The Polar Trap

China, Russia, and American Power in the Arctic and Antarctica

DR RYAN BURKE

LT COL JAHARA "FRANKY" MATISEK, PHD

Before the war little or no consideration was given to the strategic potentialities of the Polar Regions, either north or south. As a result, our pre-war strategic thinking and our military and naval training was largely confined to the tropic and temperate zones.

—Rear Admiral R. H. Cruzen, US Navy (1948)

Amiral Cruzen's ominous statement may sound like it comes from a science fiction novel, but he said this to an audience at the US Naval War College in 1948. More than seven decades later, the United States still does not devote enough strategic thought to the Arctic or Antarctic. While US leaders have had spurts of polar interest throughout the years, with occasional demonstrations of presence and power projection, polar apathy has been the norm. This indifference has resulted in a bipolar problem of China and Russia circumventing American power in the Arctic and Antarctica. But does it even matter?

The polar regions are changing, with projections of ice-free summers in the Arctic and Antarctic by 2035 and 2060 respectively, meaning their strategic value propositions are increasing.² Neighboring polar powers are orienting their policies, postures, and military capabilities toward each region because the current international order looks increasingly orderless. Absent military confrontation, the United States will not contain the ambitions of China and Russia in the remote regions of the Arctic or Antarctica. Without an adequate US response (and coherent polar strategy), China and Russia will continue making gains in the polar regions, leading neighboring polar states to rebalance their military postures and alliances to keep pace in the evolving polar strategic competition.

As of 2021, the possibility of polar warfare with China and Russia remains low. However, the problem of tomorrow should be the debate of today, and tomorrow's problem increasingly looks like competition and potential conflict over the polar regions rather than the false premise of preparing for a traditional war in Eastern Europe or the South China Sea. Thus, there needs to be an "American polar pivot" in policy and strategy (and military capability) to counter and/or deter malign actions by China and Russia in the Arctic and Antarctica.³

Compared with Russian Arctic military posture and Chinese Antarctic orientation, America is militarily behind. With recent Russian military and Chinese economic expansion, the Arctic is now en vogue for international security scholars and practitioners.4 In 2019 President Donald Trump, following in Harry Truman's footsteps, quipped of his interest in purchasing Greenland. While the media mocked the president's comments, they dismissed historic precedent and strategic implications: Greenland has tremendous geopolitical and strategic value in shaping future polar dynamics in the twenty-first century and beyond.⁵ The Department of Defense claims the "immediate prospect of conflict in the Arctic is low," but omits substantive discussion about Antarctica in its defense and security posture. The Polar regions are among the least understood strategic regions in the world, and the evidence supports that assertion.

The US Indo-Pacific Command (USINDOPACOM) is the geographic combatant command responsible for Antarctica. Despite this, its commander did not mention Antarctica once in his 41-page March 2021 testimony to the House Armed Services Committee.⁶ ADM Philip Davidson did, however, speak in detail about Russian activity in the Arctic as among one of the command's concerns, even though the USINDOPACOM area of responsibility (AOR) does not extend into the Arctic Circle. The command's northern boundary extends into the Bering Sea, thereby technically reaching the Arctic Region according to the US legal definition of the Arctic but hardly establishing itself as an Arctic-relevant command.⁷ The 11th Air Force operates in the Arctic but does so under the operational command of NORAD/NORTHCOM. The inconsistencies continue on the command's website. As of this writing, the site's "About" section proclaims that the USINDOPACOM AOR stretches "from Antarctica to the North Pole."8 This is a patently false statement and is indicative of a broader issue: the US defense establishment needs a geostrategic polar education. The intrigue of polar conflict is generating discussion marked by passionate arguments either sounding the alarm or quieting the herd.⁹

This article contends that US policy makers should understand the growing problem of suspicious Chinese and Russian actions in the polar regions. The dangers of an uncontested China and Russia may lead to a strategic imbalance in evolving regions of geostrategic and geopolitical relevance. Thus, there should be focused policy solutions and military capabilities dedicated toward ensuring that China and Russia do not further challenge the status quo at the North Pole and South Pole.

The Polar Picture

Antarctica receives scant attention relative to the Arctic in contemporary security affairs. The cold Arctic is a hot topic. Arguments concerning potential Arctic conflict have adopted two competing positions. The first group presents an *Arctic alarmist* narrative of geopolitical and geostrategic interest warranting attention from the US defense establishment to thwart the potential for Arctic conflict. The second group presents an *Arctic apologist* narrative, dismissing claims of strategic competition in the high north and apologizing to the international community for the dangerous rhetoric. Apologists promote Arctic apathy, believing that Arctic militarization is sensationalist rhetoric absent any legitimate concern and that the United States should abstain from engaging in Arctic militarization to avoid conflict. Similar dynamics present when confronting the strategic competition descending on Antarctica.

Given the divergence between the two intellectual camps and the influence each has on future polar affairs, it is prudent to consider their foundations and evolution. As we will see, each camp misses a critical commonality in their predictive end states: Regardless of whether the United States aggresses to or abstains from polar militarization, competition is happening such that confrontation is inevitable; and with confrontation comes conflict.

A Thawing Polar Debate?

In terms of potential polar conflict stemming from strategic competition, the Arctic takes center stage in academic and policy debates. The arc of Arctic security literature swings from the bellicose Arctic alarmist viewpoint to the nonbelligerent Arctic apologist perspective, with the latter viewed as the dominant (and preferred) position. Arctic apologists suggest that the United States should not increase Arctic militarization and that any advocacy otherwise is fearmongering and provocation or "poking the Russian bear."¹¹

Arctic Apologists: Avoiding Confrontation

The Arctic apologist camp points to various reasons why the United States should refrain from power projection in the Arctic—such as limited American icebreaker capabilities relative to China and Russia, overstated geopolitical significance of the Arctic, and unneeded Arctic economic resources—that all collectively amount to nonintervention. Arctic apologists claim Arctic defense and security concerns unfounded melodrama and further accuse Arctic alarmists' claims for Arctic militarization as creating the caricature of a truly cold war with China and Russia over polar bears and seals.

As US defense officials are gradually raising the Arctic profile, there is a disquieting narrative to US Arctic policy promoting a restrained approach. This camp contends that "there is no scramble for the Arctic" and that the United States must resist temptation to expand its Arctic military footprint—because doing so will give Russia an excuse to escalate militarily. 12 This narrative paints the Arctic as a traditional "zone of peace," such that anything challenging that notion injects irrational fear. 13 This narrative holds that Russian Arctic military expansion is innocuous and defensive, unworthy of international attention, and hardly enough to compel US military posturing in response. It views Russian Arctic militarization as a means for protection and economic survival in the face of perceived rival great-power expansionism in their own backyard. However, apologists ignore the growing Russian military activity in the Arctic, resting their assumptions on the supposedly normative notion of exceptional peace inherent in the polar region, assuming it too taboo for conflict. Ironically, these apologists anchor their position of a peaceful Arctic to the debunked notion of Arctic exceptionalism.

