

TO: SENIOR PENTAGON LEADERSHIP, COMMANDERS OF THE
COMBATANT COMMANDS, DEFENSE AGENCY AND DOD FIELD ACTIVITY
DIRECTORS

FROM: CHAIRMAN OF THE JOINT CHIEFS OF STAFF,

SUBJECT: NET ASSESSMENT OF THE MARITIME MILITARY BALANCE IN
THE ARCTIC BETWEEN THE US AND CHINA, FROM 2015 TO 2035

1. How to Think About the Balance

The United States-China Arctic Maritime Military Balance Assessment will assess the US Navy's and the People's Liberation Army (PLA) Navy's ability to project and sustain military power in the Arctic Circle, defined as the circle of latitude 66°33' north of the Equator.¹ The functional character of the balance includes the ability to control access to the Arctic Ocean, deploy and sustain forces, detect and monitor foreign activity, establish and maintain supply lines, and deter aggression in the Arctic Circle. The assessment will frame the balance based on geography and the changing physical environment, current equipment and equipment production, alliance capabilities and politics and how they relate to basing and logistics and Arctic specific operational experience. The assessment's temporal scope will cover the aforementioned factors in the past ten years, 2015-2025, to describe the likely maritime military balance in the coming decade, 2025-2035. The primary subjects of the assessment will be the American and Chinese navies, given the outsized economic and military capabilities of the US and China compared to the other interested parties.^{2 3} NATO Allies and Russia will be treated as secondary subjects that will contribute to the maritime military balance to a lesser extent than the primary subjects due to varied priorities and capabilities.

Strategic competition and as an extension the maritime balance in the Arctic is by default a multilateral competition owing to the multitude of actors present in the region. The assessment should recognize that seven of the eight Arctic nations are NATO Allies. It should treat the Alliance as a force multiplier and consider which NATO maritime assets are and will be suitable for the Arctic environment, the level of command and logistics integration within the Alliance, and the presence and location of naval bases that can be made available to Allies. It should also consider the political will of the Allies to commit resources to potential actions in different scenarios as a limiting factor on NATO's influence on the maritime military balance. Although hard to qualify, political will to commit resources to action in the Arctic can be informed by past commitments in other regions and domains, and through a comparison of individual Allies' economic and military capabilities, official strategies and distance to and presence in the region. The assessment should make the same considerations when considering the effects of the cooperation between the Russian Armed Forces and the PLA on the maritime military balance in the Arctic.

The Arctic holds significant strategic value for the national security of the United States of America for its natural resources, maritime shipping routes and its location in relation to major national capitals. Through Alaska, the US is among eight Arctic states, which include Canada, Denmark, Finland, Iceland, Norway, Russia and Sweden. The region is estimated to have 770 to 2990 trillion cubic feet of undiscovered natural gas, 44 to 157 billion barrels of oil, and numerous deposits of a variety of rare-earth minerals.⁴ It is home to multiple maritime shipping routes, including the Northern Sea Route, Northwest and Northeast Passages, and an

increasingly accessible Transpolar Sea Route that significantly cuts transport times from Europe to East Asia, presenting an attractive alternative to the Suez Canal.⁵

Alaska is the closest US state to the North Pole and thus has the shortest flight path from the US to many major states' capitals and population centers including Berlin, Seoul, Tokyo, Moscow and Beijing.⁶ This makes the Arctic critical to American security for two reasons. First, adversaries might choose to launch their attacks, such as those employing ballistic missiles, over the Arctic to make use of the shorter flight path and thus reduce the time between missile detection and impact. Second, much like its potential adversaries, the US can make use of the short flight path through the Arctic to conduct offensive strikes against its adversaries that would allow for very limited reaction time.

The Russian objective in the region is to deny and impose costs on foreign military access, to increase its ability to project power in the region and to maintain the integrity of the Northern Sea Route.⁷ The Russian invasion of Ukraine in 2022 has shifted Moscow's long-standing policy of limiting Chinese involvement in the Russian Arctic to one of reluctant acceptance. The Northern Sea Route, which has been used extensively by Russia to transport liquified natural gas to China, holds critical importance in the bilateral relationship as Russia's exports to Europe have been reduced significantly following the invasion of Ukraine.⁸ The PRC owns significant stakes in Russian gas, oil and mining projects, including the Yamal Liquefied Natural Gas project, Arctic LNG 2 and Russian Titanium Resources. Furthermore, it has been selling technologies required for the operation of these projects to Russian companies, including drilling rig installations and gas turbines.⁹

The number of new Chinese companies being established on an annual basis in the Russian Arctic region has increased from 48 to 123 from 2020 to 2023, and the two countries are increasingly collaborating on dual-use technology research in the region.¹⁰

