ICE Pact: A New Era of Arctic Cooperation and Strategic Power Dynamics

August 2024

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Introduction

- The recently announced ICE Pact between Finland, Canada, and the United States marks a significant milestone in the Arctic cooperation. Unveiled at the NATO summit in Washington DC on 11 July 2024, this trilateral agreement aims to enhance the regional capabilities and coordination of these NATO allies. The pact arrives at a time when the Arctic is increasingly viewed as a critical frontier, both strategically and economically.

- The Arctic region has long been a focal point of geopolitical interest due to its abundant natural resources and strategic maritime routes. In recent years, the melting ice has opened new sea lanes, heightening the urgency for effective governance and safe passage in these waters. The ICE Pact, short for International Cooperation for Enhanced Arctic Capabilities, is a direct response to these evolving challenges. It seeks to pool resources and expertise among the three nations to build and deploy icebreakers more efficiently.

- This pact is significant on multiple fronts, encompassing technical, commercial, and political dimensions. Technically, developing and building icebreakers is a technologically complex and expensive endeavour. Through collaboration, Finland, Canada, and the US can share the costs and knowledge required to advance this critical infrastructure. This strategic cooperation ensures that these nations can enhance their icebreaking capabilities without bearing the full financial burden individually. Moreover, shared technological advancements can lead to more innovative and effective icebreaker designs.

- Commercially, increasing the number of icebreakers will facilitate safer and more frequent maritime traffic through the Arctic sea lanes. This enhanced capability will not only boost trade but also improve the ability to respond swiftly to emergency situations, thereby reducing insurance costs for shipping companies. By contributing to safer navigation and increased commercial activity, moreover, the ICE Pacts stands to benefit the global economy significantly.

- Politically, finally, the ICE represents a strategic move to counterbalance Russia's current dominance in Arctic maritime affairs. By revitalising the shipbuilding sector within NATO allies and activating western-dominated sea routes, such as those of Canada's[1], the pact reduces reliance on Russia's Northern Sea Route (NSR). This shift allows NATO members to not just better surveil the Arctic's maritime domain but to also better negotiate and set international standards for safe passage in the Arctic, thus ensuring that the rules of navigation are aligned with their strategic interests.

[1] The Canadian Arctic provides three main routes: one to the port of Churchill and other communities in Hudson Bay via Hudson Strait; one to the Beaufort Sea via Bering Strait or the Mackenzie River; and a third through the Arctic Archipelago via the Northwest Passage.

Significance of the Arctic Maritime Domain

- The Arctic maritime domain has emerged as a crucial alternative to traditional, conflict-prone maritime routes such as the Red Sea. Recently for instance, two Chinese container ships set course for the Arctic, intending to use Russia's Northern Sea Route to connect ports in China with destinations in Europe. This route allows operators to bypass the tumultuous waters of the Red Sea without needing to detour via the Cape of Good Hope. Such developments underscore the Arctic's potential to offer a stable and viable alternative for international shipping.

- Moreover, the Arctic is rich in natural resources and offers significant reductions in travel time between Europe and Asia. It is estimated that more than 20 percent of the world's new, technically recoverable fossil fuel resources are in the Arctic which are in turn becoming accessible as climate change progresses. Additionally, the melting polar ice is making the Northeast Passage increasingly navigable. This route is the shortest sea lane from Europe through the Bering Strait to Asia, shortening the distance by approximately 25-35 percent compared to the Suez Canal route. These factors promise substantial cost and time savings for international trade, contributing to global trade growth and economic efficiency.

Importance of Icebreakers

- The significance of icebreakers in the Arctic cannot be overstated, given their role in maintaining navigable routes and enabling safe maritime activities in ice-covered waters. The United States, once a global leader in shipbuilding, has seen its capabilities diminish drastically, now ranking 19th worldwide with only 0.13% of global shipbuilding capacity. In stark contrast, China dominates the field, producing over half of the world's commercial shipbuilding output. This decline poses a strategic risk for the US, especially as revisionist powers like Russia and China expand their Arctic operations.