In 2015, researchers at the Finnish Institute of International Affairs examined the notion of Arctic exceptionalism: a "political vision . . . [with the Arctic] as a 'zone of peace' and a 'territory of dialogue' unlike any other region." 14 Though the Finnish scholars concluded Arctic exceptionalism as misguided, the idea of the Arctic as a remote and peaceful domain devoid of conflict has become a dominating narrative—in part because it is true. Whereas some scholarly articles advanced this peaceful position in recent years, the Arctic apologist normative narrative has gained the most popularity in the twenty-first century.¹⁵

Arctic apologists have taken their positions and filled the pages of online commentary, scholarly discourse, and even Twitter feeds with them. Public platforms are ripe with articles warning against the perils of Arctic militarization. Since 2015 alone, there are dozens of pieces advancing this position. For instance, Pincus and Berbrick contend the Arctic is not a top US geopolitical priority, encouraging nonmilitarized strategic engagement. ¹⁶ Similarly, Robert Murray claimed there was "little to gain" for Russia if it were to engage in military conflict with North Atlantic Treaty Organization allies in the Arctic.¹⁷ He argues that Russian activities are a defensive effort to secure vital Arctic economic interests and that ideas of confronting Russia only provoke tension. Stephanie Pezard echoes similar sentiments about the United States treading lightly in the Arctic to avoid unnecessary militarization and competition.¹⁸ Pezard presents an apologist framework for avoiding Arctic competition and conflict, with a warning that "titfor-tat dynamics [in the Arctic between the United States and Russia] could lead to escalation."19

More recently, Rachael Gosnell contends that the Arctic Council has sufficiently neutralized Arctic tensions for years as a stabilizing institutional body, although Russia's 2018 exclusion from the Arctic Security Forces Roundtable has raised the specter of hostility.²⁰ Dave Auerswald suggests the United States should "play the long game," contending that freedom of navigation operations in the Arctic with insufficient capabilities are a waste of time.²¹ He contends that there would be a bigger payoff to creating a global public narrative that condemns Russia's Arctic actions rather than confronting the Russian threat militarily. To this end, others such as Robert English warn of the costs of getting involved in an "Arctic arms race," arguing that doing so would be motivated by "threat inflation" and would likely end similarly to one of America's past "foreign policy blunders." 22 This is not a comprehensive illustration of the commentary denouncing Arctic militarization; rather, it is a mere sampling of the evolving position arguing for a passive approach to Arctic security that is—ironically—almost entirely reliant on increasingly fragile international institutions, norms, and traditions to maintain Arctic stability. There is even an evolving phenomenon in which Arctic apologists mock Arctic alarmists through dismissive and satirical writing, a scholarly positional harrying that seeks to discredit references to the Arctic as a potential geostrategic zone of competition and conflict.²³

Dozens of articles circulate with similar apologist positions advancing Arctic pacifism. Despite the Department of Defense's 2019 Arctic Strategy (as well as the Air Force, Army, and Navy strategies of the same tone) calling for increased Arctic awareness, enhanced Arctic operations, and rules-based order in the Arctic, the apologist narrative has been mainstreamed as a default US Arctic policy position. Whereas online commentary is littered with utopian arguments assuming geopolitical centrism and calling for a restrained approach to Arctic security reliant on institutional liberalism and diplomacy, there is comparably little peerreviewed academic scholarship that does the same. The dominant position in online commentary views the Arctic as an insignificant, unwinnable, and low-threat region, but others in both online and scholarly mediums argue the opposite and expect the Arctic—and its polar counterpart Antarctica—to be among the most important geopolitical and geostrategic hot spots that shape competition among the great powers in the twenty-first century and beyond.

Arctic Alarmists: Leverage Through Strength

Those arguing for greater American involvement in the Arctic note expanding Russian military infrastructure and Chinese economic interests for trade routes as ways the power balance can shift out of US favor absent corresponding orientation and posturing. According to this camp, Moscow's and Beijing's efforts indi-

cate deliberate attempts to outmaneuver the United States in the Arctic. Russia, under Vladimir Putin, counters America by engaging in political information warfare against the West. Moreover, US officials believe Russia is violating international treaties by virtue of testing low-yield nuclear weapons at an Arctic site in the Novaya Zemlya Islands.²⁵ China, under Xi Jinping, is also undermining America and the West. Chinese nuclear icebreakers will likely support the clearing of maritime channels for an evolving Chinese commercial industry and trade routes. However, since the economy is under the Chinese Communist Party, China will likely use its icebreakers in support of shrouded military objectives. Thus, future Chinese icebreaking and so-called commercial traffic might be a guise for positioning military assets in the Arctic, similar to the Chinese use of commercial fishing vessels in the South China Sea to veil military activity. With these and other activities in mind, Arctic alarmists point to many significant geopolitical and geostrategic indicators in their lobbying for Arctic importance.

Arctic security discourse tends toward climate discussions—identifying the Arctic as the pinnacle domain effected by anthropogenic changes to the earth's atmosphere. Since 2011, there have been four Arctic-focused edited volumes examining northern geopolitics, security, and climate change.²⁶ Though each book rebukes notions of Arctic tensions, the prevailing position contends that the Arctic is a complex domain of great-power rivalry and competition spurred by environmental changes and increased access. Each text is layered with content discussing the precarious position of international laws, institutions, and norms as they seek to collectively bind Arctic actors to a codified list of acceptable activities within a unique global commons returning to relevancy thanks to the twenty-first century surge for resources. Whereas some observers outline the evolving nature of Arctic militarization as reality—despite the Arctic's long-enjoyed designation as an international zone of peace—they acknowledge Russia's and China's advances but stop short of advocating similar advances for the United States.²⁷ While many scholars acknowledge the realities of renewed Arctic tensions, few extend their arguments to suggest deliberate Artic militarization.

Despite this prevailing hesitancy, scholars grapple with observable realities leading to the conclusion that the Arctic is no longer exceptional or a zone of peace. But just as they contend with Arctic security issues in myriad ways, they also—with some exceptions—hold a predominantly optimistic outlook and advocate change and improvement to stave off future Arctic tensions and resulting conflict. Owing to their optimism, these scholars are better labeled Arctic "advocates" than they are "alarmists," as they seek improvement by advancing the dialogue in constructive ways without blindly clinging to dated notions of Arctic stability.

Those who contribute to the discourse still see great-power economic interests and initiatives as conflict avoidance mechanisms but acknowledge that these interests can just as easily become points of future contention if mismanaged.²⁸ They acknowledge the trillions of dollars of untapped natural resources—ripe for exploitation by capable actors—as a major motivator for further Arctic undertakings.²⁹ But where the Arctic advocates stop and separate from Arctic alarmists is in their understanding of great-power activities and the underlying intent driving them.