China declared itself a near-Arctic state in 2018 and emphasized in the same declaration that states outside the region have the right to exploit resources, to navigate and to conduct research in the region.¹¹ China's strategic goals in the Arctic are somewhat aligned with the Russian Federation's in relation to imposing costs on foreign military access. The Chinese Coast Guard and the Russian Federal Security Service Border Service signed a memorandum of understanding in 2023 to promote maritime law enforcement cooperation and organized a coast guard drill.¹² The Chinese politburo aims to use the Arctic as yet another medium through which it can challenge US influence and the rules-based international order. Following on this objective, it has conducted "freedom of navigation" operations in the region, most recently in the Bering Sea in 2024.¹³ The Polar Silkroad project aims to link Europe and Asia through transportation networks, and is an essential component of the infamous Belt and Road Initiative, and a core driver of why Beijing has made substantial investments in the Russian Arctic. As these investments continue to accelerate, China Communist Party will have a greater stake in the security of its investments in the region. Although China has no military installations in the region, deepening cooperation with Russia points to the possibility of the PLA Navy utilizing Russian naval bases when needed during potential operations in the future. PLA Navy's dependence on Russian bases in the region will likely motivate the Chinese

Politburo to help Russia enforce its continental shelf claims in the Arctic Ocean in the future.

Although the effects of climate change have eased access to the Arctic circle, climate and geography remain crucial limitations in maintaining control over and ensuring the security of the region for any actor. Sea ice still present does not allow for four season navigation particularly near the North Pole for any kind of vessel. A comprehensive net assessment will have to consider changing sea ice levels across the seasons, projections for ice levels in the region for the coming decade, and the impact of such changes on the navigation ability of different kinds of vessels. Moreover, the assessment should consider the military implications of several maritime chokepoints present in or near the Arctic Circle, such as the Bering Strait.

The force structure and capabilities of the US and PLA Navies' maritime assets will be an integral part of the assessment, in conjunction with other factors. Since environmental factors are particularly challenging in the Arctic, using traditional naval balance metrics by themselves can be misleading. Particular attention should be paid to icebreakers, submarines, replenishment oilers, arctic-capable surface vessels and ISR assets. The assessment should also consider assets that may not yet be available but are actively being procured or built. Comparing Arctic suitable assets will help inform which actor(s) have the capability to operate in the region.

The Arctic's extreme weather and geographic conditions make sustaining operations in the region a challenging endeavor. The ability to sustain prolonged operations in the region will depend on the length and security of supply lines, number of forward

operating bases and their distance to the area of operation, ability to perform maintenance and repairs at said bases, as well as sealift and airlift capacity.

Finally, the assessment should consider plausible and policy-relevant scenarios that reflect potential changes (or the lack of it) in external factors. The variance in scenarios should reflect what the US administration might consider policy uncertainty in the foreign affairs of China and its allies. Two uncertainties that relate to the Arctic stand out. First, whether the cooperation between China and Russia will continue and if it does, how will the extent of cooperation change.^{14 15} Second, whether the Chinese Politburo and Xi Jinping specifically views the PRC as ready to confront the US directly. The assessment should include scenarios that represent the most dangerous course of action (deepening cooperation with Russia and high PRC risk appetite) considering that the consequences of being underprepared for such scenarios would be severe and potentially irreversible for the interests of the US.

2. Objectives

The primary US objective in the region is to maintain the US-led rules-based order by deterring Russian and Chinese efforts to enforce new norms and exercise jurisdiction over disputed territories.¹⁶ The US is pursuing this goal most prominently through an intensive intelligence collection initiative in the Arctic region that seeks to capture attempts by China or Russia to disrupt freedom of navigation and/or military infrastructure build-up. The Department of Defense 2024 Arctic Strategy sets out a three-pronged strategy of enhancement (of Arctic capabilities and intelligence collection), engagement with Allies, and exercise of “tailored presence”, described as a combination of permanently stationed Joint Force units and intermittent trainings and exercises.¹⁷

The secondary US objective in the Arctic is to ensure the security of the northern approaches to the homeland against Russian and Chinese long range strike and undersea threats. The 2022 National Strategy for the Arctic Region and the 2024 DoD Arctic Strategy both approach the Arctic as a front line of homeland defense. Adversaries' missiles, bombers and submarines transiting through the Arctic can substantially shorten warning and reaction times to attacks on the United States. Therefore, the Joint Force seeks to maintain the ability to detect, track and defeat such threats in the Arctic air and maritime domains, with a special emphasis on long range ISR capabilities, undersea surveillance and integrated air and missile defense systems over Alaska and the North Atlantic.