- At the same time, Russia's economy heavily relies on its northern maritime route, driving its leadership in icebreaking capabilities. As western sanctions limit its market for Arctic LNG and oil to Europe, Russia increasingly transports these resources eastward through the seasonally ice-covered Northern Sea Route to reach Asian customers. This necessity has spurred Russia to invest heavily in its icebreaking fleet, which now includes armed combat icebreakers such as the Ivan Papanin. Meanwhile, China's growing interest in the Arctic shipping is evident in its commissioning of its fourth polar-capable vessel, the Jidi.

- Given these developments, it is reasonable to suggest that the ICE Pact constitutes a strategic response to counterbalance both China and Russia's expanding Arctic capabilities. Equally important, it is also to hedge against the perceived growing strategic partnership between Beijing and Moscow in the Arctic, aiming to bolster Western presence and influence in the Arctic against the backdrop of increasing accessibility due to climate change.

Current Capabilities of Arctic States

- The current capabilities of Arctic states highlight the disparities and the urgent need for enhanced cooperation through initiatives like the ICE. The US has only two diesel icebreakers in the Arctic, compared to Russia's fleet of seven nuclear-powered icebreakers and around 30 diesel-powered ones, with more under construction. Russia's advancements include a new class of combat icebreakers equipped with high-speed guns and cruise missile launchers, while the US Coast Guard's Polar Security Cutter program faces significant delays and cost overruns. Russia's dominance in icebreaking is also evident in its plan for the construction of three new icebreakers under Project 22220, with two expected to come online by 2026.

- Finland, on the other hand, is an icebreaker superpower, primarily due to its ports freezing over every winter. Finnish shipyards have designed 80% and built 60% of the world's icebreakers, including the environmentally friendly Polaris, powered by both LNG and diesel. This expertise positions Finland as a crucial partner in the ICE Pact, capable of delivering polar-class vessels at a fraction of the cost and time it would take in the US. For its part, Sweden, put briefly, operates five ice breakers which are intended for use in the Baltic Sea during the winter season. Theoretically, these vessels can be put into service in the Arctic during spring and summer but Stockholm’s capacity for doing so is at best constrained. This is so given that it has traditionally utilised these seasons for carrying out routine maintenance work on its fleet.

- Last but not least, Canada has also been enhancing its icebreaking capabilities making significant investments in commissioning new vessels. Quebec-based shipbuilder Davies, in partnership with Helsinki Shipyards, is leading an ambitious program to build ten new icebreaking vessels, including a flagship polar icebreaker. Vancouver's Seaspan has delivered three new icebreakers for the Canadian Coast Guard, with more in the pipeline. Additionally, Irving Shipbuilding in Halifax is constructing Arctic Offshore Patrol Vessels for the Royal Canadian Navy and the Coast Guard. Overall, Canada is building or planning to build twenty-four icebreakers and is working closely with Finnish companies to leverage their expertise.

Potential Implications for Regional Affairs and States with Arctic Interests

- The increased presence and capabilities in the Arctic due to initiatives like the ICE Pact have profound implications for regional security and affairs. For Finland, which lacks an Arctic coastline, icebreakers represent a niche capability. This specialisation allows Finland to enhance its influence within NATO and the Arctic and play a critical role in the Arctic maritime affairs; a domain that has traditionally dominated by five littoral Arctic states. In doing so, Helsinki will be able to effectively put an end to its historical sidelining on the Arctic maritime domain by compensating for its geographical limitation with its technological and technical knowhow thereby acting as a critical enabler of regional shipping.

- For the United States and Canada, the ICE Pact presents an opportunity to significantly bolster their icebreaker fleets, benefiting both their navies and coast guards. Enhanced fleets will improve situational awareness in the Arctic, allowing better surveillance of the maritime domain and operationalisation of Canadian Arctic waterways. By offering icebreaking services to commercial vessels, furthermore, Canada can accelerate the development of its Arctic communities, integrating them more fully into the national economy. Given their remoteness, developmental projects in these communities have been traditionally slow and expensive due to the seasonal nature of transportation; itself a direct result of lack of ice breakers[2].