The Arctic alarmists perceive Russian Arctic expansionist indicators as displaying similar intent to the 2014 annexation of Crimea while likewise extending China's actions in the South China Sea as a predictive analog for *their* Arctic intent. Some scholars dispute the "South China Sea as a precursor to the Arctic" argument and further question the existence of a Russo-Sino alliance. Noting Russia—China tensions, Arctic alarmists insist that Russia and China exhibit *bandwagoning* behaviors and seek to supplant the United States as the global hegemon, perceiving the Arctic as an opportunistic avenue to do so. For Arctic alarmists, establishing a military foothold now, consistent with the US Air Force's 2020 *Arctic Strategy*, calls for an expanded infrastructure base in addition to power projection, vigilance, deterrence through cooperation, and cold-weather preparation. Arctic alarmists remind us that Russia operates nuclear-powered submarines in the Arctic, has dozens of military facilities in its Arctic territory, maintains a dedicated Arctic military command, and flies bomber sorties throughout the Arctic regularly. Russia is already years ahead of the United States in the Arctic.

To alarmists, Russian military efforts are a precursor to controlling the high north, challenging American command of the commons, asserting influence, and even holding the US homeland at risk. Already, Russian military capabilities threaten the American homeland due to their unstoppable hypersonic ballistic missiles based in the Arctic.³² In the words of former US Northern Command Commander General Terrance O'Shaughnessy: "The Homeland is not a sanctuary" the way it once was.³³

Scholars will continue to debate whether the Arctic matters for the United States such that it should compel military involvement. There will continue to be disputes over Chinese and Russian Arctic ambition relative to American interests. These discussions will grapple with whether Russia aggressively seeks offensive expansion or merely defensive security for its northern territories. Others will contend with whether China—as a self-proclaimed "near-Arctic state"—actually desires Arctic influence via its Polar Silk Road (part of China's major economic Belt and Road [BRI] initiative) or merely seeks to advance its own economic position via access to Arctic resources and alternative shipping lanes connecting

Asia and Europe. 34 We will continue reading about Russian icebreakers outnumbering American icebreaker capabilities 20-to-1, or even 40-to-1—the so-called icebreaker gap—and what the United States should (or should not) do about such a capability imbalance.³⁵ Moreover, Arctic alarmists will point to the continued Russian military buildup of Arctic infrastructure, the questionably legal control Russia claims over the Northern Sea Route, and the 2014 establishment of the Northern Fleet and its Arctic focus—coupled with Moscow's planning and execution of thousands of Arctic exercises and infrastructure modernization efforts—as points of attention for the evolving Arctic significance. ³⁶

For this side, Moscow's economic and military commitment to the Arctic indicates significant interest and intent such that the United States must not dismiss it as irrelevant to future international security, especially considering the United States is an Arctic state with a national coastline on Arctic shores. We must reject the false notion of Arctic exceptionalism regarding the great-power competition of the twenty-first century. Instead, we need to adopt the notion of Arctic essentialism that sees the Arctic for its value in the international security chess game, not for the utopic zone of peace we hope it will be.

Focusing the Arctic Debate on Harsh Realities of Military Power

The Arctic is the only coastal region of the United States with an active strategic competitor conducting regular military activity off the coast, and yet northern air defenses are obsolete. The North Warning System (NWS) is an aging northerntier radar array spread across Alaska and Canada meant to identify incoming missile threats. The NWS relies on 1980s technology and needs to be replaced.³⁷ This twentieth-century system is incapable of providing sufficient warning to defend against modern Russian air- and sea-launched cruise missiles able to strike North American targets from beyond existing radar coverage. The Russian hypersonic missile threat presents an objective capability that the United States cannot overcome.

Hypersonic missiles keep US planners up at night. These are dual-threat weapons combining the flight-path maneuverability of guided cruise missiles with the speed of ballistic missiles. They can be used in two ways: as a hypersonic cruise missile propelled by a hydrogen propulsion air-breathing engine, or as a hypersonic glide vehicle launched via a rocket before detaching to glide to its target. Irrespective of delivery method, hypersonic projectiles can accelerate several times faster than the speed of sound and are able to maneuver across thousands of miles in minutes, enabling them to negate modern missile defense systems. Further compounding the threat, hypersonic missiles can be launched from land-based mobile rocket launchers or fighter aircraft, can carry conventional or nuclear warheads, and maintain precision strike accuracy to within 10–20 meters of its target (though Russia claims within a meter).³⁸ The United States has no publicly revealed capability to reliably defend against hypersonic missiles. While some warn against buying into the hypersonic hype and contend the threat is embellished, the United States cannot take that risk. As such, Russia's deployments of hypersonic weapon systems to the Arctic should give US officials reason for concern.

In December 2019, Russia confirmed the deployment of the hypersonic Kinzhal (Russian for "dagger") air-launched ballistic missile to the Arctic.³⁹ The aptly named Kinzhal can be launched from Russian fighter aircraft with a conventional or nuclear warhead traveling more than 7,600 miles per hour and strike targets 1,200 miles away with precision accuracy. Another recently deployed Russian hypersonic weapon, the Avangard hypersonic glide vehicle, reportedly travels 20–27 times the speed of sound (15,000–20,000 mph) and can strike targets up to 3,700 miles away.⁴⁰ But Russia hardly needs this range to reach the United States

Russia has an air and naval base on Wrangel Island, about 300 miles from the Alaskan coastline on the western edge of the Chukchi Sea. However, such close proximity is almost irrelevant with maneuverable land- or air-launched hypersonic missiles capable of traversing the Arctic Ocean to strike a target with nuclear warheads from more than 3,000 miles away in less than 10 minutes. At these standoff ranges, much of Alaska is within range of Russian Avangards if they were launched from any of the dozens of Russian military bases north of the Arctic Circle. These are—as Russia claims—unstoppable missiles that both Russia and China possess; the United States has neither a close analog nor the technology to sufficiently defend against them.

According to General O'Shaughnessy, Russian hypersonic missiles can "strike Alaska with little indication or warning." The NWS is more than 30 years old and incapable of effectively tracking and warning against modern hypersonic missiles. To establish a good defense, the United States is pursuing answers to this tangible threat in the Arctic via its efforts to develop the Strategic Homeland Integrated Ecosystem Layered Defense (SHIELD), a system designed to detect and defeat threats to the United States. The problem is that SHIELD, while a fancifully named defense, is a long way from operational reality. In the absence of a good defense against advancing adversaries in the Arctic, the United States needs a good offense in the surface domain to forestall these formidable systems. This security problem is only compounded by the fact that the situation is no better in the maritime domain.