Moreover, the US desires to maintain the low tension and relatively security-competition-free nature of the Arctic, and ensure the continuity of the existing governance mechanisms such as the Arctic Council. US strategy calls for preserving freedom of navigation along routes such as the NSR and the Transpolar Sea Route, resisting efforts by the PRC and Russia to treat international waters as internal seas.

Finally, the US seeks to leverage its allies forces as deterrents against attempts by the PRC and/or Russia to undermine aforementioned objectives, and as force multipliers should there be an escalation in tensions. The US aims to integrate allied sensors and bases into a common operational picture, ensuring robust ISR and logistics capabilities.

3. Trends and Asymmetries

The maritime balance between the US and the PRC is not defined by naval force on force today but by trends in access, infrastructure and legitimacy which will either enable or constrain future military operations. From 2015 to 2025, the main trends can be identified as (1) accelerating commercial use of the Russian Arctic to China due to a climate driven increase in navigable days, (2) a steady increase in Chinese presence under scientific and law enforcement cover, (3) a US and allied shift from expressions of concern to a monitor and respond posture based on domain awareness, and (4) a visible deepening of Sino-Russian coordination in energy, shipping and maritime security, especially along the NSR.¹⁸

3.1 Navigability, Shipping and Energy

Climate change has led to the lengthening of the ice free season along the Eurasian Arctic littoral and made seasonal use of the NSR more commercially viable. Russian Arctic LNG exports to Asia have increased despite sanctions, with China emerging as the biggest purchaser and terminal destination.¹⁹ In 2024 and 2025, Russian producers began moving Yamal and Arctic LNG 2 cargo to Chinese terminals via the NSR in the summer navigation season using Arc7 carriers²⁰. These energy flows are civilian, but they set the stage and create operation habits and dual use infrastructure that have the potential to support PLAN logistics in the future.

A defining asymmetry for the balance is that the PRC's Arctic access is mediated through Russia's commercial and energy strategy, while the US and its allies control most of the other critical approaches to the Arctic including the North Atlantic, the Greenland-Iceland-Norway corridor and the Greenland-Iceland-United Kingdom (GIUK) gap. Russia's need to find alternative markets for sanctioned energy exports makes Beijing a preferred buyer and investor, which gives the PSC leverage over

Arctic infrastructure without owning Arctic territory. In contrast, the US does not have to depend on any single partner for access, however, continued availability of allied bases and intelligence gathering in the region remains a key asset to toward achieving US objectives.

Each incremental increase in Sino-Russian energy and shipping cooperation in the Arctic gradually improves China's future logistics options while equivalent US and allied investments improve domain awareness and response capacity, not economic leverage. The US advantage is structural and geographic, the PRC's advantage is its ability to ride along on Russian economic necessity, making use of NSR services and to normalize a Chinese logistics presence in the Russian Arctic.

3.2. Geographic and Basing Asymmetry

The geography of the Arctic favors the US and its allies in the maritime competition in the Arctic Circle. The vast majority of Arctic States being US allies creates a continuous line of friendly territory from the Bering to the Barents and Greenland seas. Nato has emphasized the High North in its command arrangements and exercises, integrating the North Atlantic and Arctic under a coherent theater within US and allied naval commands.²¹

In contrast, China has no Arctic coastline and no sovereign bases in the region. Its maritime presence depends on Russian ports and often icebreaking support, as well as scientific stations and commercial projects in the Arctic states that are politically contested and subjected to host-nation control. Thus, the US and its allies enjoy shorter lines of communication, more diversified access points and better options to

disperse forces, while the PLAN has to project across the entire Pacific and operate from infrastructure which in many cases it does not own. Even under optimistic scenarios, PLAN presence will be constrained by what Putin is willing to tolerate on its soil and internal waters.

The asymmetry and US advantage is deepening over time as US-Nordic defense cooperation increases and new members join NATO. At the same time, while Sino-Russian cooperation is deepening in the region, it again remains host centric. Russia invites PLAN and PLA Coast Guard vessels to exercises and patrols, but retains control over basing, rules and framing of the NSR as a transport route.²²

The practical implication of this trend is that China's maritime options in the Arctic remain contingent and reversible while US and allied access is embedded in geography and treaty commitments.

3.3. Force Structure and Capability Trends

In raw fleet numbers, the PLAN has grown substantially over the past decade, outpacing the US Navy in total hulls and expanding its blue water reach.²³ Despite this, only a minority of those forces are relevant to Arctic operations. The PLA's most visible Arctic capable platforms are designed with polar research and icebreaking purposes (i.e. Xue Long), which have already performed multiple scientific expeditions in the Arctic. These platforms are formally categorized as civilian vessels but they provide experience in ice navigation and help gather environmental data which can be leveraged for military operations in the future.

