For example, Canada's Arctic and Northern Policy Framework ([Government of Canada, 2019](#)) emphasizes Canada's enduring sovereignty in the Arctic, the need for a strengthened Canadian military presence, and bilateral security cooperation without explicit reference to NATO. Canada's Arctic and Northern Policy Framework ([Government of Canada, 2019](#)) also highlights the intent to seek amicable resolutions to outstanding border disputes, including the disagreement with the United States over the status of the Northwest Passage, which Canada considers "inland waters" while the US regards it as an international strait through which ships must have unrestricted passage.

The Kingdom of Denmark Strategy for the Arctic ([Denmark, Greenland and the Faroe Islands, 2011](#)) aims to strengthen its status as a global player in the Arctic by maintaining a visible military presence in the region. Iceland's 2021 policy on Arctic issues acknowledges Russia's legitimate interest in ensuring its security

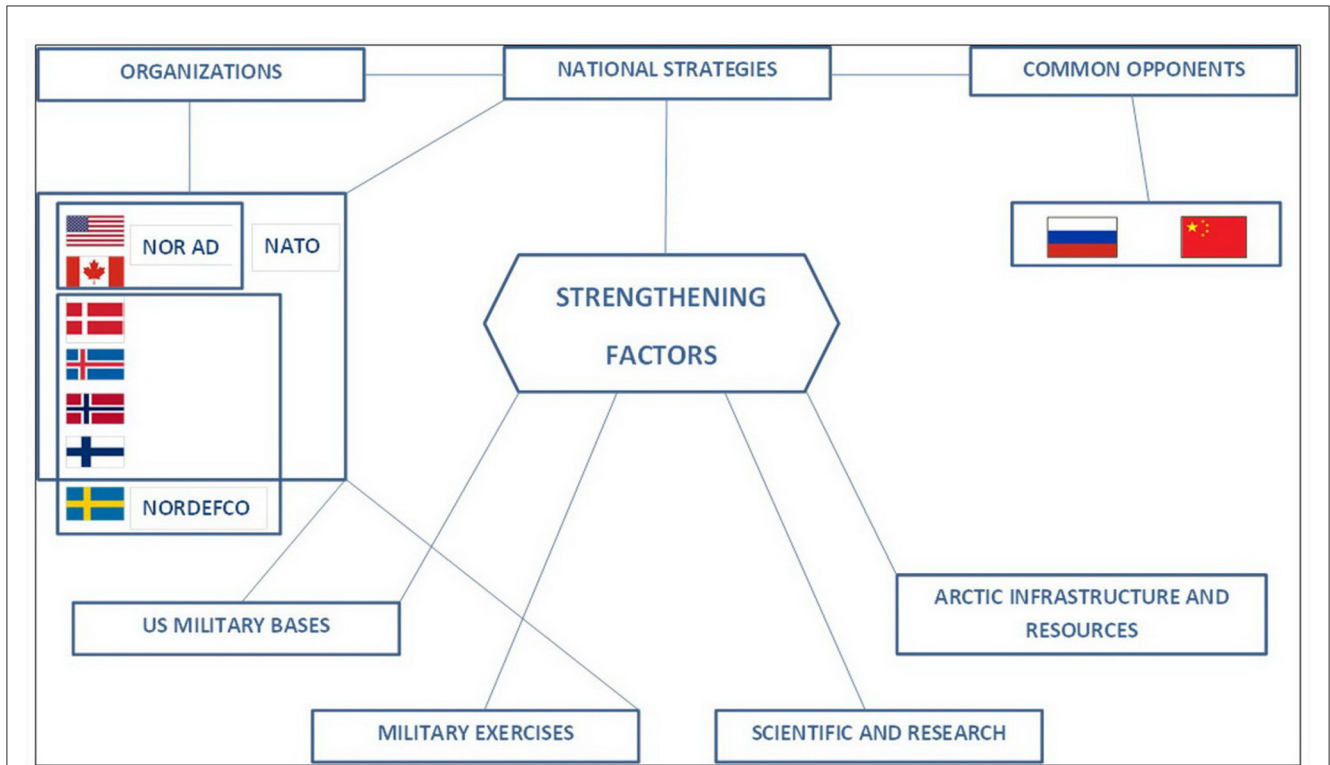


FIGURE 2 Factors that strengthen collective interests and forces.