Beyond the inadequacy of the NWS relative to modern Russian surface strike capabilities, Russia's new submarines are quieter and more difficult for US under-

sea surveillance capabilities to reliably track and predict. Russian submarines can effectively maneuver undetected throughout the Arctic Ocean. 44 US naval presence in the Arctic provides a "fundamental security confidence" for US power projection, but US naval capabilities are equally inadequate when it comes to polar operations relative to Russia and China.⁴⁵

As Russian capabilities advance both in speed and distance, the vast Arctic—as a new "battlespace"—begins to compress. 46 Battlespace compression leads to reduced reactions times and—given US reliance on twentieth-century technology—an inability to defend the US homeland against a modernized Russian Arctic force capable of exploiting US complacency in future strategic competition. The Pentagon insists that the 2019 *Arctic Strategy* is rooted in and informed by the 2017 National Security Strategy (NSS) and 2018 National Defense Strategy. The first pillar of the 2017 NSS is to "protect the American people, the homeland, and the American way of life," and the first secondary pillar of this priority focus is to secure US borders and territory. Despite this charge, the United States cannot meet this intent on its northern Arctic border operating under the current technological disparity. This is a critical vulnerability, and the most recent 2021 *Interim* National Security Strategic Guidance, issued by the Joseph Biden administration, omits any reference to the Arctic and Antarctica.

Russian capabilities coupled with Chinese nuclear icebreakers and polar flying squadrons have collectively established a polar offset with greater polar military capabilities compared with those of America. Measuring and understanding intent is difficult to quantify and interpret, so predicting future conflict is equally challenging. However, the Artic alarmist argument looks at objective indicators of the polar power policies and activities in the poles coupled with the changing geography and corresponding geopolitical environment to inform its collective position that the Arctic is now—or soon will be—an arena for great-power conflict. To this end, interpreting Arctic actions by strategic competitors is just as important as understanding their similar behavior patterns in Antarctica.⁴⁷

The South Pole Blind Spot

Polar geopolitics with an eye toward defense and security affairs—inclusive of both the Arctic and Antarctica—is not a topic of regular debate among academics and practitioners. Few have questioned how the polar regions collectively will evolve as geopolitical and geostrategic inflection points of competition. What are the strategic implications for Arctic competition relative to Antarctica?

Whereas Arctic security is now a regular discussion point, Antarctic dialogue generally assumes that the Antarctic Treaty System (ATS) will assure indefinite peace. 48 The Antarctic Treaty of 1959—and its complementary agreements forming the ATS—is the primary regulatory framework for Antarctic activity. The Antarctic Treaty prohibits military maneuvers and specifies that military assets can be used only for assisting scientific research, logistics, and search-and-rescue missions. The Protocol on Environmental Protection to the Antarctic Treaty (the Madrid Protocol), signed in 1998, designates Antarctica as a "natural reserve devoted to peace and science." Thus, Antarctica has been—save for a handful of singular incidents mentioned above—entirely demilitarized since the treaty entered into force in 1961. 50

Despite the Antarctic Treaty's restrictions on militarization, Chinese and Russian actions elsewhere indicate their willingness to deviate from international laws, rules, and norms. Some scholars and policy makers remain committed to the assumption that China and Russia will respect international institutions, despite numerous contradictory examples.⁵¹ Currently, Chinese actions in Antarctica blur the lines between military operations and research. Just as the Chinese expand their "civilian research presence" in the Arctic as an apparent veil for enabling a future military presence tied to economic interests, they likewise appear to be pursuing a similar approach in Antarctica through expanding capabilities and infrastructure projects including research stations, airstrip construction, and the creation of a dedicated Antarctic air squadron in 2016.⁵²

According to Anne-Marie Brady, China is "keeping other states guessing about its true intentions and interests" in Antarctica.⁵³ Brady and others perceive China's increased Antarctic activity—now totaling 36 Antarctic expeditions and counting—as posturing for exploitation after the Madrid Protocol enters a period for renegotiation in 2048, or perhaps earlier if the Antarctic Treaty is abandoned.⁵⁴ To this point, speaking at the Mitchell Institute in 2019, US Air Force general Charles Brown recounted an incident in which a Chinese icebreaker experienced mechanical issues in the Antarctic region and, instead of traveling to New Zealand (the closest port of repair), suspiciously traveled direct to China. "Coincidence? Makes me a little suspect," General Brown stated.⁵⁵ In the context of strategic competition and the potential for future conflict, Chinese and Russian motives must be reexamined.

Chinese military ambition is global in nature and underpinned by China's BRI efforts. Beijing has invested (or attempted investments) in Greenland, Iceland, Canada, Nicaragua, sub-Saharan Africa, the South and East China Seas, Australia, New Zealand, Papua New Guinea, and other areas to form the linked network for the BRI as the primary vehicle for advancing its global hegemonic ambitions. Antarctica is no exception. Considering these and other Chinese actions, we should not be surprised that General Brown publicly states the Antarctic is "just a number of years away" from a great-power competition similar to the Arctic. 57

Though Antarctica does not rival the Arctic in geographic relevance or economic importance to the United States, continued omission of Antarctica from the strategic competition narrative further enables Chinese exploitation of the ambiguities present in international agreements. As an example, the US State Department's 2019 Indo-Pacific Vision cover page has a map of the region, which excludes Antarctica, and rest of the document's 32 pages have no mention of the continent in any context.⁵⁸ These are subtly significant indicators of US Antarctic indifference, providing exploitative motivations for strategic competitors like Russia and China. Moreover, China increasingly views itself as a polar power.⁵⁹ The United States is not a near-Antarctic power by geographical standards, but by virtue of being a hegemon and defender of the commons it is a de facto near-Antarctic power.⁶⁰

There is too much at stake in the era of renewed strategic competition and the evolution of space as a future conflict domain for Antarctica to remain Washington's strategic blind spot. The United States must strengthen its partnerships with New Zealand and Australia (and other near-Antarctic partners) as gateway countries for Antarctic access. The continued use of Christchurch International Airport to fly annual Operation Deep Freeze missions in support of the US Antarctic Program warrants bolstered support.⁶¹ Scholars and policy makers must address Antarctica in future debates and include it in strategic discussions on polar defense and security, precisely because the future of American space power and operations is dependent on communication infrastructure in the polar regions.

Besides excluding Antarctica from the polar picture, the debate is superficial and devoid of historical context and theoretical considerations as predictors of future action. The discussion over true Russian and Chinese intent in the polar regions is ambiguous, and ambiguity begets speculation. With speculation saturating public commentary, the discourse continues to overlook the lessons of history. What about the evolving polar-region dynamic parallels history? And what can we learn to offer a glimpse into the future of potential polar conflict? In terms of strategic competition and conflict, history must be included to form a comprehensive predictive narrative influencing future policy and strategy. Policy that informs strategy toward particular ends is best informed by an understanding of the relevant history shaping the current environment. For the polar regions, history runs deep.

History and Context

Since the early twentieth century, the United States and many other nations have conducted polar military operations and military-supported scientific expeditions. As more countries arrived in the polar regions, the need for international cooperation mechanisms grew. Both the Antarctic Treaty and the Arctic Council were designed as solutions to resolve polar tensions, with many holding these cooperative institutions in high regard. Yet, these supposedly effective institutions are seldom discussed in contemporary policy circles, as they both lack effective enforcement mechanisms. Historical antecedents are often useful points of departure such that we cannot afford to continue overlooking relevant history and theory in debates about future strategic competition in the Arctic and Antarctica. History provides insights on how command of the commons is at stake in the polar regions and how disagreement over who commands the commons is a reliable predictor of confrontation and eventual conflict.