The US Navy retains a qualitative advantage in attack submarines, undersea surveillance and long range maritime ISR but it has relatively few icebreakers and polar-capable surface platforms. This shortcoming is highlighted in the 2024 DoD Arctic Strategy, calling for the acquisition of new Polar Security Cutters – but given the long time horizon necessary for the acquisition of such platforms, the USN is unlikely to catch up to PLAN within the given time period.

China has a growing polar capable civilian fleet and an advantage in icebreaking capability, as well as access to Russian nuclear and diesel icebreakers through commercial cooperation, yet it has no Arctic based combat force and no undersea or air defense architecture of its own.

The US and its allies have substantial undersea, Anti-Submarine Warfare (ASW) and ISR capabilities around the Arctic and has growing exercise experience in Arctic conditions, however, it has a small number of high-end icebreakers and polar-capable surface combatants.^{24 25 26}

Throughout 2025-2035, US strategy suggests that it will prioritize domain awareness, undersea warfare and logistics resilience over building a large Arctic surface fleet. In contrast, Chinese planning appears likely to expand Arctic research, logistics and access while deferring overt Acti combatant deployments to avoid provoking a US and Allied response. The balance is thus trending towards US informational and undersea superiority and incremental gains by the PRC in ice navigation.^{27 28 29}

3.4. Operational Patterns

Since 2015, Chinese maritime behavior in the Arctic has shifted from rare, scientific voyages to regular, multi platform joint operations with Russia. Joint PLAN – Russian Navy patrol have operated in the region since 2021, and a combined flotilla of 11 ships transited near Alaska in 2023, prompting criticism from Washington.^{30 31}

In the law enforcement domain, the Russian Federal Security Service Border Guard and the Chinese Coast Guard signed a maritime law enforcement cooperation memorandum in 2023, explicitly pledging to work jointly on soft security issues such as fishing, smuggling and illegal migration. This agreement led to the first joint coast guard exercise in the Russian Arctic in 2024 and later to joint patrols in the Bering Sea where the US Coast Guard observed two Chinese and two Russian vessels operating in formation inside Russia’s Exclusive Economic Zone (EEZ).^{32 33 34}

The PSC is leveraging Russian geography to bring joint forces close to US territory, operating around the US EEZ near Alaska while the US is primarily operating near allied territory. US presence is framed as support to allies and proception of global commons while Chinese presence is framed as freedom of navigation. Practically, this means that operational friction is more likely in the eastern Arctic and Bering region where Chinese and Russian assets can combine proximity to US territory with legal narratives about freedom of navigation and law enforcement.

4. The PRC’s View of the Balance

This section addresses how the Chinese Communist Party’s (CCP) Politburo Standing Committee (PSC) and President Xi Jinping view the PRC-US maritime military

balance in the Arctic, drawing from official policy papers, publicly available policy analyses and developments in the region dating back to 2015.

Understanding the PRC's strategic objectives in the Arctic requires its contextualization within Xi Jinping's overarching vision for international security. The Global Security Initiative (GSI), introduced in 2022 by the Chinese Ministry of Foreign Affairs, outlined President Xi's designs for a new international security order, emphasizing the concepts of non-interference, dialogue and consultation, and the importance of the United Nations (UN) and multilateralism in addressing security challenges.³⁵ The GSI, while not explicitly referring to the US, accuses it of prioritizing its own security at the cost of others and declares that the US is responsible for the reemergence of a "Cold War mentality", defined by bloc confrontation.³⁶ Moreover, the GSI frames the PRC as a more responsible international security actor that respects the principles of sovereignty and multilateralism. In the Arctic context, where the PRC has no territory, the CCP is especially dependent on the cooperation of the Arctic States to extend its influence, making the GSI narrative of a responsible and cooperative China especially useful. The PRC's state enterprises' growing investments in the region are framed as contributions to international cooperation rather than footholds for exerting further influence and projecting power in the Arctic.