- Increased icebreaking capabilities also empower NATO, and in particular the U.S., to mitigate Russia's dominance in Arctic maritime affairs. With more icebreakers, NATO can better monitor Russian and Chinese activities in the region, ensuring a balanced power dynamic. However, this increased presence may heighten tensions with Russia concerning the rules and standards of safe passage and navigation. Russia imposes fees on operations passing through its Arctic waters for the icebreaking services it provides and asserts that its domestic laws apply to the Northern Sea Route. In contrast, Western Arctic members generally prefer treating Arctic waters as international, and thereby call for adherence to international law.

[2] The Canadian Arctic provides three main routes: one to the port of Churchill and other communities in Hudson Bay via Hudson Strait; one to the Beaufort Sea via Bering Strait or the Mackenzie River; and a third through the Arctic Archipelago via the Northwest Passage.

- How this difference of interpretation would play out is, at this point, an open guess. However, it is safe to assume that the persisting lack of an institutional venue for discussions on defence and security affairs in the Arctic[3] as well as the divergent allies stance on this issue are both set to lead to future conflicts over jurisdiction and navigation rights. One potential downside of this scenario is that it introduces an element of risk in insurers calculations, and therefore it could partially offset some of the antiquated gains in more cost effective Arctic shipping.

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Potential Opportunities for Private Sector Actors

- The increasing Arctic traffic and enhanced icebreaking capabilities are opening up significant opportunities for the private sector, particularly in shipping, the resource sector, and IT. This trend is best evident in the steady rise of LNG exports through Russia's Northern Sea Route (NSR). From January to April 2024 alone, 99 LNG voyages were completed, marking a 10% increase compared to 2021. These voyages primarily served destinations in France, Belgium, Spain, and transshipment near Kildin Island, close to Murmansk.

- Furthermore, the broader Arctic shipping landscape is expanding. According to an updated report by The Arctic Council Working Group on the Protection of the Arctic Marine Environment, PAME, the number of unique ships entering the Arctic Polar Code area increased by 37% from 2013 to 2023, with the distance sailed doubling to nearly 13 million nautical miles. This growth highlights the escalating activity in the region, with September 2023 alone seeing 1,122 ships entering the Polar Code area when Arctic sea ice was at its lowest extent. These developments underscore the growing strategic and commercial significance of the Arctic, making it a crucial area for future investment and development.

Shipping and cybersecurity/IT

- The shift towards both autonomous and green shipping, combined with increased broadband connectivity and navigability in the Arctic, presents significant opportunities for private sector actors in both the shipping and IT industries. The adoption of battery-powered vessels and cleaner fuels aligns with global sustainability goals, while advancements in satellite and internet coverage pave the way for autonomous shipping. As these developments take shape, ships' navigational systems are becoming more sophisticated and reliant on digital technologies. Consequently, robust cybersecurity measures will become increasingly essential to protect these systems from potential threats, ensuring the safety and reliability of Arctic shipping routes.

- Shipping is also poised to significantly impact the Arctic environment, second only to the extractive industry. Therefore, there is an emerging space for private sector stakeholders to collaborate on developing green and smart shipping solutions by forming joint ventures with local actors or initiating coordinated research and development projects. This approach is considered a safe bet, given that all Arctic states are committed to reducing maritime pollution and advancing clean technologies, despite varying levels of commitment. By pooling resources and expertise, private companies can drive innovations in battery-powered vessels and cleaner fuels, mitigating the environmental impact of increased maritime traffic. This not only consolidates their market share but also makes an invaluable contribution to the broader regional goal of sustainable shipping practices.

- Additionally, private sector actors in nations with strong maritime traditions and leading positions in innovation are well-equipped to enhance the Arctic's maritime infrastructure in two distinct yet interconnected ways. Building and maintaining icebreakers is a costly and highly technical endeavour that requires active participation from private sector actors. Realising the ICE's objectives will likely require a solid framework for public-private partnerships between participating governments and qualified private sector actors, specifically companies registered in and operating from allied countries due to the national security sensitivities associated with icebreaker building and design. While participation may not be open to all technically qualified entities, the Arctic maritime sector is poised to provide an attractive market for those that can obtain security clearance. This is especially true given that these

endeavours are likely to be complemented by a push towards the development of smart maritime ecosystems, similar to the One Sea Project, due to the region's harsh environment, remoteness, and small population size. Such initiatives, in conjunction with the development of AI-powered navigational systems for accurate mapping and predicting ice movements, are crucial. They would facilitate safer passages and bolster round-the-clock incident response capabilities, thereby promising increased surveillance, reduced operational costs, and enhanced region-wide search and rescue capacities.