From the seventeenth century to the early twentieth, the British controlled the maritime commons. Because they controlled the commons, they controlled the seas. Those who most control and influence a domain make the rules. China and Russia are attempting to establish polar dominance via their respective polar pivots. Polar presence will promote influence, which will lead to economic gain and increased global power sufficient to destabilize, potentially, the international system to the detriment of the West. Hegemonic stability theory holds that the world order is most stable under unipolarity with a single global hegemon. So, a Chinese or Russian challenge to American command of the commons—via related challenges to or departures from the existing polar claims and international covenants—will have certain destabilizing effects. Consider the tenets of the so-called long cycle theory: since the fifteenth century, hegemonic power transitions tend to occur, on average, every 75 years. It has been more than 75 years since the United States first assumed its status as the world leader. If history is any indicator, the United States is primed for challenge to its hegemony.

There are numerous warning signs of rising powers asserting regional hegemonic ambition in the Arctic and Antarctica. The budding Chinese and Russian "strategic partnership,"⁶⁴ a revisionist Russia relapsing to Cold War–era aggression and rhetoric, and China's antagonistic global expansionism combined with known and demonstrated Polar interests, activities, and investments demonstrate commitment to change. Revisionist states have explicitly undermined US interests since at least 2010 such that their ambitions cannot be dismissed as innocuous or inconsequential. The polar regions are opportunistic targets of low-risk, high-payoff expansion for China and Russia given the relative lack of American polar presence and policy commitment.

Strategic competition is on the rise, and the ingredients for international confrontation and eventual conflict are brewing. The polar regions, more than any other, pose the greatest threat to current American hegemony. Two rising powers

are challenging the current power. History again tells us, by way of Graham Allison's descriptive problem of the *Thucydides Trap*, that when these conditions are present, the potential for conflict increases. In this way, there are indications abound suggesting that we are progressing toward the realization of a similar Polar Trap.

The Polar Trap

Considering Chinese and Russian policies and actions, the polar regions are becoming easy power grabs. Whereas the United States stands as the current global hegemon, or the ruling power in historical narrative, increased activities by China and Russia in the polar regions—coupled with American strategic dithering elsewhere in the world—contribute to the necessary preconditions for realization of the Thucydides Trap. Coined by Graham Allison in 2015, the concept suggests that whenever the rise of an ambitious power threatens to dethrone the existence of a current hegemon, the likely result is war.⁶⁵

According to Allison, 12 of the 16 recorded cases of a rising power threatening a ruling one in the past 500 years resulted in war. 66 Some, such as Jonathan Kirshner openly, question Allison's assumptions and arguments, chiefly that his caseselection bias supports his theory and that the four cases where war did not result all occurred after 1945 where nuclear weapons changed the calculus behind greatpower wars.⁶⁷ Still, there is empirical validity to the concept that provides utility in applying it to a lesser-known region. In this way, we generate a template for understanding future polar power competition and predicting a potential Polar Trap under similar circumstances.⁶⁸

The Thucydides Trap is illustrative of a security dilemma when a ruling power proactively confronts a rising power militarily over a contested domain, thereby leading to greater militarization and raising the potential for conflict. In each of Allison's cases, he identifies the period in which the conflict occurs, a ruling power, a rising power, a contested domain, and a binary outcome of war or no war. Using this framework, there are similarities to the evolving situation in the polar regions. Whereas the rise of Athens supposedly threatened Sparta and catalyzed war, continued tensions stemming from Russian and Chinese presence in the polar regions will likewise undermine American hegemony. Increased military activities by rival competitors will continue producing the conditions for confrontation.

Conditions for the Polar Trap

Allison's theory stems from his interpretation of Thucydides's writings in the History of the Peloponnesian War.⁶⁹ According to Allison, Thucydides focused on the shift in the balance of power between Athens and Sparta as the basis for their eventual conflict. Allison contends Thucydides specified two primary drivers of the dynamic leading to the trap: (1) the burgeoning *entitlement*, sense of *importance*, and demand for *influence* by the rising power, coupled directly with (2) the rising power's *fear* and *insecurity*. When a rising power demonstrated each of these attributes, Allison and his research team found that they challenged—in some way—the ruling power of the time. Though Allison's team limited its study to 16 cases, 75 percent of the historical cases meeting these criteria resulted in war. The team further identified two cases in which the United States was the ruling power and simultaneously threatened by at least one rising power: World War II and the Cold War.

In general, the international order maintains stability when states are satisfied with the order and thus adopt an orientation to preserve the status quo. Threats to the international order tend to come from dissatisfied states seeking to gain more territory, better status, or different rules. Dissatisfied states, then, adopt revisionist agendas and increasingly "mount challenges against the hegemon and its order" whenever the hegemon fails to accommodate their interests or actively seeks to restrict them.⁷² In this way, the circumstances of World War II are notably similar to twenty-first century great-power competition.

In World War II, the United States faced the Axis Powers: the German, Italian, and Japanese alliance intent on upending Western democratic norms. In today's competitive environment, Russia and China demonstrate similar motivations. Is Russia or China baiting the United States toward conflict with one so that the other can rise to power? The nuclear tensions and military posturing of the Cold War are similar to today's contemporary security environment in that the presence of nuclear weapons alone seems to prevent large-scale military conflict for fear of irrecoverable escalation into nuclear warfare.

Whereas the existence of nuclear weapons continues to serve as a mutual deterrent, great-power conflict is not a figment of twenty-first century imagination. Rather, an emerging body of scholarship suggests that great-power conflict can "unravel without anyone ever firing a shot." History tells us that during periods of hegemonic transition, the hegemon

faces increasing difficulties in maintaining its preferred international order; its relative decline encourages other states unhappy with that order to seek to renegotiate terms, build alternative arrangements of one kind or another, probe for weaknesses, and even directly challenge the dominant power or its allies. In the worst-case scenario, peaceful adjustment to the changing distribution of military and economic capabilities proves impossible; as it did in World War I and World War II, the system collapses into a devastating great-power war.⁷⁴

After 75 years of hegemony, the United States today is dealing with a revisionist Russia and rising China. History is not on Washington's side at the moment. Moscow and Beijing are working to build alternative global structures that alter the American-led status quo. Each continues prodding for US vulnerabilities, carried out via sharp power campaigns meant to undermine US domestic and US-led international institutions. China and Russia are actively pursuing military and economic influence efforts in the polar regions, as a perceived weakness to US primacy. With weakening status, Cooley and Nexon argue American hegemony can fall via three main mechanisms, or "pathways of change": great-power challenges, changing small and weak state behaviors, and transnational contention. There is evidence of each occurring in the contemporary international security environment.

