Pfc. Gatwech Both of Company B, 1st Battalion, 297th Infantry Regiment, Alaska National Guard, provides suppressive fire with his team 2 March 2018 during Arctic Eagle 2018 at the Donnelly Training Area outside of Fort Greely, Alaska. The Alaska National Guard has successfully operated in the Arctic and defended Alaska for more than seventy-six years. (Photo by Spc. Michael Risinger, U.S. Army National Guard)

Great Power Collaboration?

A Possible Model for Arctic Governance

Maj. Dai Jing, Singapore Armed Forces
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Previously thought of as a frozen landscape of interest only to scientists, the Arctic has increasingly garnered the attention of the international community. Climate change has seen an average rise in global temperatures of 0.9 degrees Celsius in the past 140 years. In the Arctic, however, temperatures have risen twice that of the global average due to a reinforcing feedback loop called "Arctic

amplification," where more dark-colored seawater absorbs heat, and in turn, melts more ice.[1] In the past fifty years, Arctic sea ice has shrunk to about half its original size.[2] While scientists do not yet agree on the exact timeline of the melt, it is estimated that within fifteen to thirty years, parts of the Arctic will be ice-free for significant durations annually.[3]

For the littoral Arctic states—Canada, Finland, Iceland, the Kingdom of Denmark, Norway, Russia, Sweden, and the United States—this melt brings the potential of accessing previously inaccessible resources. It is estimated that a fifth of the world's hydrocarbons is locked under the Arctic ice.[4] Beyond hydrocarbons, a melted Arctic would also bring additional sources of fish; minerals; metals; and hydro, wind, geothermal, tidal, and solar power.[5] On the other hand, the reduction of the natural barrier formed by the ice is a security threat. The Arctic states, therefore, all have distinct interests in maintaining trade routes, resource development, sea ice claims, and regional stability (see figure 1, page 82).[6]

Other non-Arctic states—China, France, Germany, India, Italy, Japan, the Netherlands, Poland, Singapore, South Korea, Spain, Switzerland, and the United Kingdom—have all declared interest in the region and joined the Arctic Council as permanent observers.[7] For them, the most important development is arguably the potential viability of new waterways through the Arctic as the ice melts. If fully opened, the Transpolar Sea Route, Northern Sea Route, and the Northwest Passage can significantly cut shipping times from Europe to Asia.[8] Furthermore, without the canal limitations of traditional shipping routes, bigger cargo ships can provide greater economies of scale each trip.[9] Underwater, the access to more ocean floor means more fiber-optic cables can be laid, making telecommunications more efficient and reliable.[10] As many of these non-Arctic states are beneficiaries of the traditional trade routes, the potential disruption in trade caused by the melting Arctic is possibly an existential threat. Beyond trade routes, many of these states are also highly keen on gaining access to the potential resources in the Arctic.[11]

Against this backdrop, multiple Arctic and non-Arctic states are making moves to gain an edge, or even hegemony, before the ice fully melts. Thus, the question of whether the regional governance should be restricted locally or expanded globally is an important one. To this end, the authors argue that as the environmental, economic, and security impacts of the Arctic are global in nature, its governance should be correspondingly global. Hence, as both an Arctic state and the largest economy in the world, the United States should take the lead in fostering international cooperation in the Arctic.

Collaboration, Competition, and Conflict

At a casual glance, it appears that the trend in the Arctic is one of cooperation rather than conflict, leading to claims that the tensions in the South China Sea can be solved by learning how the Arctic states resolve and manage their conflicts.[12] For example, since its formation in 1996 as part of the Ottawa Declaration, the Arctic Council has established three legally binding agreements on search and rescue, oil pollution preparedness, and scientific research.[13] In addition, countries in the Arctic region and the European Union (EU) have collectively agreed to not increase fishing activities in Arctic waters for at least sixteen years so the scientific community can study the long-term ecological impacts of melting sea ice.[14] Thus far, conflicting territorial disputes in the region are largely arbitrated by United Nations Convention on the Law of the Sea (UNCLOS) submissions or bilateral agreements.[15]

Look below the surface, however, and one can discover a variety of diplomatic, informational, economic, and military posturing by countries with Arctic interests. The official position of most of these countries is primarily