and defense in the changing Arctic region. Finland’s Strategy for Arctic Policy ([Publications of the Finnish Government, 2021](#)) focuses on promoting Arctic cooperation in the context of Nordic cooperation, bilateral relations with Russia, the US, and Canada. Notably, the priority order in the Finnish strategy places Russia ahead of the United States and Canada, indicating foreign policy priorities for that period.

Sweden’s strategy for the Arctic region ([Government Offices of Sweden, 2020](#)) underscores the fundamental importance of upholding freedom of navigation in the Northeast and Northwest Passages in accordance with international law and resolving disputes through diplomatic means. This position on the Northwest Passage contradicts Canada’s national interests and sovereignty, further contributing to contentious dynamics among the US allies in the Arctic.

### 3.10 Territorial disputes

The next factor that has the potential to create divisions among partners is territorial disputes, which are illustrated on the map ([Figure 3](#)).

Canada’s submission to the United Nations Commission on the Limits of the Continental Shelf (CLCS) on May 23, 2019, highlights competing claims not only from Russia but also from Denmark. As an Arctic state due to Greenland, the Kingdom of Denmark asserts its claim to an area of ~895,000 km<sup>2</sup> in the Arctic Ocean, a significant portion of which overlaps with the claims of both Russia

and Canada, as previously mentioned. Denmark has proposed the hypothesis that the Lomonosov Ridge ([Jacobsen, 2016](#)), a 1,070-mile (1,721 km) seamount chain stretching from Ellesmere Island in Canada’s Kikiktaaluk region to Russia’s New Siberian Islands, passing through the North Pole, is a submerged part of Greenland and thus Danish territory. However, the current dispute revolves around the question of ownership, with Denmark claiming it as part of Greenland, Russia asserting it as an extension of the Siberian archipelago, and Canada maintaining it as an extension of Ellesmere Island.

### 3.11 Economic interests—military risks

The economic interests of Arctic allies can sometimes pose strategic risks and threats to collective security interests. Foreign investments, particularly from China, in certain countries within the region have reached a level where they can influence the policies of those countries. This influence is often achieved by investing in sensitive and strategic sectors. An example of this is the Chinese investments in mining projects in Greenland over the past decade. In 2017, the Prime Minister of Greenland visited China to attract investments, which led to China making a bid for the airport ([Auerswald, 2019](#)). The growing Chinese influence in Greenland has raised concerns for the United States, as it affects the US interests in the region. Imposing restrictions on Chinese investments may only be feasible if Greenland can find alternative sources of income. Consequently, Greenland’s appeal for Chinese

