Climate Change Has Awakened the Polar Dragon

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Abstract

While the Arctic has long been a strategic domain, with Cold War superpowers competing across the frozen pole, climate change’s thawing of the icecaps is inviting new activity and interest in the High North. For over a decade now, China has recognized the impacts of climate change as a national security challenge—and opportunity. Nowhere is this more apparent than in its evolving approach to the Arctic. Put another way, China perceives the increasingly accessible Arctic to be a “near-China region” over which it plans to exert influence, a dynamic that only accelerates as climate change makes the Arctic more accessible and less remote. For the United States, these developments take on even more urgency when viewed in the context of the broader US competition with China, as well as the deepening relationship between China and Russia.

Introduction

While the Arctic has long been a strategic domain, with Cold War superpowers competing across the frozen pole, climate change’s thawing of the icecaps is inviting new activity and interest in the High North. In particular, China is prioritizing this increasingly important geopolitical region, significantly complicating the great power calculations and dynamics with which the United States must contend.

For over a decade now, China has recognized the impacts of climate change as a national security challenge—and opportunity.¹ Nowhere is this more apparent than in its evolving approach to the Arctic. In 2013, China released its first Na-

tional Climate Adaptation Strategy, and the following year its holistic national security strategy identified “environmental security” and “resource security” as two of eleven key components. A few years later, in 2018, Beijing published a white paper on the Arctic, identifying China as a “near Arctic power,” noting that due to climate change, “The Arctic situation now goes beyond its original inter-Arctic States or regional nature, having a vital bearing on the interests of States outside the region and the interests of the international community as a whole, as well as on the survival, the development, and the shared future for mankind.”² Put another way, China perceives the Arctic to be a “near-China region” over which it plans to exert influence, a dynamic that only accelerates as climate change makes the Arctic more accessible.

For the United States, these developments take on even more urgency when viewed through a more holistic lens of geopolitical competition. First, China's Arctic activity must be examined in the context of the broader US competition with China. Second, the relationship between China and Russia—the more traditional Arctic security threat for the United States—must be examined as well to understand the full scope of the implications for the United States.

The Nexus of Climate Change and Resource Access in the Arctic

While the United States and others have viewed such Chinese claims with skepticism, the white paper is not wrong in noting that what happens in the Arctic does not stay in the Arctic. Even if global temperatures rise by less than two degrees Celsius on average above pre-industrial levels, the Arctic could experience a sea ice–free summer at least once a decade. Decreased sea ice allows for additional human activity in the Arctic; this in turn further damages the Arctic ecosystem beyond the impacts of a warming. Decreasing sea ice and permafrost—as a result of which more fresh water enters the Arctic Ocean—can change weather and climate conditions in other parts of the globe. This is all happening faster than scientists previously thought. In the fall of 2022, a new study revealed that the Arctic has warmed four times faster than the rest of the world over the past 40 years, a significant change from the previous assessment that the region was warming two times as fast. The Arctic is on average three degrees Celsius warmer than it was in 1980.³ These changes are fueling China’s expansive ambitions in the Arctic. In January 2018, this ambition was formalized in the previously mentioned Arctic

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white paper, China’s first public Arctic policy, wherein China laid out its vision to take advantage of melting sea ice to develop a “Polar Silk Road,” eventually connecting North America, East Asia and Western Europe. This will shorten travel times compared to traditional routes through the Straits of Malacca and Suez Canal, offering China a new strategic advantage in terms of global trade and freedom of navigation. In 2021, the Chinese government’s 14th Five-Year Plan reiterated the importance of developing such transit routes in the Arctic. Also in 2021, a civilian ice-breaking cargo vessel owned by a Russian firm successfully transited from China to Russia in February, the first time such a trip was made in the winter months. Given that the Arctic Sea is averaging 12.6 percent of sea loss per decade such trips will likely become more frequent in decades to come, and prior to the Russian invasion of Ukraine, Moscow had sped up its investment in port facilities along its Arctic coastline. China is attuned to these developments and keen to make investments of its own in the equipment needed for operations in the High North. In 2021, China released a policy note outlining plans to develop a heavy ice breaker and a heavy lift vehicle for operations in the region.