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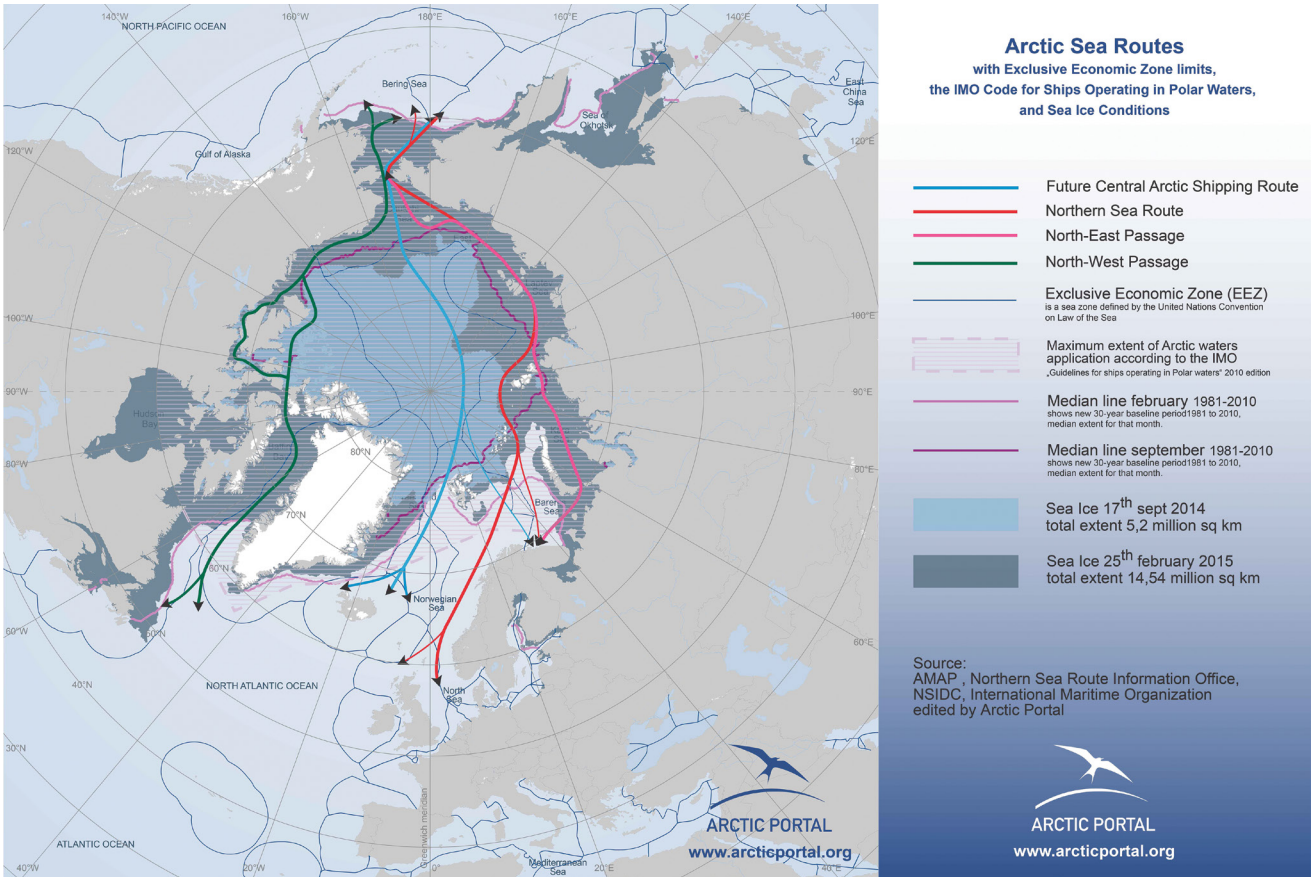


(Figure courtesy of Arctic Portal. Sources: Arctic Monitoring & Assessment Programme, Northern Sea Route Information Office, National Snow and Ice Data Center, and International Maritime Organization)

Figure 1. Arctic Shipping Routes and Economic Exclusion Zones

that of adhering to an international rules-based order and cooperation between states. However, a number of competing claims have not been resolved, and countries are defending their claims with military buildup.