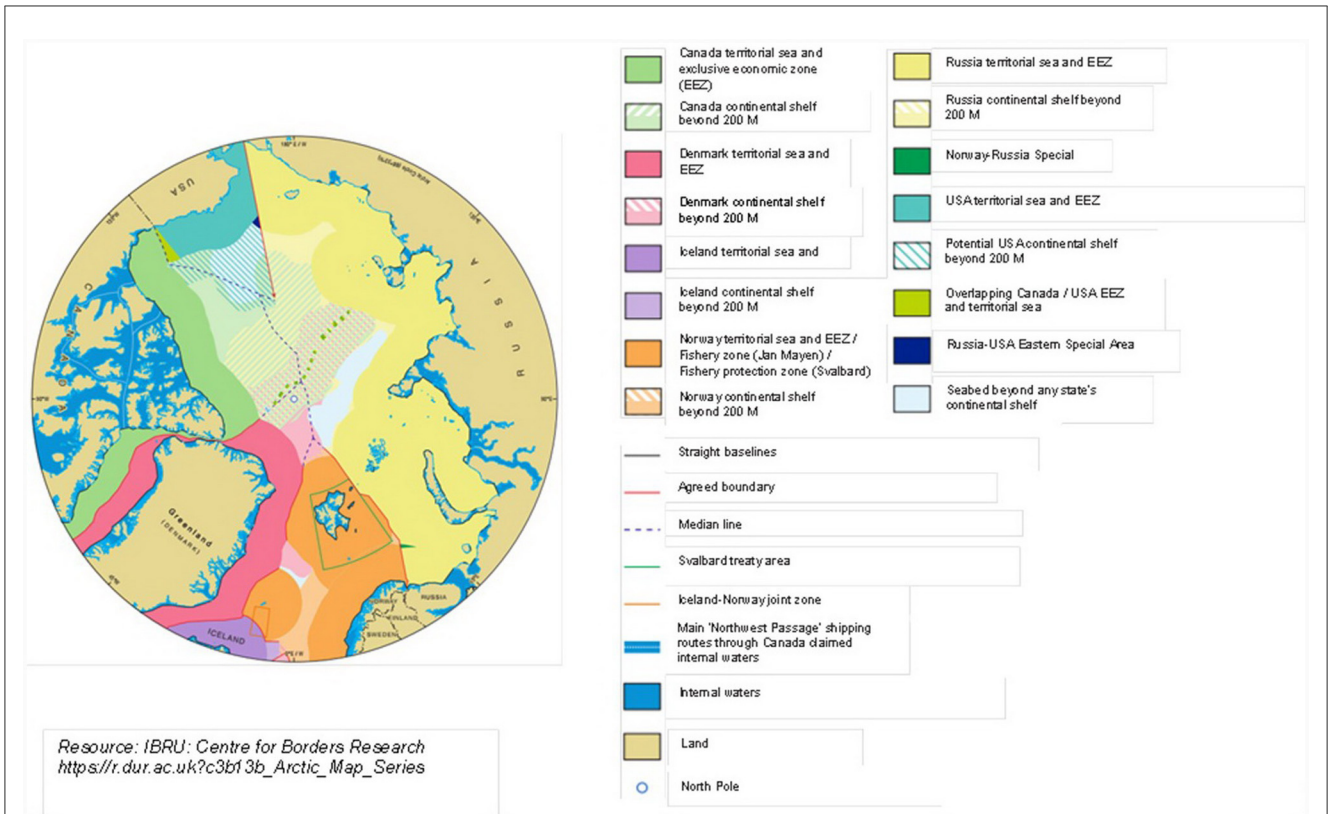


FIGURE 3 Maritime jurisdiction and boundaries in the Arctic region (IBRU: Centre for Borders Research, 2023).

investors and construction companies to help expand its airports has prompted Denmark and the US to strategically invest in infrastructure development on the island (Conley and Wall, 2021). According to Pincus and Berbrick (2018), this Chinese interest in Greenland presents two concerns for the United States. Firstly, many of the facilities attracting Chinese investments have dual-use capabilities, which means they could potentially be utilized as part of Chinese military infrastructure in the Arctic, such as refueling stations for warships. Secondly, due to the small size of Greenland's economy, Chinese companies can easily hold a substantial portion of the island's economic activity, providing China with leverage to pursue military and political interests, including interfering with American presence (Pincus and Berbrick, 2018). China also has close relations with Iceland. This is demonstrated by the Icelandic-Chinese Free Trade Agreement signed in 2013 and the establishment of the Arctic Circle Conference, which China actively participates in. China has a significant diplomatic presence in Iceland and collaborates on research projects (Olesen and Sorensen, 2019).