The State Council Information Office of the PRC defined the "Arctic Issue" as one that is relevant to states beyond the traditional Arctic States in its 2018 Arctic Policy and declared itself a near-Arctic state with an important stake in Arctic affairs.³⁷ The Arctic Policy supports the PRC's claim to involvement in the region with what it refers to as the "global effects of the changing natural conditions" and highlights several issues in the region that the PRC is already involved in addressing, including

climate change, scientific research, utilization of shipping routes, resource exploitation and security.³⁸

The PSC set explicit goals in the 2018 Arctic Policy to increase its capacity to conduct research, use Arctic technology and develop shipping routes in the Arctic. Moreover, it has expressed commitment to addressing security threats in the region, specifically ensuring the security of maritime trade and transport, despite having no publicly known military footprint in the region.³⁹ Therefore, maritime access to the Arctic Circle, as well as maritime transport rights, is an integral part of the military maritime balance from Beijing's perspective. Other interests, including resource exploitation and the security of transport routes, are highly dependent on unobstructed maritime access to the Arctic Ocean for the Chinese vessels. Moreover, the PSC views the geographic scope of maritime balance in the Arctic not as confined to the Arctic Circle but as an extended maritime transportation corridor that connects the Pacific Ocean to the Arctic through the Bering and Vilkitsky Straits. The PSC is especially concerned with the integrity of this extended transportation corridor as an enabler for pursuing other goals as long as there are no permanent PLAN naval bases in the region that can support and sustain extended naval deployments in the Arctic.

The current nature of the competition for the PSC is about support infrastructure and control over logistics, and fear over being denied further expansion in the region by the US and its allies. The Arctic States' condemnation and refusal to work with Russia within the Arctic Council over its invasion of Ukraine likely reinforced the PSC's perception of the threat of denial by the US and its allies. The PSC views the Arctic as a region that is increasingly becoming another front for great power competition, and the accelerating infrastructure investments in Arctic territories of all Arctic States

by Chinese enterprises represent an attempt to get ahead of the curve by establishing a permanent foothold in the region that can later be an enabler for power projection.

Therefore, the PSC does not evaluate the balance in terms of force structure compared to the US, but rather in terms of legitimate presence in and access to the region. The PSC measures success by how much it has embedded the PRC in Arctic governance forums such as the Arctic Council, its access to maritime infrastructure and energy supply chains along the Russian Arctic coastline, and the degree to which future PLAN and People's Armed Police (PAP) Coast Guard operations in the Arctic Ocean can be enabled and normalized. Adopting this evaluation framework, the PSC most likely considers its Arctic policy a limited success so far. The Russian invasion of Ukraine and the subsequent sanctions by the United States, the European Union and its member states pushed President Putin to open up the Russian Arctic to more Chinese influence than ever before.⁴⁰ Collaboration in the Arctic among the PRC and Russia has been increasing in frequency and depth, with increased investment into the Russian Arctic by Chinese enterprises and security cooperation between the Chinese Coast Guard and the Russian Federal Security Service (FSB).^{41 42} Security cooperation in the Arctic between the two countries started with a Memorandum of Understanding on Arctic Maritime Law Enforcement in mid-2023, followed by joint bomber and coast guard patrols in 2024 and further expanded by a November 2025 announcement of a Memorandum of Understanding on Joint Naval Training for Arctic Navigation.^{43 44 45}

These patterns reveal several tendencies in how the PSC and Xi conceptualize the Arctic balance. First, they show a clear tendency to pursue influence through civilian and commercial means rather than direct military deployments, including state owned enterprises, research stations and infrastructure. Furthermore, they frame the Arctic as

an international governance problem, assuming that increased involvement and presence in multilateral forums and increased commercial activity in the region can convert presence into legitimacy over time. Third, they prefer a risk-averse, incremental path of expansion in the region, where they assess with great detail what actions would provoke a US and allied military reaction.

Chinese enterprises have been expanding their investments in Arctic States other than Russia as well, but a significant portion of deals made do not go through, and there is substantial resistance by regional governments to certain investments over security concerns, most notably to land purchases.⁴⁶ Resistance to Chinese investment by NATO allies and reliance on Russia makes the balance vulnerable to shifts in Putin's strategic calculus and constrains the PSC's establishment of a sovereign foothold in the Arctic. The PRC is present but not yet entrenched in the region, and it fears that the window for embedding itself as a stakeholder may be closing as the US and allies adopt an increasingly hawkish stance on Chinese influence.

The PSC seems to assume that Arctic governance remains consensus-based, when in reality the Arctic Council's exclusion of Russia from its proceedings since 2022 show that it has shifted decisively toward bloc confrontation and exclusion. This reflects a core misperception where the CCP overestimates the resilience of inclusive Arctic governance arrangements and underestimates the willingness of the US and its allies to securitize access when their core interests are threatened. Consequently, a long-term Arctic strategy based on legitimacy building and cooperation is not sustainable for the PSC, as can be observed from the Arctic States' resistance to Chinese investments. More importantly, in the context of its Arctic policy, the PSC treats Russia as a reliable enabler of Chinese influence in the region. Although its vast Arctic territories and current strategic priorities allow the PRC to extend its influence,

the CCP is aware that Putin's interests can quickly diverge from Xi's in case of a rapprochement with the West, which can turn a decade of Chinese investment in the Russian Arctic to sunk costs overnight. Thus, despite accelerating Chinese investments into the Russian Arctic, the PSC is likely withholding resources and limiting the depth of cooperation with Russia in the Arctic to some extent.