Of the Arctic states, Russia appears to be making the most aggressive moves. With $300 billion in Arctic infrastructure investments, Russia is sending a clear signal about its hegemonic Arctic ambitions.[16] Russian President Vladimir Putin openly declared the Northern Sea Route as an international shipping artery rivaling traditional routes and claimed parts of it as Russia's internal waters, meaning the country can decide who can transit through it, effectively monopolizing the waterway.[17]

Beyond rhetoric, Russia looks prepared to defend its claims militarily. Alarm bells first rang in 2007, when a Russian submarine expedition planted a titanium Russian flag under the North Pole.[18] Since then, it has built up an extensive collection of forty icebreakers, naval ships, land-based military deployments and military infrastructure in the Far North.[19] Antiship missile sites and ports have been established along the northern sea border of Russia, including sites on islands that pose a threat to any vessels that have an interest in the Arctic. Although not directly related to the Arctic, withdrawal from the Intermediate-Range Nuclear Forces Treaty by both Russia and the United States is a cause for concern as it is a sign of hostility.[20] In its defense, the Arctic ice was traditionally seen as a natural barrier between Russia and NATO states.[21] With that natural barrier melting, Russia feels the pressure to bolster its northern defenses.

Uncharacteristically, Canada makes similar claims that parts of the Northwest Passage are its internal waters. Consequently, it protested the 1969 voyage of the USS *Manhattan* as an intrusion by the United States into Canadian sovereignty. To defend its claims, Canada plans to upgrade its Arctic military capabilities with icebreaker ships, offshore patrol ships, snowmobiles, surveillance equipment, and

satellite communications.[22] As a show of deterrence, the Canadian Armed Forces have also conducted annual sovereignty defense exercises in the Arctic under Operation Nunalivit since 2007.[23] In another display of sovereignty, Canada prevented the sale of Canadian radar technology to the United States on grounds of national security in 2008.[24] That said, Canada is taking care not to appear too aggressive with permanent Arctic deployments.[25]

The newest big player in the arena is China. In the 2018 Arctic Policy, China declared itself as a "near-Arctic State" and expressed the desire to build a "Polar Silk Road" through the Arctic.[26] Unlike its hegemonic posturing in the South China Sea, China's Arctic rhetoric has been about trade freedom and respect for UNCLOS.[27] Overtly, China's moves in the Arctic are largely an exercise of soft power via research, investments, and infrastructure development with multiple Arctic states.[28] It currently spends $60 million annually on research in the region.[29] Economically, China engaged with many Arctic states to fund projects in a bid for influence in the region. In 2013, it established a free trade agreement with Iceland, the first with a European country. In 2014, it supplied $12 billion to the Yamal LNG project—a Russian liquefied natural gas (LNG) company—to complete a project when funding fell as a result of U.S. sanctions on Russia. China also engaged with the United States and signed a deal to provide funding for the Alaska LNG project in 2017. Most recently, in late 2018, China is in talks with Greenland on infrastructure projects. However, some government officials fear it may come at a price of Greenland's control over its raw materials.[30] Despite the focus on economy, military buildup is still relevant here, as China recently launched its first domestically produced icebreaker, the *Snow Dragon II*.[31] Furthermore, it is making plans for naval and submarine operations in the Arctic.[32]

Apart from the countries mentioned above, other non-Arctic littoral entities are also putting more focus on the Arctic. The EU is looking to build icebreakers and announced its own Arctic policy. NATO has likewise studied into its future involvements in the Arctic. Asian countries like South Korea and Singapore have also built large icebreakers to access the Arctic shipping routes.[33] All these actions suggest that the attention on the Arctic is global in nature and countries are willing to invest significant capital to get ahead in the Arctic game.

Despite these developments, some scholars believe that hostile competition in the Arctic is a remote scenario due to its current harsh conditions, poor infrastructure, and the relatively peaceful stability of the Arctic states.[34] However, this view may be too temporally and geographically myopic. First, unlike the South China Sea, the resources promised by the Arctic are not ready for exploitation yet. Thus, while there is little benefit currently for overt conflict, many countries are preparing the theater using diplomatic, informational, and economic campaigns while simultaneously building their militaries. Second, China's military developments are running in tandem with its demonstrated ambitions under its global Belt and Road Initiative.[35] Thus, once conditions are ripe, it may well resort to the hard power tactics it is pursuing in the South China Sea to achieve its economic aims.[36] Therefore, to avoid escalation into another Cold War or armed conflict, the priority in the Arctic must be to establish an inclusive governance model to ensure all stakeholders' interests are addressed, wherever their geographical locations may be.