### 3.12 NATO's shared borders with Russia

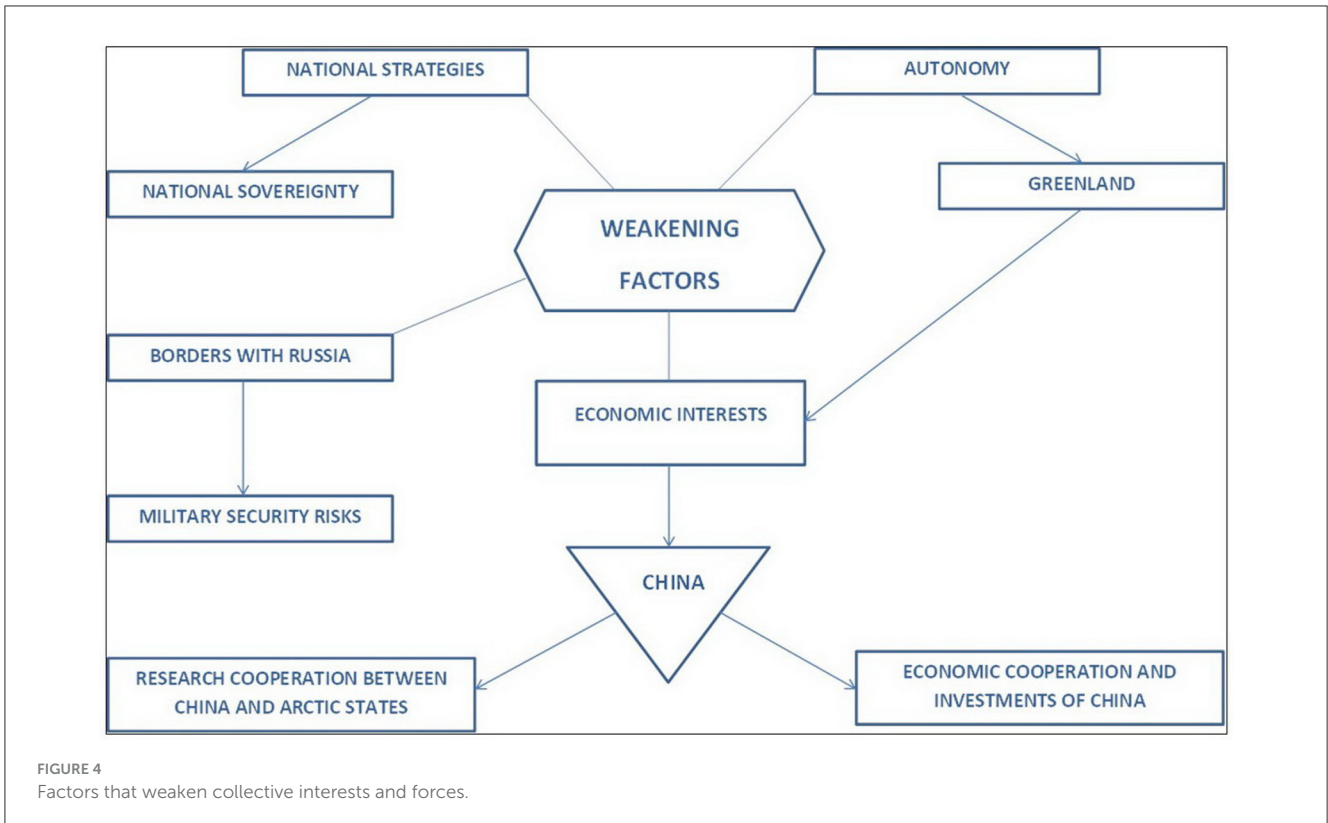
Furthermore, another factor that cannot be overlooked is the shared state borders of some Arctic allies with the Russian Federation. The Arctic allies that have a common border with Russia face specific military risks, which can act as a divisive factor

within the alliance. Proximity to Russian military installations also creates security concerns that require individual responses. Finland and Sweden, for instance, remained outside of the alliance until the onset of the Russian-Ukrainian conflict due to concerns about potential Russian responses. Additionally, their membership within NATO complicates defense planning, given that both countries are within range of various Russian military systems, and Finland shares a border with Russia spanning ~1,340 km. The complex legal status of the Norwegian island of Svalbard also presents a vulnerability that may attract malicious actors employing hybrid tactics (Conley and Wall, 2021). For example, the Chinese research station Huang He is located on the island of Svalbard (Olesen and Sorensen, 2019).

The factorial model of weakening and disintegrating factors is depicted in Figure 4.