Polar Pathways of Change

In terms of great-power challenges, (i.e., direct contestation from competing peer or near-peer states), the United States faces increasing challenges from both Russia and China spanning economic, diplomatic, and informational strategies. Military challenges remain distanced and indirect, but confrontations between US forces versus Russian and Chinese forces are becoming more frequent in the Arctic and the South China Sea, respectively. China's ascent to international influence has also led to notable changes in small and weak state behaviors. As an example, 18 of the 30 NATO member states currently have a signed memorandum of understanding to economically partner with China's BRI.⁷⁵ NATO states with ties to the BRI are predominantly among those considered weakest within the NATO alliance, furthering Cooley and Nexon's notion of changing small and weak state behaviors as a precursor to US hegemonic unraveling. What does China's BRI and its connection to the weak states within the NATO alliance say about NATO's future stability?

According to Cooley and Nexon, *transnationalism* entails the destabilization of previously held norms and foreign policy frameworks. They further contend that rising powers wishing to contest the ruling power and the established order adopt "wedge" strategies to dissolve the fabric of the order and its structure. ⁷⁶ Hegemons such as the United States provide a collective security proposition to weaker states, incentivizing allegiance absent a better alternative. This proposition provides a security blanket (i.e., subsidy) to small states lacking strong economies to build and maintain organically powerful militaries sufficient for their own security.

When economic powers such as China enter the fray and offer financial incentives to small states, it can be a compelling and competing value proposition that strains existing alliances. In a form of realpolitik, if a powerful state can offer sufficient incentive for a weaker state to question the value of its existing security blanket and ideologies, this threatens to unravel the threads of ideologically sewn alliances. With most NATO states economically partnered with China—a country the United States now labels as its "greatest potential adversary"—a question is raised about NATO's legitimacy as an alliance durable enough to withstand Beijing's economic wedge-driving.⁷⁷

Consider as well that many of the current international institutions serving as the "connective tissue" of the contemporary international order were established during the US unipolar movement. These longstanding US-led institutions are at risk of dissolving at worst or repurposing and reorganizing at best. From 2017–2020, the Trump administration governed on an "America First" platform that openly denounced the value of and need for multilateralism, international organizations, alliances, and liberal values in general, viewing such arrangements as a "threat to American power." As the United States backed further away from international institutions under the Trump administration, questioned alliances and partnerships, and generally condemned the international community for collectively freeriding on the back of the US economy, Washington gave away its formal and informal position as hegemon—giving China an opening to make numerous peripheral gains at the expense of the West.

Chinese Conditions

In developing his theory, Allison focused on China as a rising power intent on challenging the United States as the current ruling power. To this end, Allison notes that Lee Kuan Yew—who Allison calls the "world's premier China watcher"—predicted that China's ambition is unquestionably global hegemony. Adding to this, Chinese president Xi Jinping has stated on numerous occasions his unambiguous intent to change the world order by putting China on the path to "global eminence." China's growing sense of self-importance and global ambition are robust. Few doubt Chinese intentions of unseating the United States as the dominant global superpower. Worse, China has developed a "grievance-fueled sense of entitlement," demonstrated in the ongoing territorial disputes in the South and East China Seas. 82

We should consider Beijing's behavior here and in other areas as indicators of broadening—and largely unchecked—ambition. The United States is the only nation capable of counterbalancing Beijing's ambition. However, China is leapfrogging US containment efforts and is on track to challenge American hegemony by trying to secure its own ports and airfields across the South Pacific.⁸³ Whereas the United States maintains more than 800 bases or installations world-

wide, its polar-region presence is comparably nonexistent. 84 Beijing knows this and it is exploiting this American strategic oversight.

Absent military presence and strategic orientation to the north and south, the United States is unable to influence these areas the way it can elsewhere. Without a power to balance against at the ends of the earth, Beijing began its own polar pivot in 2017. China's self-proclaimed status as a "near-Arctic state" illustrates entitlement despite the fact that no such recognition exists.85 A "near-Antarctic state" view of China is also fostered domestically in China by sending the secondmost number of tourists to Antarctica of any country, thereby familiarizing its citizens with the continent and creating a narrative of China's destiny to manage the future of Antarctic control.86

In further attempts to advance its polar influence, China's Polar Silk Road policy broadens its ambition to assert power and influence over the polar regions. China's Yellow River Research Station in Svalbard is among its most prized polar achievements. To the south, its newly developed Antarctic air squadron serves a research mission similar to that of the US Air Force logistics support of the National Science Foundation, yet questions remain about the nature of such activities due to ongoing Chinese efforts to conceal Chinese Antarctic operations.⁸⁷

Since Australia and New Zealand are members of the American-led "Five Eyes Alliance," Beijing knows that, in a crisis, neither country would support Chinese operations in Antarctica. Thus, China appears to be laying the groundwork for supporting Antarctic operations via infrastructure projects in the South Pacific near New Zealand and Papua New Guinea. Beijing is building a port facility and—presumably—military infrastructure at Luganville Wharf in Vanuatu, a small, underdeveloped island nation only 1,000 miles north of New Zealand, to the concern of Australian leaders. 88 Similarly, China inked a deal with Papua New Guinea to build a "comprehensive multifunctional fishery industrial park" on Daru, a small island community just off the country's southern coast and about 125 miles north of Australia. 89 This deal gives Beijing proximal access to northern Australia and Port Darwin, where Beijing has a long-term port lease that has deterred the US Navy and Marine Corps from establishing its own infrastructure. 90 The implications extend beyond Beijing's apparent attempts at driving a wedge between Australia and the US military's attempts at securing regional presence.

Daru Island sits approximately 4,100 miles south of China's Port of Shanghai—the world's largest container port—via maritime route. Hardly a coincidence, Daru Island is about 4,000 miles north via maritime route of China's newest Antarctic research station on Inexpressible Island in Terra Nova Bay in the Ross Sea—China's closest station to the US McMurdo Station on Ross Island.⁹¹ On Daru Island, China gains dual-use (commercial and military) infrastructure at an equidistant location between its largest mainland port and its newest Antarctic research station while also securing a location that puts it in close proximity to its Darwin port and the geographic focal point of the US Navy and Marine Corps in the region. For context, we must couple these geostrategic moves with American military commanders' concerns with China's unwillingness to allow unfettered Consultative Party inspections of their five Antarctic research stations, per Article VII of the ATS. Continued Chinese secrecy in Arctic and Antarctic activities lends further weight to the argument that Beijing's polar ambition is malign—and that institutions meant to keep both regions peaceful are failing to enforce basic rules.

Those who continue to dismiss the rise of China as a threat to the United States and international norms are not paying attention. The Chinese economy is expanding to outcompete the United States in numerous indices (depending on one's measure of economic strength). ⁹³ In terms of gross domestic product, China's meteoric ascent since the 1980s shows no signs of leveling off. Yes, using GDP as the basis of assessing China's economic strength is unidimensional in that it measures only production and ignores costs or consumption rates, but it is nonetheless a global indicator of a state's economic productivity. Some will argue that China—due to its enormous population and consumption needs—is an inefficient economy in terms of its net indicators (or, more generally, its productivity minus its costs). ⁹⁴ Whereas China's GDP makes it the second-most powerful country in the world by that sole indicator, if we consider its net indicators inclusive of its productivity minus costs, Beijing's strength is far less impressive.