An Ideal Arctic Governance Model

Despite the heavy global influence of the region, the Arctic Council only allows the eight Arctic states to be full members while non-Arctic states can only become permanent observers. With no binding legal powers and mandate to discuss military topics, the Arctic Council, in its current form, is a weak institution to guard against aggressive geopolitical posturing in the Arctic.[37] A stronger governance model based upon sound principles needs to be established.

With such potential for economic growth, it is easy to forget that the Arctic melt poses severe environmental impacts that will far outweigh the economic gains discussed above. First, temperature increases in the Arctic will in turn increase global temperatures and could result in rising sea levels.[38] Irresponsible development and ice breaking in the region may very well add to these temperature increases. Second, native food security is reduced due to the loss of whaling and sealing from the warmer waters, leading to potential relocations of whole communities in the Arctic.[39] To minimize these negative impacts, the primary principle of Arctic governance must be environmental sustainability and climate change prevention.

Given current predictions, however, the Arctic melt is probably more a matter of when than if.[40] As such, development governance and territorial conflicts need to be addressed early. On economy and resources, the most globally equitable position is to treat the Arctic as a global common that is free and open for international trade and resource exploration while maintaining way-of-life safeguards for the four-million-person indigenous Arctic population.[41] This position is aligned with that of the United States, the EU, and most non-Arctic states, suggesting a strong potential for enforcement collaboration.[42] Thus, freedom of trade anchored by an international rules-based order must be a key principle in Arctic governance.

> Given the global impacts of the Arctic, governance of the Arctic's developments and enforcement of the safeguards should be done by a truly international body.

Given the global impacts of the Arctic, governance of the Arctic's developments and enforcement of the safeguards should be done by a truly international body. Membership of the Arctic Council should be expanded to all countries with Arctic interests. In addition, all aspects of Arctic development, including military ones, should be up for debate in the council. A possible model to follow is that of the Antarctic Treaty System that governs resource extraction and scientific exploration in Antarctica. Under the legally binding treaty, all signatories suspended territorial claims and military activities. Instead, they collaborated to jointly facilitate the stipulations of the treaty. The Antarctic Treaty Consultative Meetings are open to all countries as long as they conduct "substantial research activity" as proof of commitment to the region.[43]

Of course, there are significant differences between the Arctic and Antarctica. First, there is little great power competition between the littoral Antarctic states. Second, because it is an actual landmass, the melt in Antarctica will not change trade routes but will instead have a significant impact on global sea levels. As such, the economic and strategic gains in the Antarctic are seemingly less significant, making it easier for countries to focus on environmental factors and be more altruistic in their approaches to the region.[44] Nevertheless, with strong international leadership and advocacy for collaboration rather than competition, a similar system could be achieved in the Arctic.

Implications for U.S. Policy

While it appears to the general American public that Arctic developments only impact the remote Arctic state of Alaska, these developments, in fact, have serious implications on the United States' national security. First, if competition in the Arctic leads to militarization, the consequences of conflict will affect the overall U.S. military and economy. Thus, the U.S. Arctic Region Policy states that "U.S. national security interests [in the Arctic] include such matters as missile defense and early warning; deployment of sea and air systems for strategic sealift, strategic deterrence, maritime presence, and maritime security operations; and ensuring freedom of navigation and overflight."[45] Second, beyond militarization, the U.S. Department of Energy states that the definition of national security with regards to the Arctic must be broad in nature and include security in freedom to conduct economic, resource extraction, and scientific research activities as well.[46] As an Arctic state and an international leader, the United States must take steps to ensure its national security interests in the Arctic are protected.

