Intensifying Geopolitical Competition in the Arctic

The Arctic was once locked in thick ice—a harsh but alluring paradise for explorers to conquer. Yet with advances in science and technology, human activity has expanded, and the Arctic has now come under the influence of international affairs. Today, it is a 21st-century frontier where national interests collide and geopolitical realities are revealed with stark clarity. Behind this transformation lies global warming. Experts estimate that the Arctic Ocean is warming at four times the global average. As a result, the region's strategic value is increasing in terms of shipping routes, resources, and accessibility.

The Arctic situation is undergoing dramatic changes—both in security and in business opportunities. In Canada, where the author is stationed, Russian military aircraft frequently intrude into its airspace, while Russian and Chinese activity in the Arctic Ocean is intensifying, deepening concerns. Canada's new national defense strategy, announced in 2024, was titled "Our North, Strong and Free." The title speaks volumes. One also recalls former President Trump's repeated remarks regarding Greenland and Vice President Vance's visit there—clear evidence of the urgency and inevitability of responding to these dramatic changes in the Arctic. This article reviews the development of the Arctic since the Cold War, organizes recent international trends, and presents the overall picture. It will also touch upon Japan's Arctic policy.

From a "Sea of Cooperation" after the Cold War to a Geopolitical Space of Competition

The Arctic Circle, defined as the area north of latitude 66°33′, covers some 20 million square kilometers, of which about 8 million are land. Eight countries have territory within this region: Russia (53 percent), Canada (25 percent), Greenland (15 percent, as part of Denmark), followed by Norway, the United States, Iceland, Sweden, and Finland.

During the Cold War, the Arctic was the front line of U.S.—Soviet confrontation. A glance at the globe makes it clear: the Arctic provides the shortest route between Moscow and

Washington, and thus was regarded as a potential pathway for intercontinental ballistic missiles (ICBMs) and strategic bombers. Beneath its ice, U.S. and Soviet nuclear-powered submarines with second-strike capability carried out patrols. At that time, the effects of global warming had not yet become apparent, and general access to the polar regions was severely limited. Nevertheless, the two superpowers deployed advanced technologies and constructed radar and other military facilities in the Arctic. It was a core theater of the strategy of Mutual Assured Destruction (MAD).

With the end of the Cold War, however, the Arctic was transformed from a "front line of confrontation" into a "region of cooperation and coordination." In June 1991, the eight Arctic states, including the U.S. and Russia, adopted the *Arctic Environmental Protection Strategy (AEPS)*, establishing five working groups to cooperate on environmental issues across borders. The AEPS created shared datasets and scientific knowledge, fostering confidence-building among participants. In September 1996, the Ottawa Declaration established the *Arctic Council (AC)*, inheriting the AEPS framework. While the AC does not address security issues, its agenda expanded beyond the environment to include wideranging policy consultations. Importantly, organizations representing Arctic Indigenous peoples were granted participation.

Cooperation and coordination deepened further. In 2010, Russia and Norway reached an agreement on the long-disputed maritime boundary in the Barents Sea. In 2013, six states—including Japan, China, South Korea, India, Italy, and Singapore—were granted observer status in the AC, further strengthening cooperation.

Discussions extended to the treatment of the Arctic Ocean's high seas under the United Nations Convention on the Law of the Sea (UNCLOS), fisheries and freedom of navigation, studies of Arctic sea routes and navigation safety, research on ocean acidification linked to climate change, and monitoring of the Arctic environment, including marine plastic pollution. The Arctic became a model of international cooperation.

However, this period of cooperation did not last. In March 2014, Russia used military force to "annex" Crimea. In response, Japan and other Western nations imposed sanctions on Russia. While selective cooperation continued within the AC, such as in environmental and disaster-response areas, the momentum for cooperation declined. Then, on February 24, 2022, Russia invaded Ukraine. At that time, Russia was chair of the Arctic Council. On March 3, the other seven AC members issued a joint statement: "Arctic cooperation is important, but under current circumstances legitimacy cannot be maintained. We will

suspend all official activities under Russia's chairmanship." In May 2023, Norway assumed the chair instead of Russia, and the AC7 began seeking ways to cooperate without Russia. Yet, as the AC operates on a consensus basis, its functions effectively broke down. The Arctic once again became a space of geopolitical competition.