To this end, others contend that China is not a threat because of its fragile economy, that the significance of its global influence is overstated based on flawed logic, ignorant to the realities of unquenchable resource consumption needs. However, this position unwittingly advances the argument establishing China's insecurity and increasing ambition. Despite growing economic power by way of productive measures, China shows signs of insecurity and fear of continued American hegemony and an inability to satisfy its resource needs under the continued unipolar American-led world order. China seeks to enhance its global power position based on a "power-as-resources" strategy, circumventing international institutions in the polar regions and elsewhere to serve as potential cornerstones to securing resources to satisfy this thirst.⁹⁵

China is demonstrating strategic ambitions of challenging American hegemony. To meet its power-as-resources goal, Beijing's ambitious, entitled, selfrighteous government and military pursue global influence via international infrastructure investments to stay relevant on the global stage. China's approach to global influence through infrastructure investments and debt-trap diplomacy creates new spaces of power. Chinese actions have met the necessary preconditions for realization of the Thucydides Trap. While this so-called trap is an abstract academic conceptualization, we should consider its applicability to the polar regions.

Russian Conditions

While the Chinese only recently developed polar policies and military capabilities, Russia began its own polar pivot in 2001. It began with Russia filing the first of three unsuccessful (to date) territorial shelf claims to the United Nations seeking to extend its exclusive economic rights from the coast to the North Pole. 96 In 2007, Russia demonstrated its Arctic capability and intent by symbolically planting its flag on the geographic North Pole Arctic seabed.⁹⁷ Such Russian symbolism extends to Antarctica as well. In 2004, Russia built an Orthodox church at one of its Antarctic research stations. As a year-round operation, the church holds services for Russian researchers and is a visible demonstration of Moscow's sustainable presence and influence on the continent.98 These selfimportant efforts have dovetailed with expanded military infrastructure projects in the Arctic, hostile actions in Georgia and Ukraine, and disingenuous claims that American military forces deployed to the Baltics are a threat to Russian sovereignty.⁹⁹

In raising concerns about US actions, Russia feeds the narrative that the United States is a global bully. President Putin's continued anti-Western rhetoric advances the argument that Russia seeks alternative institutional structures whereby the United States no longer serves as the default leader in geopolitical affairs and where Moscow enjoys status as a regional hegemon over Eurasia and the Arctic.

Russian sense of entitlement and self-importance mirrors that of the Chinese, but given geographic proximity, coastal access, and economic importance, Russian ambitions are focused in the Arctic rather than seeking global eminence. Moscow's aggressive posture toward the Northern Sea Route and threats to use military force against ships refusing to meet Russian requirements indicate its intent to control what it believes is legally Russia's—what Russia is entitled to control. 100 Such actions are a direct challenge to freedom of navigation and Washington's desire to command the commons toward this end, but Moscow pursues its agenda with supposed economic intent.

Approximately 20 percent of the Russian economy is dependent on the Arctic. The resources located there provide enduring interest for Russia to continue its contested claims to the high north. With the Russian economy tied the "primordial homeland," the Arctic is a vital national interest. Considering Russian economic dependence on natural resources, this Arctic interest is one of survival as Moscow seeks alternative means to support the economy and declining population. This, coupled with Russia's plans to link its control of the Northern Sea Route with China's Polar Silk Road, indicates a major initiative to influence and control evolving Arctic economic activities. ¹⁰¹ Expanding Russian Arctic military infrastructure will make this a natural outcome, as the country's unfettered ability to operate in the region will give its power to dictate Arctic rules.

Following the reopening of Cold War–era Arctic military bases and an expanded Arctic footprint, Russia's intent to militarize the Arctic and secure its security interests is broadly advertised. Such a rapid and extensive military infrastructure investment in a targeted region indicates insecurity fueled by a desire to control and exercise sovereignty throughout the high north. Russia's fear of losing—or intent to maintain—Arctic influence is undeniable. Adding to their physical infrastructure, the Russians have reorganized northern military units and expanded their Arctic asset portfolio in attempts to assert military dominance in the region. The Northern Fleet is the "largest, most powerful, and most modern" of the Russian naval forces with daily activity throughout the Arctic, though it is not a large fleet in comparison to US naval fleets. In Antarctica, Russia leverages its status as an ATS signatory to influence Antarctic operations in pursuit of its own objectives, despite disagreements with New Zealand and others.

Moscow demonstrated its assertiveness with the December 2019 announcement about operational hypersonic missile deployments in the Arctic. Beyond this, Russia's icebreaker fleet is the largest in the world and growing; it has extensive air defense and electronic warfare capabilities; and its concern about American ballistic missile submarine deployments is well known. As Russia expands the "Ice Curtain," fear and insecurity fuel a military deterrent project in the Arctic. In other words: Russia seeks an aggressive-*looking* Arctic military posture to deter others and to maintain access to resources. Russia's economic instability and dependence on the Arctic's natural resources makes influence over the region imperative for future national growth and sustainment. However, military expansion alone does not indicate hostile intent.

There is credence to the idea that Arctic conflict is the last thing Russia wants, because war would degrade Russia's economic stability. But a militarily ambitious Russia in the Arctic—perhaps seeking only to deter others—has had the opposite effect. Rather than preventing increased militarization from NATO, the United States and its allies have expanded their Arctic postures and orientation. The security dilemma is now a polar dilemma. Russian Arctic aggression rises to Thucydidean proportion with indicators of intent to aggress toward a situation in which the United States is in a regionally subordinate role.

A potential or attempted shift in the balance of power—as Allison observed in his chosen cases—among today's rivals grows more likely with each passing year of investments in Arctic capabilities. Applying Allison's framework to the polar regions illustrates a rising Chinese power intent on securing influence in both the Arctic and Antarctica by way of polar flying squadrons, the Polar Silk Road policy, expanding investment in Greenland and Iceland, and a self-proclaimed label as a "near-Arctic state." Likewise, Russia's widening and contested claims to Arctic territory, combined with its buildup of military infrastructure—to secure its posture and interest in the region—make for an equally compelling concern indicative of an increasingly self-important state motivated in part by fear and insecurity. In this context, competing interests and actions toward the polar regions to date are beginning to meet Thucydides's two preconditions for realization of this trap.

Avoiding an American Polar Trap

Critics of Allison's Thucydides Trap argue his vision of hegemony's rise and fall is too static, that it lacks nuance and consideration for the unique aspects of each period and the relative dynamics shaping competition and conflict decisions. Despite the critiques, Allison's frame is a useful heuristic for considering the potentialities of great-power war stemming from polar-region confrontation and conflict. Just as German efforts toward "political hegemony and maritime ascendancy" threatened England in the early pre-World War I era, simultaneous—and sometimes complementary—Chinese and Russian efforts to reject the current international system threaten American hegemony.¹⁰⁷

Debates over the extent and intent of Chinese and Russian ambition continue. Whether they pose an existential threat to American hegemony is also debatable, but what is not debatable is that the levels of Chinese and Russian polar presence, power, posture, and policy dwarf those of the United States. There is a growing literature arguing that the US-backed world order is in decline and that Russia and China are the principal challengers to the ecology of this order—seeking to write the obituary to US hegemony. For those who reject notions of conflict with Russia or China, we know that it "makes no sense to think that hegemonic systems, or international orders more generally, will ever be free from violence and coercion."108

The evolving situation in the polar regions is indicative of China and Russia's intent to challenge the status quo. With continued US inaction toward the polar regions, Russian and Chinese geostrategic advantages will increase, and the capabilities gap will widen to an insurmountable distance. This could lead to an American catastrophe if a polar crisis occurred.