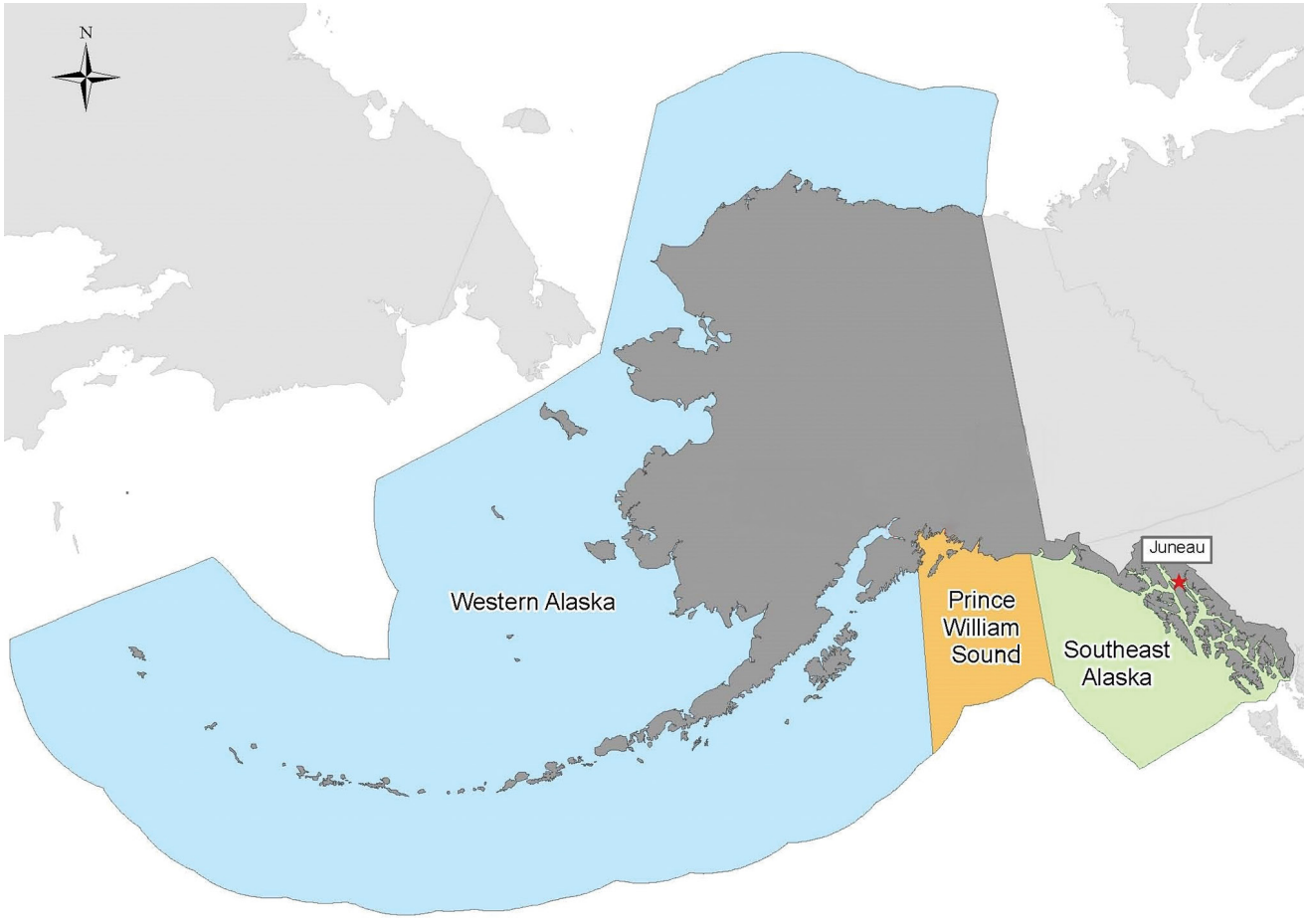
In line with the Department of Defense's desired end state for the Arctic as "a secure and stable region where U.S. national interests are safeguarded, the U.S. homeland is defended, and nations work cooperatively to address challenges," the United States' best strategy in the Arctic is to be a leading voice in advocating for international collaboration in establishing the global governance model described in the preceding section.[47] To do so, the United States will need to utilize its instruments of national power, with particular emphasis on the twin pillars of diplomacy and military deterrence.