NATO and Western nations enhancing their security commitments

The security situation in the Arctic is becoming increasingly severe, linked to resource development and Arctic sea route issues. Russia is strengthening its Northern Fleet, deploying nuclear submarines and icebreakers, while bolstering air defense systems and missile bases. China, meanwhile, proclaims itself a "near-Arctic state," advancing its "Polar Silk Road" concept, building dual-use scientific facilities, and reportedly collecting seabed and magnetic data. Western nations are closely watching Sino-Russian cooperation in the Arctic.

A stark reminder of vulnerabilities came in 2022, when undersea cables were severed near Norway's Svalbard Islands. Located at latitude 78°N, this demilitarized territory hosts the world's largest and most important ground station for data relay from polar-orbiting satellites. Massive data flows through fiber-optic cables laid 2,700 meters deep across the Arctic seabed, connecting Svalbard to mainland Norway. One cable was cut and the other damaged. Though restored within a month, the incident revealed the fragility of infrastructure vital to the internet, satellite communications, and the transmission of military and scientific data. Whether it was caused by natural forces, accident, or deliberate sabotage remains unclear, heightening fears of so-called hybrid threats.

Against this backdrop, NATO's importance is growing. At the Arctic Council meeting in October 2024, Admiral Rob Bauer, NATO Military Committee Chair, expressed concern over Sino-Russian cooperation in the Arctic. Meanwhile, faced with Russia's invasion of Ukraine, Finland (April 2023) and Sweden (March 2024) abandoned long-standing traditions of neutrality and joined NATO. Of the eight Arctic Council states, seven (all but Russia) are now NATO members. NATO's geographic presence has expanded across the Barents Sea and into the Arctic Ocean.

In July 2024, the U.S. Department of Defense released its *Arctic Strategy 2024*, building on the 2022 *National Strategy for the Arctic Region*. It outlined concrete measures to strengthen U.S. integrated deterrence and manage risks in the Arctic:

- 1. **Enhancing domain awareness and Arctic readiness** including improving intelligence capabilities, developing communications and data infrastructure, and preparing for cold-weather operations.
- 2. Strengthening engagement with allies, partners, and key stakeholders not only the AC7 but also Indigenous communities and subnational governments.
- 3. **Expanding Arctic presence** through joint exercises, deployment planning, and maintaining U.S. capability to access the Arctic anytime, anywhere.

Relatedly, the U.S., Canada, and Finland signed the *Icebreaker Collaboration Effort* (*ICE*) *Pact* in July 2024. This agreement covers security, freedom of navigation, search and rescue, scientific research, and surveillance in the Arctic, as well as the sharing of icebreaking technology and training. Crucially, it promotes industrial cooperation in the construction and maintenance of icebreakers. Finnish company Aker Arctic boasts world-leading icebreaker construction technology, while Canada's Davie Shipyard, founded in 1825, is among the world's most experienced. If the ICE Pact functions effectively, it could significantly complement the weakened U.S. shipbuilding sector.

Also noteworthy is President Trump's proposed "Golden Dome" concept, aiming for a comprehensive defense of North American airspace. Despite tensions over trade tariffs, Canada has shown willingness to explore deeper cooperation with the U.S. on Arctic strategy.

Economic Potential, Environmental Protection, and Indigenous Participation

Amid growing geopolitical tensions, the Arctic's economy offers two major opportunities:

1. Arctic Shipping Routes.

As Arctic ice continues to melt, year-round navigation may become possible, not just in summer. This would bring revolutionary change to shipping, reducing transit time between Europe/North America's east coast and Asia by up to 40 percent. Hence, the Northern Sea Route is sometimes called the "Suez Canal of the 21st century."