In addition to the PSC's predicament with Russia, its internal reforms over the past decade are likely to considerably influence its actions and thinking in relation to the maritime military balance in the Arctic for the foreseeable future. The CCP's long standing collective leadership model has undergone substantial rollback since 2012 under General Secretary Xi Jinping, being replaced by a "top-level design" through, among numerous others, the establishment of new party commissions, the absorption of key ministries and their mandates by these commissions, and the appointment of Xi to the chairmanship of these commissions and several influential party groups.⁴⁷ Thus, the PRC's policies concerning the Arctic, as well as other policy areas, have been and will likely continue to be shaped in this context of consolidation in the CCP.

Although the consolidation of power allows Xi to overcome bureaucratic resistance and exercise direct control over the state to reach its goals in the Arctic, it also makes the PRC more vulnerable to strategic miscalculations in the absence of scrutiny.

The PSC believes that peaceful assets in the Arctic today can turn into operational and political enablers of power projection tomorrow. Increased resistance to Chinese influence will likely force the PSC and President Xi to reconsider its approach to the Arctic in the future, with the substance of the policy shift being dependent on Xi's risk appetite. The PRC's Arctic Policy is ultimately highly intertwined with the broader geopolitical competition with the US. Heightened tensions and overt confrontation with the US in other regions and domains can shift the PRC's Arctic Policy from

legitimacy building to forceful exercise of control over transit routes. At the same time, China's lack of territory in the region and its resulting dependence on Russia is a fundamentally limiting factor for the PRC's Arctic Policy, and can force President Xi to abandon his infrastructure build-up and plans for control over resources and transit routes in the region when confronted with an ultimatum. In the end, the combination of Beijing's strategic ambiguity when it comes to security enforcement in the Arctic and the opacity of the PRC's bureaucracy make an assessment of its strategic goals highly prone to misinterpretation, however, the current operational reality suggests a trend of increasing securitization of the PRC's Arctic Policy.

5. Scenarios

This assessment uses scenarios to bound uncertainty along two primary variables that matter the most for the maritime military balance in the Arctic:

1. Depth of Sino-Russian cooperation in the region, and
2. The PSC's risk appetite for direct confrontation with the United States and its allies.

5.1. Scenario 1 – Managed Competition

Sino Russian cooperation in the Arctic continues to deepen in energy, shipping and law enforcement but remains primarily commercial and soft security in character. The PSC retains a risk averse approach in the Arctic, focused on legitimacy and long term access rather than over confrontation with the US. Russia continues to rely heavily on Chinese capital and markets to monetize hydrocarbons, but Putin (or successor/s) still seeks to avoid becoming a formal junior partners. Moscow is willing to open more projects and infrastructure to Chinese enterprises and coast guard presence, yet stops short of granting standing PLAN basing rights. The PSC interprets the Arctic as a long run opportunity where it can still gain influence through civilian and commercial

means, and remains cautious about steps that can trigger escalatory reactions from NATO states.

- Russian LNG and dry bulk shipment to China via the NSR increase slowly as ice free days grow and sanctions pressure continues. Chinese firms maintain or slightly grow stakes in key project and charter a steady flow of Chinese owned carries on the NSR.
- Chinese polar research vessels, logistic ships and occasional PLAN surface vessels continue to participate in scientific expeditions and joint maritime patrols with Russia near the Bering region but deployments remain intermittent and signaled in advance.
- Joint Chinese Coast Guard-FSB Border Guard patrols in the Bering Sea and along the NSR become a regular feature of the operating environment, but they operate just inside Russian jurisdiction or in international waters and avoid deliberate incursions into US territorial seas.
- NATO and US forces continue to expand cold weather training, integrate Nordic bases into planning and invest in domain awareness and undersea warfare. US icebreaker capacity improves modestly but remains limited.

The maritime balance favors the United States and its allies in terms of access, ISR and undersea capabilities. PRC's gains are in logistics, legal presence and dual use infrastructure along the Russian Arctic coast that still can be militarized later but are not configured for combat support.

Operational friction concentrates in the Bering region and around joint patrols, but the PSC and Putin both prefer to keep incidents below the threshold that might provoke major US retaliation.