It is important to acknowledge that there are multiple factors that can cause divisions and weaken the interests and role of the United States in the Arctic region. These factors encompass varying priorities and policies among Arctic allies, conflicting territorial claims, limited military capabilities, domestic political dynamics, and economic interests. Discrepancies in national strategies and territorial disputes, such as the disagreement between Canada and the United States regarding the Northwest Passage, contribute to tensions among the US allies. Furthermore, the increasing influence of China in the region, particularly through strategic investments, raises concerns about the US interests and collective security.





The shared borders between some Arctic allies and Russia introduce specific military risks and security challenges that necessitate individual responses and potentially complicate NATO’s defense planning. Additionally, the complex legal status of Svalbard and the presence of foreign research stations create vulnerabilities and hold strategic importance for various stakeholders. These factors underscore the potential difficulties and obstacles in maintaining unity and collective action among the US allies in the Arctic.

## 4 Discussion

An analysis of the Arctic strategies among the US allies and partners revealed a significant alignment in their priorities and goals, particularly regarding the commitment to Arctic security. Countries such as Norway, Canada, Iceland, and Denmark emphasize the importance of the NATO and the US in their strategies, highlighting their role in ensuring regional security and stability. It should be noted that maintaining a balance between deterrence and appeasement toward the Soviet Union, and later Russia, has been a key component of Norwegian security policy for decades. Norway actively contributes to strengthening the NATO’s command structure and its ability to plan and lead collective defense operations, including in neighboring areas. Analyzing the strategy of Norway, we came to the conclusion that this country is the only one among those listed that is most in solidarity with the interests and policy of the US in the region.

As Iceland lacks a permanent military force, it depends on cooperation with other countries and international organizations

(Parliamentary Committee on the Formulation of a National Security Policy for Iceland, 2023). Since 2008, the NATO has been responsible for defending Iceland and protecting its airspace. The example of Iceland shows us that some countries, due to their limited military capabilities, are forced to delegate their powers to interstate defense structures.

However, the strategies of Finland, Sweden, and Iceland reflect concerns about the increasing activities of China and Russia in the Arctic region. These countries express apprehensions regarding the potential risks and threats associated with China’s expanding economic and strategic interests in the region, as well as Russia’s military buildup and control over the Northern Sea Route. The ambitions of China and its efforts to enhance its role in the Arctic may create conflicts of interest, particularly among major powers, and escalate tensions in the region (Huebert, 2019). In relation to this matter, we can take note of the Sweden’s example, which recognizes the need for increased attention to military cooperation between China and Russia, specifically in relation to potential military collaboration focused on the Arctic. At the same time, Sweden notes the importance of maintaining the freedom of navigation along the Northeast Passage in accordance with international law and resolve disputes regarding restrictions on free navigation through diplomatic means. This stance on free navigation aligns with that of the US, which also advocates for keeping the Northern Sea Route open.

If we focus our view on disintegrating elements, then contradictions also come to light. For example, Canada’s strategy emphasizes its enduring sovereignty in the Arctic and the need to strengthen its military presence. Disputes over issues such as the status of the Northwest Passage contribute to potential

tensions across borders and have implications for political, trade, and security cooperation. Since 2010, regulations in the Northern Canada Vessel Traffic Service Area require ships to register with the Canadian Coast Guard to navigate the passage. The dispute over the Northwest Passage could further strain cross-border relations, affecting bilateral cooperation in politics, trade, and security.

The national strategies of the US allies and partners in the Arctic reveal a complex landscape characterized by shared security commitments and differing interests. While there is a shared commitment to security in the Arctic and shared concerns about Chinese and Russian actions, there are diverging views on issues such as free navigation and territorial sovereignty that complicate the region's political dynamics.

Our analysis of military exercises in the Arctic region conducted by the US allies and NATO partners highlights their significant strategic value. A notable investment by the United States has been the rotational presence of Marines in Norway since 2017, which has gradually expanded over time. This presence near the Norwegian-Russian border, initially with around 300 Marines and later increased to 700, demonstrates the Marine Corps' commitment to NATO's security and that of Norway. This rotational presence showcases the geopolitical influence that even modest forces can exert simply through their presence.