In addition to new transport routes, China is attuned to the access climate change will unlock in the Arctic for fossil fuels, critical minerals, and fish stocks—especially as climate impacts elsewhere in the world affect China’s energy and food security. The Arctic has an estimated 90 billion barrels of oil and 1,669 trillion cubic feet of natural gas, amounting to 22 percent of the world’s oil and natural gas reserves. Critical minerals needed for energy transition, such as lithium and nickel, are also in abundance in the region, and experts estimate there are significant critical minerals in the deep seabed of the Arctic Ocean as well.

While deep seabed mining is still theoretical at this point in the Arctic, China is well-positioned to take the lead in any future efforts given its investments in min-

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4 Sherri Goodman and Elisabeth Freese, “China’s Ready to Cash In on a Melting Arctic,” Foreign Policy 1 May 2018.
9 Mark Rowe, “The World is Gearing Up to Mine the Arctic,” Geographical 12 August 2022; https://geographical.co.uk/.
ing technology and political influence over the International Seabed Authority (ISA), the UN governing body developing rules of the road for such exploration. Of the 30 contracts the ISA has approved for deep seabed mining globally, China has secured five—the most of any country.\textsuperscript{11}

Arctic fish stocks are another key resource that are becoming more accessible and more abundant due to the changing climate. A study from the University of British Columbia found that in a high warming scenario, fish migration due to warming waters could increase annual catch amounts by the end of the century significantly—providing Arctic fisheries 37 times more fish than today.\textsuperscript{12} Though China has signed the Central Arctic Ocean Fisheries Agreement, which bans fishing in the region for 16 years beginning in 2021, the country has a worrisome track record on illegal, unregulated and unreported (IUU) fishing practices. China is the world’s largest consumer of fish and operates the world’s largest commercial fishing fleet.\textsuperscript{13} At the same time, food security is an increasing concern for Beijing. It has 20 percent of the world’s population yet only 12 percent of the world’s arable land—much of which is threatened by climate change.\textsuperscript{14} In the coming decades it is likely Beijing will act more aggressively to access fish stocks in the Arctic as it has elsewhere in the world.

\textbf{An Opening for China?}

While Russia is clearly the dominant player in the region, China’s dominating impact on US strategic views has turned a bipolar dynamic between Russia and NATO into a more complex, multipolar one, even if China’s current Arctic presence is more limited. Additionally, the Russian invasion of Ukraine and subsequent suspension of the Arctic Council have upended the traditional mechanisms for maintaining stability and peaceful cooperation in the region. This provides China an opportunity to mold the future of Arctic governance through closer ties to Russia. The longer the Arctic Council activities are suspended, the more likely Russia will look for partners in the region - even if they are only “near-Arctic”. In-

\textsuperscript{14}Sikorsky, “China’s Climate Security Vulnerabilities.”
increased western sanctions on Russia have made China a more attractive investment partner for Moscow’s Arctic ambitions as well.15

China also faces geopolitical and environmental challenges in the Arctic. A closer relationship between Beijing and Moscow means increased wariness from other Arctic countries, as exemplified by the tense exchange at the Arctic Circle Assembly last year. At the meeting, a senior NATO official clashed with a Chinese diplomat over China’s refusal to condemn the Russian invasion of Ukraine and its supposed disregard of the rules-based international order.16 Also, the Arctic remains a challenging operating environment for even the best equipped ships—as Arctic activity increases, particularly by ill-prepared commercial vessels, the risk of serious accidents increases. The Council on Strategic Risks, the Polar Institute and Sandia National Laboratory have modeled collisions of nuclear and gas equipment in the Arctic, for example, finding that such incidents would have severe environmental and economic implications and would be challenging for governments to respond to.17