Resource Sector

- The Arctic region holds significant energy potential, primarily in the form of vast reserves of oil and natural gas. According to estimates by the U.S. Geological Survey, the Arctic could contain about 13% of the world's undiscovered oil and 30% of its undiscovered natural gas. The region's energy resources are increasingly accessible due to melting sea ice, which opens new routes for exploration and drilling. This accessibility not only enhances the potential for resource extraction but also stimulates growth in the resource sector.

- The resource sector stands to gain immensely from the increased Arctic activity. Enhanced icebreaking capabilities provide better opportunities for mapping and exploratory work, crucial for tapping into the Arctic's vast resource potential. The ability to import and export goods to and from project sites more efficiently will facilitate resource extraction and development projects. Safer passage for goods due to a higher number of icebreakers ensures that supplies and outputs from resource projects can be transported reliably. Better situational awareness, facilitated by improved surveillance and monitoring capabilities, further enhances the safety and efficiency of these operations. Additionally, lower insurance costs, resulting from reduced response times and improved safety, make Arctic ventures more economically viable.

Conclusion

- The recently announced ICE Pact between Finland, Canada, and the United States marks a pivotal moment in Arctic cooperation, aiming to enhance regional capabilities and coordination among these NATO allies. Introduced at the NATO summit in Washington DC on 11 July 2024, the agreement underscores the strategic and economic significance of the Arctic as melting ice opens new maritime routes. ICE seeks to pool resources and expertise to build and deploy icebreakers more efficiently, addressing both the technical and financial challenges of icebreaker development.

- The Arctic region's importance is underscored by its rich natural resources and the potential for significant reductions in travel time between Europe and Asia. As traditional shipping routes face geopolitical instability, the Arctic presents a stable and viable alternative, promising substantial benefits for international trade. Icebreakers play a critical role in maintaining navigable routes, making the ICE Pact's focus on enhancing these capabilities crucial for safe and efficient maritime activities. Politically, it follows, ICE represents a strategic move to counterbalance Russia's dominance in Arctic maritime affairs. By revitalising shipbuilding within NATO allies and activating Western-dominated sea routes, the pact aims to reduce reliance on Russia's Northern Sea Route. This shift not only enhances surveillance and navigation standards but also strengthens Western influence in the region.

- However, the Pact faces potential obstacles, particularly within the US, where shipbuilding interests often demand protectionism and therefore there is a possibility that key players in the US might seek to frustrate attempts at closer cooperation between American and Finnish/Canadian entities if such collaborations are deemed to lead to job loss. Despite these challenges, it represents a significant step towards closing the icebreaker gap between Russia and the West, aiming to strengthen shipbuilding and maritime industrial capacity through closer cooperation on polar icebreakers. In this way, the Pact serves both geopolitical and pragmatic purposes. It projects Western power and influence into the strategically vital Arctic region while addressing concerns about losing technical expertise and capability. As Arctic accessibility improves, put differently, the region is poised to become a crucial arena for international trade and resource development, with significant implications for global geopolitics

and economics. As such, and notwithstanding potential obstacles, the ICE Pact represents a forward-looking strategy to enhance Arctic capabilities and cooperation among key NATO allies.

- The ICE Pact and the anticipated increase in Arctic maritime traffic herald a new era of commercial and political dynamics in the region. The strategic deployment of icebreakers not only enhances national security and regional influence but also unlocks substantial opportunities for private sector growth and innovation. As Arctic accessibility continues to improve, the region is poised to become a pivotal arena for international trade and resource development, with significant implications for global geopolitics and economics. Despite environmental concerns and operational challenges, the growing interest in the Arctic's energy prospects underscores its strategic importance in the global energy landscape. For the private sector, the increasing accessibility of the Arctic presents numerous opportunities in shipping, cybersecurity, and the resource sector. Companies can play a pivotal role in advancing green and smart shipping solutions, leveraging technological innovations to ensure safe and sustainable navigation in the Arctic.