Nordic countries' participation in NATO exercises, such as "Trident Juncture" in 2018, has been significant (Wegge, 2020). The Norwegian Army's "Nord" Brigade participated in the "North Wind" exercise in northern Sweden in 2019, and joint training programs involve regular flights with Norwegian, Swedish, and Finnish fighter jets over the North Calotte region. This cooperative training has further evolved with the "Arctic Challenge" exercise (ACE), now one of Europe's largest air force exercises.

Overall, these military exercises conducted by the US allies and NATO partners in the Arctic region demonstrate their collaborative efforts to enhance regional security, promote interoperability, and maintain deterrence. By strengthening defense capabilities and influencing regional security dynamics, these exercises play a pivotal role in preserving stability and safeguarding the interests of the Arctic states and their allies.

The US military bases in the Arctic region, including the Pituffik SB in Greenland and the Keflavik air base in Iceland, hold significant importance in the US Arctic policy and contribute to its strategic objectives. The Pituffik SB offers strategic value for several reasons. Firstly, it houses an essential early warning radar system that provides strategic alerts and space surveillance, detecting ballistic missile launches and monitoring space objects. Secondly, its strategic location in the Arctic region allows the US to monitor activities in the area, including those of rival nations like Russia and China. Thirdly, the base supports military operations and scientific research, facilitating telemetry, tracking, and satellite access (U.S. Department of Defense, 2020a). Additionally, the base contributes to scientific research in the Arctic, particularly in atmospheric science, climate models, and weather observations, providing valuable data for ongoing research and climate monitoring efforts (U.S. Department of Defense, 2020b).

Similarly, the Keflavik Air Base in Iceland plays a crucial role in deterring Russian long-range bombers and serves as a gateway to the North Atlantic and the East Coast of North America. Its

location in the GIUK gap highlights its strategic significance in protecting vital areas and providing the US with essential access to key air and sea routes (Miller, 2022). The US commitment to maintaining and enhancing military infrastructure in Iceland is evident through recent contracts awarded by the US Air Force Installation and Mission Support Center to upgrade the airfield infrastructure at the Naval Air Station Keflavik. These projects align with the European Deterrence Initiative, aimed at strengthening the readiness and responsiveness of the US Air Force, the NATO forces and the European allies (Cisneros, 2020).

These bases provide crucial early warning systems, enhance the geopolitical landscape, support military operations and scientific research, and ensure security and stability.

The Arctic region has gained significant attention due to its strategic importance, abundance of natural resources, and geopolitical dynamics. In the context of international relations, the Arctic is considered a complex system that encompasses various military-political organizations.

It is important to emphasize that the new enlargement of the NATO, namely the accession of Finland and Sweden to the Alliance, brings new capabilities. Both countries offer valuable resources and expertise in the Arctic infrastructure development, military cooperation, polar research and Arctic cooperation initiatives (Kopra and Wall, 2022). Finland's recent purchase of 64 F-35A fighters further enhances its air force capabilities. Sweden holds a strategic advantage with a modern Air Force, Patriot anti-missile systems and submarines. Also the Swedish island of Gotland in the Baltic Sea is strategically located near the Russian Baltic Fleet headquarters in Kaliningrad (Forsberg et al., 2022). The armed forces of Sweden and Finland are highly capable of conducting military operations in Arctic conditions, participating in regular intensive exercises in the snowy forests of Scandinavia. Finland's accession to NATO addresses a significant defense gap and extends the length of the NATO's borders with Russia (Patassini, 2023).

At the same time, there are also negative consequences of Finland's accession. The NATO membership can be seen as a signal that Finland is getting too close to the US, which could undermine its credibility as a neutral and non-aligned state. This may make it difficult for Finland to act as an intermediary—i.e., the loss of Helsinki the status of a neutral negotiating platform. Along with Vienna and Geneva, the Finnish capital hosted the most difficult summits and negotiations in extremely difficult historical circumstances.