Implications for the United States

The United States views China as its pacing threat, perceiving Beijing’s expanding global influence with significant concern. Of particular note, China’s efforts to increase its influence in the Arctic are specifically, though tactfully, called out in the new US National Strategy for the Arctic Region.18 The US Navy’s Arctic strategy, A Blue Arctic, is more blunt. It states that “China’s growing economic, scientific, and military reach, along with its demonstrated intent to gain access and influence over Arctic States, control key maritime ports, and remake the international rules-based order presents a threat to people and nations, including those who call the Arctic Region home.”19

Taken together, the increasing Chinese presence in the region and the changing climate that prompted it demand an update to US posture in the region that

19 Department of the Navy, A Blue Arctic: A Strategic Blueprint for the Arctic, January 2021, https://media.defense.gov/.
anticipates the trajectory of both trendlines. A more muscular Chinese presence and an open Arctic Ocean would demand a re-evaluation of Naval requirements. For example, the US would need to consider increased Navy presence and a fleet prepared to operate in a navigable - but still dangerous - Arctic environment. Moreover, with such a presence, it would need to consider improved polar capabilities for communications and domain awareness. The 2022 National Strategy for the Arctic Region invokes these shortfalls promising to increase investment in “modernized domain awareness to detect and track potential airborne and maritime threats and improve sensing and observational capabilities, including for sensing, ship traffic and weather,” and stating it will “improve communications and position, navigation, and timing capabilities by developing communications and data networks capable of operating in the northern latitudes.” These capabilities cannot be generated instantaneously, so the planning and programming for future capabilities must begin in the near term. An important step in augmenting near-term Arctic presence is the production of new icebreakers for the US Coast Guard. The existing program includes three heavy and three medium icebreakers, with the first delivery anticipated in 2025, but the push for these new vessels started more than a decade ago. Planning for future capabilities and conditions is a near-term requirement.

Moreover, in a future with increased trade and activity in and out of the Arctic, the Bering Strait becomes an increasingly important thoroughfare, and US capability to monitor activity and maintain presence in the strait will be key to our Arctic posture.

If the US policy response was predicated solely on China’s current capabilities and activities, one might contemplate an approach with less urgency. However, one must look at this activity through two more holistic frames.

First, US posture toward Chinese activity in the Arctic must be taken as a facet of a broader Chinese policy. China poses near-term threats to the interests of the United States and its Allies, and therefore Chinese moves in the Arctic must necessarily be incorporated into that holistic picture. Practically, this means that throughout the US government, Arctic or climate policy considerations must be integrated into China policy. For example, the new China House announced by the Biden Administration must consider Chinese activity in the Arctic in a more global view of Chinese activity and strategy. Additionally, in the Office of the Secretary of Defense, the Arctic and Global Resilience Office must partner with

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20 The White House, National Strategy for the Arctic Region.
the Deputy Assistant Secretary of Defense for China to collaborate on an understanding of how China’s Arctic policies fit in a broader understanding of China’s global geopolitical goals.

Second, China may not be the primary Arctic actor that drives US calculations, but its actions intertwine with and influence Russian activities. Projections of Russian activity in the Arctic must incorporate the implications of Chinese engagement, investment, and cooperation and how they will influence Russian behavior. This is particularly important today given the increasingly close ties between Russia and China. During a March 2023 visit to Moscow, Presidents Xi and Putin agreed to cooperate more closely on Arctic transportation and energy activities, including the development of a governing structure for the Northern Sea Route. 22 Despite these growing ties, some analysts judge there are significant risks for Moscow in allowing a greater Chinese role in the Arctic, including the potential loss of dominance in the region. 23 For the United States, understanding these delicate dynamics is crucial for identifying opportunities to maintain the US position in the Arctic and drive toward continued peaceful cooperation over this crucial region in a warming world.