A Russian soldier stands guard by a Pansyr-S1 air defense system 3 April 2019 on Kotelny Island, part of the New Siberian Islands archipelago, located between the Laptev Sea and the East Siberian Sea in Russia. Russia has made reaffirming its military presence in the Arctic a top priority amid intensifying international rivalry over the region that is believed to hold up to one-quarter of the planet's undiscovered oil and gas. (Photo by Vladimir Isachenkov, Associated Press)

With just one heavy-class icebreaker and minimal troops in Alaska, the United States' deterrent is not credible on its own.[48] Diplomatically, the United States needs to work out its conflicts with Canada first and then capitalize on its special relationship with the country to convince its leadership to relinquish its internal waters claim on the Northwest Passage and respect the provisions of UNCLOS.[49] Thereafter, the United States should champion international collaboration in lobbying for a more inclusive governance body for Arctic development. This push for global Arctic governance should also be underpinned by multilateral military cooperation with interested nations. In a key demonstration of good faith to rally the nations, the United States should ratify UNCLOS. Given all other Arctic states are abiding by UNCLOS and the United States abides by it in action already, the ratification should be little more than a formality.[50] Establishing multilateral cooperation will also alleviate perceptions of hegemonic Arctic ambitions by the United States.

The twin pillars of deterrence and diplomacy only work if the deterrence is credible. This is especially so if China and Russia collaborate not just economically but also militarily. It is neither cost effective nor timely for the United States to attempt to catch up to Russia's, and potentially China's, over forty icebreakers. However, if it can pair its own icebreaker build up with the twenty-nine icebreakers and other naval assets of the NATO countries and friendly non-Arctic states like Japan and South Korea, it can send a dual message of deterrence and international unity against any country trying to assert hegemony over the Arctic.[51]

Beyond deterrence, there are plenty of other benefits of military collaboration in the Arctic. First,



(Source: U.S. Coast Guard, https://www.pacificarea.uscg.mil/Our-Organization/District-17/)

Figure 2. U.S. Coast Guard District 17 Area of Operations

partner nations can gain much from jointly developing the poor communications infrastructure and navigational data in the region so all vessels can pass through safely.[52] Due to the harsh conditions, cost sharing to develop Arctic-hardy unmanned systems will be of special value. Second, the possibility of oil spills as more oil tankers traverse the Arctic will undoubtedly increase. In the difficult conditions of the Arctic, clean-up operations for spills will likely be even more complex than those of the Exxon Valdez spill in 1989. Thus, joint emergency response plans for this scenario need to be well developed and constantly rehearsed. Finally, search-and-rescue operations in the region will also be fraught with difficulty and would provide a good platform for all nations to collaborate militarily.[53]

For the U.S. military, a number of changes need to be made. Currently, command of operations in the Arctic is split amongst the U.S. North Command, the U.S. European Command, and the U.S. Indo-Pacific Command. This could prove confusing should a large-scale operation be required. Hence, contingency plans for an ad hoc single command structure for Arctic operations must be in place. In terms of deployments, it is paramount that the United States bolsters Coast Guard and Navy presence in the Arctic, namely in Alaska and around the Bering Strait. Maintaining a continued presence of U.S. Coast Guard District 17 assets would support any diplomatic solution with Canada without escalation to conflict (see figure 2). With these changes and the international collaboration mentioned above, the United States will be in a

good position to ensure developments in the Arctic are beneficial to the global community.

Conclusion

The potential economic gains from the melt are tantalizing. If fully realized, global trade currents could shift, threatening countries half a world away while invigorating regions previously frozen out of the international economic community. Perhaps even more than the South China Sea, impacts of developments in the Arctic are global in nature. Thus, the key priority must be in keeping the peace and stability of the region by promoting international collaboration and reducing counterproductive competition. While the current geopolitical situation in the region seems to be generally collaborative, most Arctic states and other interested non-Arctic states are making diplomatic, economic, and military moves in preparation for future competition as the melt progresses.

As an Arctic state and the currently recognized global leader, the United States is in a unique position to shift the current Arctic paradigm. With effective diplomacy and military collaboration, it can be the leading voice for establishing a more inclusive global governance model for the Arctic that will overcome the current weak mandate of the Arctic Council on military issues. The governance model should be based on the three key principles of free and open trade, a rules-based order, and environmental conservation.

With current climate observations, the Arctic melt shows no signs of stopping, even if its rate of progress may not always be linear. Hence, the United States needs to make the above preparations for the melt early. Establishing multilateral cooperation will alleviate perceptions that the United States is trying to assert hegemony over the Arctic. With interests of more groups considered, Arctic development is likely to be more sustainable and equitable, leading to the creation of a true global common with benefits for all. ■

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