The North American Aerospace Defense Command plays a vital role in aerospace and maritime warning for North America. The NORAD, similar to any complex military system, possesses weaknesses and vulnerabilities that can be exploited by adversaries or competitors. It is worth noting that Command's radar coverage has a limited range, making it unable to detect and track aircraft beyond that range, thereby posing challenges in detecting threats originating from outside the region and the Arctic. Despite utilizing numerous sensors and radars, the system has limitations and may not effectively detect certain types of threats such as stealth aircrafts, low-flying aircrafts, or drones. Moreover, the cost of maintaining and upgrading the NORAD system can be substantial, necessitating adequate funding from both the US and Canada to ensure its efficiency and reliability. Some technologies within the system

are decades old and may face issues of obsolescence or failure, leading to costly and time-consuming upgrades. Strengthening the NORAD's capabilities aligns with the broader efforts to address security challenges and protect the US interests in the Arctic.

By pooling resources, sharing experiences, and leveraging technological advancements, these allies strengthen their collective defense, deterrence, and overall security in the Arctic. However, the United States' icebreaking fleet is significantly weaker than that of other Arctic nations, particularly Russia. With only two active icebreakers, maintaining a robust surface presence in the Arctic is a concern (Lopez, 2022). In this context, the preceding administration of the United States, under the leadership of President Trump, brought attention to the matter of icebreakers. In June 2020, a memorandum was issued, advocating for the expeditious enlargement of the U.S. icebreaker fleet. This directive urged relevant departments to explore the potential establishment or leasing of icebreakers from foreign shipbuilders. Additionally, the memorandum stipulated the need to identify both domestic and two international facilities for the mooring of these icebreakers (Administration of Donald J. Trump, 2020). Fortunately, some of the NATO Arctic states have icebreaking capabilities and can contribute to the alliance's icebreaking fleet. Finland, known for advanced icebreaking technology, has proficient icebreaking shipyards that can construct heavy icebreakers, including combat icebreakers, for the United States. Finnish shipyards like Aker Arctic Technology, Helsinki Shipyard Oy, and Turku Repair Yard have a strong track record in building icebreakers. Finland possesses a significant number of icebreakers and is a global leader in icebreaking, having designed and built a substantial share of the world's icebreakers (Publications of the Finnish Government, 2020). Sweden also has valuable experience and operates five icebreakers, including a heavy icebreaker, which can support commercial shipping growth, environmental monitoring, and Arctic research (Swedish Maritime Administration, 2021).

Territorial disputes are a significant factor that can strain relations among Arctic countries and create disagreements among partners. Arctic nations, including Canada, are using updated seabed maps to pursue claims for expanded continental shelves and assert sovereignty over additional territory, particularly for mining purposes. According to the United Nations Convention on the Law of the Sea, countries can potentially extend their Exclusive Economic Zones (EEZ) by demonstrating that their continental shelf extends beyond the EEZ. The competition for the North Pole has intensified, with Canada being the third country to assert sovereignty, supported by scientific evidence, over a substantial portion of the Arctic Ocean, including the North Pole itself. The successful claimant would also gain control over ~55,000 square miles of surrounding sea. These competing claims create tensions among NATO allies. An example of such tensions was the disputed status of Hans Island between Denmark and Canada.

The economic interests of individual Arctic partners present strategic risks and threats to the collective security of Arctic allies. Chinese investments in certain Arctic countries have reached a level where they can significantly influence the local economy and potentially shape these nations' policies. The involvement of Chinese companies in sensitive and strategic sectors, such as mining projects in Greenland, raises concerns for the United States

and its allies. The United States is also concerned about Iceland's relationship with China, as it sees potential implications for regional security and economic interests (Cronin, 2021). Iceland's cooperation with China in Arctic management is viewed cautiously by the US. China's economic involvement in Iceland, including investments in critical infrastructure and technology, raises concerns about China's activities in the Arctic and its potential for military expansion (Chess, 2019; Parsons, 2022). China's efforts to enhance terrestrial and satellite communications in the Arctic raise concerns about shipping safety and potential military interests.