Currently, Russia's Northern Sea Route is more developed, with LNG shipments already underway. However, geopolitical risks and legal issues under international law remain. Consequently, attention is turning to Canada's Northwest Passage, though its complex geography and unresolved legal debates between Canada and the U.S. (whether it is internal waters or an international strait) limit its current use. The future will depend on further ice melt, technological progress, and geopolitical developments.

2. Resource Development.

According to a 2008 U.S. Geological Survey (USGS) assessment, the Arctic holds 13 percent of the world's undiscovered oil and 30 percent of its undiscovered natural gas, as well as abundant mineral resources including nickel, copper, uranium, rare earths, and diamonds. Promising areas include Russia's Yamal Peninsula, Canada's Baffin Island and Arctic Archipelago, Alaska's north, Norway's Svalbard, and Greenland.

Yet Arctic economic development is inseparable from environmental protection and Indigenous rights. Most resource-rich areas overlap with Indigenous lands. Increased ship traffic raises risks of black carbon emissions and spills. Balancing economic rationality with social responsibility is key. Approaches differ by country. Russia integrates Northern Sea Route operations with gas development on the Yamal Peninsula while reinforcing military presence. The U.S. has swung between Biden's environmental emphasis and Trump's push for resource development in Alaska. In Canada, the newly inaugurated Carney government is promoting critical mineral development while seeking Indigenous understanding and support.

Climate change is most visible in the polar regions. Since satellite observations began in 1979, Arctic summer sea ice extent has shrunk by 40 percent, and by volume, more than 70 percent has melted. Some predict nearly ice-free summers in the Arctic Ocean by the 2030s. Melting permafrost releases methane and CO₂, accelerating warming, while also causing ground subsidence that damages roads, pipelines, and buildings. Warming also shifts species northward, disrupting Arctic food chains and biodiversity.

Indigenous peoples are among the most affected. Hunting, fishing, and reindeer herding have become difficult, while ice-based mobility is hindered, altering traditional ways of life. Yet there are also cases where Indigenous communities, though impacted by development, share in its benefits through participation. In Canada, the three northern

territories—Yukon, Northwest Territories, and Nunavut—are entirely within the Arctic Circle and face severe impacts from climate change. Federal efforts toward reconciliation with Indigenous peoples, aimed at overcoming past assimilation policies and discrimination, are essential for both justice and smoother coordination in resource development.

In response to the rapid progress of global warming in the polar regions, identifying the actual conditions and clarifying the mechanisms of warming are priority issues. In this context, attention has been drawn to the Canadian High Arctic Research Station in Cambridge Bay, Nunavut, located at latitude 69°N. As one of the world's most advanced observation facilities, it conducts research in collaboration with Japan's National Institute of Polar Research, the U.S. National Science Foundation, as well as the European Union (EU) and Nordic countries. Ongoing studies include permafrost carbon emissions, ocean modeling, and meteorological observations.

Toward a Comprehensive Japanese Arctic Strategy

Traditionally, Japan's Arctic policy has emphasized freedom of navigation, respect for international law, Arctic observation and research, global cooperation, and contributions to rulemaking. However, as geopolitical tensions rise, the *National Security Strategy* revised in 2022 recognized for the first time the need to address Arctic security issues. In April 2023, the Cabinet adopted the *Fourth Basic Plan on Ocean Policy*, calling for crossgovernmental measures including security. Based on this, Japan has been formulating policies at international conferences, promoting public-private cooperation, and expanding support for scientific research.

Recent developments include the participation of Japan's Self-Defense Forces as observers in Canada-led *Operation Nanook*, with U.S. forces also taking part—Japan's first involvement in multilateral exercises in the Arctic. Furthermore, the launch of *Mirai II*, a world-class Arctic research vessel with full-scale icebreaking and ice-resistant capabilities, is expected to make major contributions in future Arctic research.

Japan must address security, economic, environmental, and international cooperation challenges comprehensively. Enhancing Japan's presence in the Arctic is of utmost importance. The time has come for Japan to put forward a truly comprehensive Arctic strategy.