5.2 Scenario 2 Integrated Alignment and High PRC Risk Appetite

Sino-Russian cooperation in the Arctic deepens significantly, moving from pragmatic economic alignment to a strategic partnership in the region. At the same time, Xi and the PSC decide that the PRC is ready to accept a much higher risk of direct confrontation with the US including in the Arctic as part of a broader global competition. Western sanctions on Russia remain in place and may be expanded, eliminating the possibility of rapprochement with the West. Moscow decides that the only way to sustain its Arctic projects and pursue its strategic goals is to accept deeper dependence on China. At the same time, the PSC concludes that the window for embedding the PRC as an Arctic stakeholder is closing as NATO hardens its stance, and that a more assertive posture is required to protect sunk investments and demonstrate global reach. The PSC becomes willing to use the Arctic as a supplementary pressure front against the US, alongside crises elsewhere.

- Russia provides the PLAN and Chinese Coast Guard regular access to selected Arctic ports (e.g. Murmansk) for refueling, resupply and maintenance, justifying it with joint economic interests. Chinese logistic vessels begin to preposition small stores and spares in Russian facilities.
- Sino-Russian naval exercises expand to include complex combined operations in the Arctic Circle such as joint ASW drills, exercises in icy waters and rehearsals for defending undersea cables and energy infrastructure. Joint bomber and naval patrols near Alaska become larger and more frequent, testing US response times and procedures.
- PLAN surface combatants and Chinese Coast Guard cutters deploy regularly in the Bering Sea conducting freedom of navigation operations and law enforcement patrols that intentionally push legal and political boundaries.

Encounters with US Navy and Coast Guard units become more escalatory with more frequent close approaches and harassment by unmanned systems.

- Russia and China move toward a shared maritime domain awareness system along the NSR and in key checkpoints, integrating land based radars, acoustic arrays and satellite coverage. In conflict, this architecture could support coordinated tracking of US and allied vessels and aircraft.

The Arctic this becomes a contested maritime theater in the US-PRC competition. The PLAN can sustain seasonal deployments of combatants and law enforcement assets in proximity to US territory, operating from Russian naval bases.

US assumptions of uncontested undersea and ISR dominance near the Russian Arctic littoral and in the Bering become invalid. Sino-Russian competition raises the risk that US surveillance platforms and seabed infrastructure could be monitored and threatened in crisis.

In a Taiwan or Western Pacific crisis, the PSC might authorize coordinated actions in the Arctic, such as attacks on undersea cables and shadowing of US vessels, to stretch US attention and demonstrate escalation options.

5.3. Scenario 3 Fragmented Cooperation and Cautious PRC

Sino-Russian cooperation in the Arctic stall or partially reverses and the PSC remains risk averse in the region. Xi judges that direct confrontation with the US is not worth the cost, especially if it jeopardizes broader economic growth or other objectives in the Western Pacific. Russian domestic constraints or sanctions relief reduce Moscow's dependence on China and lead it to hedge between Beijing and the West. Some Arctic projects underperform, are delayed or become too costly, prompting both Russia and

China to scale back ambitions. Arctic states tighten investment screening, blocking further acquisitions of infrastructure by China.

- Chinese stakes in the Russian Arctic projects persists but are not expanded. Some NSR shipping continues for commercial reasons but volumes stabilize.
- Joint exercises and patrols continue occasionally but are smaller. Moscow is less willing to accept the political risk of regular PLAN access to sensitive Arctic ports.
- Chinese activity reverts to scientific expeditions, commercial shipping and diplomatic engagement in the Arctic where accepted. PLAN deployments to the Arctic become rare. The PSC instructs state owned enterprises to avoid projects that risk being blocked by Arctic host nations.
- The US and NATO continue to invest in Arctic ISR, ASW and logistics, integrating Nordic Allies and Alaska into a coherent theater. With fewer visible Chinese actions in the region, political attentions shifts away from the Arctic.

The maritime balance in the Arctic is clearly favorable to the US and allies. China remains an interested stakeholder with some economic presence but lacks reliable Russian logistical support and faces high political barriers to expanding its footprint. Primary threat in this scenario is complacency, where US decision makers may be tempted to downgrade Arctic investments, assuming Chinese constraints are structural and permanent.

6. Implications

The assessment suggests that the United States does not need, and probably cannot afford, to “mirror-image” Chinese behavior in the Arctic with a large, dedicated Arctic

surface fleet. What differentiates the U.S. position is not hull count north of 66°33', but: (1) proximity to the Arctic via Alaska; (2) an arc of allied territory from the Bering to the Barents and Greenland seas; and (3) a qualitative edge in undersea warfare, long-range ISR, and integrated air and missile defense.

Force planning guidance should treat the Arctic as an operating environment where existing U.S. and NATO strengths are adapted for cold-weather operations, not as a separate fleet-building project. Additional Arctic spending that does not improve those cross-theater capabilities risks consuming resources without shifting the long-term balance.