Getting American Policy and Military into the Polar Race

The polar regions are ripe for future power tensions. In 2019 there were two major shifts in US Arctic military posturing, largely due to increased Russian activity in the high north. The 2019 announcement that the US Air Force will station F-35 squadrons at Eielson Air Force Base (Fairbanks), its northernmost Alaskan base, is a contribution to a necessary force posture capable of deterrence and response.¹⁰⁹ Across the Atlantic, the 2019 reestablishment of the US Navy's 2nd Fleet as the "maneuver arm for NAVNORTH, in the Atlantic and the Arctic," provides a ready naval force for international power projection to ensure freedom of the seas and to act as a regional deterrent. 110 While this is not a dedicated Arctic Command per se, the US Navy's 2nd Fleet reopening (following its 2010 closure to reallocate budgets to other priorities) is in direct response to increased Russian activity in the Arctic. And in Europe, US rotational force deployments in the Baltics must continue, despite inflationary Russian rhetoric labeling these a "threat." While deploying 700 Marines to Norway on short-duration rotations is insufficient for Arctic deterrence, it does provide a better understanding of the limits of equipment and personnel in polar conditions.

These American actions are akin to finger-wagging and fall short of consistent military presence, power projection, and strategic orientation. The 2nd Fleet's area of operations *includes* the Arctic but is not *dedicated* to the high north as its sole operational domain. The Arctic is bisected between US European Command and US Northern Command, further bureaucratizing operational priorities and spans of control. Worse, the lack of American influence in Antarctica is even more pronounced due to current ATS prohibitions on military activities. Still, China seems to be deviating from the ATS restrictions, or at least stretching the allowable limits of military logistics support, toward questionable ends. This is partly why the Trump administration released the Polar Memo, the first-of-its-kind White House memo on national security interests in the Arctic and Antarctica, including hints of developing and deploying weaponized icebreakers for polar-region military activities as a counter to similar Russian and Chinese development efforts.

China and Russia can exploit the Arctic and Antarctica because the United States has not prioritized them and thus lacks infrastructure, military capabilities, and policy intent necessary to counter malign actions in each region. The Russians and Chinese can secure a territorial and economic advantage in the polar regions while holding American interests at bay and even under threat of attack on the homeland in Alaska. In this case, we have not one rising power but two—two rising powers that, despite tension elsewhere, have demonstrated a common in-

terest and willingness to collaborate in polar-region activities. Russia and China threaten to weaken US global leadership, and the United States currently lacks the capability and intent to counter revisionist behavior in the polar regions. The Biden administration—in the upcoming NSS—must acknowledge the danger of Chinese and Russian ambitions in the polar regions and direct the State Department and Pentagon to strategize various ways of countering their actions.

The United States cannot afford to adopt the Antarctic/Arctic apologists' passive approach toward the polar regions and falsely assume that Russian and Chinese actions are benign. Such a strategic miscalculation will set the stage for future conflict. The naysayers who dismiss potential polar conflict as twenty-first century paranoia should reconsider Graham Allison's thoughts on "man's capacity for folly":

However unimaginable conflict seems, however catastrophic the potential consequences for all actors, however deep the cultural empathy among leaders, even blood relatives, and however economically interdependent states may be—none of these factors is sufficient to prevent war, in 1914 or today. 113

In 1935, the military aviation enthusiast Billy Mitchell argued that Alaska was "the most strategic place in the world." 114 As noted in the epigraph, Admiral Cruzen would later caution the United States about not considering polar warfare. The American defense establishment has seen this polar problem coming for decades. Now that it has arrived, it should compel action and the consideration for new approaches to meeting this evolving power imbalance. The likelihood of conflict is increasing, especially as communicating with some satellites is dependent on infrastructure in each polar region.

The United States must consider the real threat of a modern-day Thucydides Trap in the polar regions. Most preconditions for realization of this trap have (or will soon) come to fruition. The United States must learn from history and act now to avoid the so-called Polar Trap rather than react later. Failure to act now and pursue policy actions to inform posturing, presence, and polar power projection will lead to the first geographic, geopolitical, and military power imbalance the United States has experienced in the post–World War II era. The possibility of the Polar Trap now raises the specter where not one but two competing powers threaten the ruling power, possibly upending the current global order. Polar conflict is not impossible or implausible; it is both possible and plausible.

Thus, American leadership must pursue four courses of action to ensure hegemony as well as freedom of movement in the Arctic and Antarctic Circles:

First, polar policies need be created that make it clear to China and Russia that the United States will no longer permit further rule- or norm-breaking in the Arctic and Antarctica. This might mean giving clear guidance to a combatant command about having authority over all polar military operations.

Second, explicit polar strategies and budgets will need to be devised and followed through on to ensure that China and Russia cannot break the status quo in the polar regions without facing consequences. This means drawing red lines and funding polar warfare capabilities to ensure compliance with treaties and international law in each region.

Third, the United States must seek closer ties with partners and allies in the Arctic and Antarctic regions as a way of cooperating against Chinese and Russian transgressions in each region. Such a balancing approach makes it easier for the United States to counter China and Russia diplomatically in the polar regions by relying on neighboring proxies to further develop Polar warfare capabilities as a deterrent signal.

Finally, the United States must dedicate resources in the intelligence community toward better interpreting Chinese and Russian actions in the polar regions and toward neighboring infrastructure that might later support polar military operations. These actions are necessary for countering Chinese and Russian actions in each polar region and for ensuring that the American rules-based order continues without further contestation. \bullet

Dr Ryan Burke

Dr. Burke is a professor in the Department of Military and Strategic Studies, United States Air Force Academy, research director for the Homeland Defense Institute, and co-director of Project 6633 at the Modern War Institute at West Point. Dr. Burke's book, *The Polar Pivot* (Lynne Rienner, 2022), illustrates how the Arctic and Antarctic are rapidly emerging as geopolitically strategic hot spots.

Lt Col Jahara "Franky" Matisek, PhD

Lt Col Matisek is an associate professor in the Department of Military and Strategic Studies, United States Air Force Academy, a senior fellow at the Homeland Defense Institute, and fellows director for the Irregular Warfare Initiative at West Point. Lt Col Matisek's book, *Old and New Battlespaces* (Lynne Rienner, 2022), describes how everything is becoming weaponized as civil society comes under constant attack.

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