The shared state borders between the Arctic allies and the Russian Federation are a significant factor that cannot be overlooked when considering regional security and collective interests. Allies that share a border with Russia face specific military risks that have the potential to create divisions within the alliance. The proximity to Russian military installations also poses security challenges that require individual responses.

For instance, Norway's role as a "listening post" for NATO on the alliance's northern flank makes it particularly vulnerable in case of deteriorating relations with Russia. Its common land and sea border with Russia necessitate the importance of engaging in dialogue with Moscow. It is crucial to differentiate between the Arctic and the "Far North" in terms of the border with Russia and the security issues associated with having a resurgent neighbor. Norway strives to address its military gap with Russia through NATO membership and bilateral relations with the United States in what is commonly described as an asymmetric relationship.

## 5 Conclusion

The strategic significance of the Arctic region has escalated due to heightened competition from Russia and China, the effects of climate change, and increasing commercial interests, prompting the United States to seek robust alliances and partnerships with key regional allies. An examination of crucial the US allies and partners in the Arctic unveils a system of relationships that contribute to overall strength and cohesion in their interactions.

Foremost among these allies are NATO member countries, including Canada, Norway, Denmark (via Greenland), Iceland, and Finland, alongside NATO partner Sweden. These nations form the primary Arctic states within the Arctic Council, sharing common values, military capabilities, and a commitment to regional security, which bolsters the potential for collective defense in the Arctic.

Furthermore, common interests, geostrategic positioning, historical ties, shared military systems and platforms, NATO membership, joint military exercises, aligned positions on Arctic governance, as well as the presence of common rivals in the region, namely Russia and China, foster cooperation among the US allies in the region. The US military bases such as the Pituffik Space Base in Greenland, Keflavik Air Force Base in Iceland, the Marine Rotary Force in Norway, and the North American Aerospace Defense Command provide strategic advantages and facilitate collaborative efforts. Additionally, initiatives like the European Deterrence Initiative (EDI) contribute to enhancing the readiness and responsiveness of the armed forces of the United States, NATO member states, and European allies in the Arctic.

However, certain factors may impede or weaken the shared interests of US allies in the Arctic. Disagreements over territorial claims, divergent national policies and economic priorities, geopolitical vulnerabilities, deepening economic and trade ties with China, and other factors can create challenges and hinder cooperation among Arctic allies. Disputes between Canada and Denmark regarding the Lomonosov Ridge, divergent foreign economic priorities among Arctic countries, and disagreements between the United States and Canada concerning the Northwest Passage can create tensions that require diplomatic efforts to resolve, potentially hindering the establishment of a unified position in the Arctic.

The impact of these reinforcing and weakening factors on the overall position and interests of the United States in the Arctic region is multifaceted. While strong alliances and partnerships bolster the US position, diverging interests and disputes can present challenges for achieving a cohesive approach. Managing these challenges, fostering dialogue, and finding common ground are crucial for the United States to ensure a coherent and effective strategy in the Arctic.

Strengthening alliances, cultivating cooperative relationships, and resolving disputes among the US allies in the Arctic are vital for protecting the US interests and maintaining a robust presence in the region. By leveraging the strengths of its allies, addressing challenges, and adopting a collaborative approach, the United States can navigate the evolving Arctic landscape effectively, promote stability and security, and advance its strategic objectives in this crucial region.

These findings have significant implications for policymakers and stakeholders involved in Arctic affairs. Understanding the intricate dynamics of relations among the US allies and partners in the region is critical for fostering cooperation, resolving disputes, and identifying areas of shared interest. By recognizing and capitalizing on reinforcing factors while mitigating weakening factors, the United States and its allies can intensify

their joint efforts to promote stability, sustainable development, environmental protection, and effectively implement containment policies in the Arctic.

## Author contributions

AD: Conceptualization, Methodology, Software, Validation, Writing – original draft. RY: Formal analysis, Investigation, Resources, Writing – review & editing. TK: Data curation, Writing – original draft, Writing – review & editing. GI: Funding acquisition, Project administration, Supervision, Visualization, Writing – review & editing.

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