At the same time, structural advantages are only as good as the infrastructure that makes them usable. That requires sustained investment in dual-use ports, airfields, fuel, and communications in Alaska, Greenland, Iceland, Norway, and the Nordic Arctic. In budget terms, this suggests treating Arctic infrastructure and domain awareness as part of homeland defense and alliance assurance, not as discretionary “theater extras” that can be raided to solve short-term problems elsewhere.

Across all sections of this assessment, Russian behavior is the decisive external variable in China’s Arctic trajectory. The PRC cannot become a serious military actor in the region without Russian territory, icebreakers, and ports. Sino–Russian cooperation is therefore a conditional force multiplier for the PRC, not an immutable constant.

The Department should plan as if Moscow’s choices about access and cooperation are contestable over time, not predetermined. That does not mean betting on “splitting” Russia from China in the near term, but it does argue for

1. Treating any movement toward standing PLAN access to Russian Arctic ports, shared domain awareness systems, or complex joint exercises north of the Arctic Circle as early warning indicators of movement toward the most dangerous scenario;
2. Designing sanctions, export controls, and diplomatic initiatives with an eye to raising the opportunity cost to Moscow of deepening Chinese access to Arctic infrastructure; and
3. Systematically mapping where Russian and Chinese objectives diverge (e.g., control over NSR rules, technology transfer, nuclear bastion protection) and using that to inform both intelligence collection and long-term engagement strategies.

For U.S. planners, the key point is to avoid treating Sino–Russian Arctic alignment as either trivial or inevitable. The balance in 2035 will be significantly worse for the United States if we allow a slow drift toward routine PLAN presence out of Russian ice-free ports without contesting that trajectory diplomatically, economically, and informationally.

-
- ¹ Congressional Research Service, *Changes in the Arctic: Background and Issues for Congress* (Library of Congress, 2025), <https://www.congress.gov/crs-product/R41153#fn3>
- ² International Institute for Strategic Studies, “Chapter Two: North America, Regional trends in 2024”, *Military Balance* 125, (2025): 15-28 34-50, <https://doi.org/10.1080/04597222.2025.2445474>
- ³ International Institute for Strategic Studies, “Chapter Five: Asia: Regional trends in 2024”, *Military Balance* 125, (2025): 206–311, <https://doi.org/10.1080/04597222.2025.2445477>
- ⁴ United States Geological Survey, *Final Report U.S. Geological Survey Oil and Gas Resource Assessment of the Russian Arctic* (Department of Energy Office of Fossil Energy, 2010), 4-5, https://netl.doe.gov/sites/default/files/2018-04/05nt15538_finalreport.pdf
- ⁵ Bennet et al., “The opening of the Transpolar Sea Route: Logistical, geopolitical, environmental, and socioeconomic impacts”, *Marine Policy* 121, 104178 (2020): 1, <https://doi.org/10.1016/j.marpol.2020.104178>
- ⁶ Micheal J. Forsyth, “Why Alaska and the Arctic are Critical to the National Security of the United States”, *Military Review*, February 2018, <https://www.armyupress.army.mil/Journals/Military-Review/English-Edition-Archives/January-February-2018/Why-Alaska-and-the-Arctic-are-Critical-to-the-National-Security-of-the-United-States/>
- ⁷ Mathieu Boulege, *The Impact of the War Against Ukraine on Russia’s Arctic Posture: Hard Power on Vulnerable Ice*, (Wilson Center, 2024), 4-10, <https://www.wilsoncenter.org/publication/impact-war-against-ukraine-russias-arctic-posture-hard-power-vulnerable-ice> ⁷ Deirdre Kirsten Tatlow, “China and Russia to Expand Scientific Cooperation in Arctic: Report, *Newsweek*, August 30, 2024, <https://www.newsweek.com/china-russia-news-expand-scientific-cooperation-arctic-1946208>
- ⁸ Conley et al., *A New Era of Arctic Geopolitics: Russia-PRC Strategic Alignment Is Driving Unprecedented Regional Collaboration*, (German Marshall Fund, 2024), 2-9, <https://www.gmfus.org/sites/default/files/2024-07/A%20New%20Era%20of%20Arctic%20Geopolitics.pdf>
- ⁹ Strider Technologies, *Shifting Ice*, (Strider Technologies, 2024), 6. https://content.striderintel.com/wp-content/uploads/2024/02/Strider_Shifting_Ice_Report.pdf
- ¹⁰ Ibid.
- ¹¹ The State Council of the People’s Republic of China, *China’s Arctic Policy*, (gov.cn, 2018), https://web.archive.org/web/20180201020119/http://english.gov.cn/archive/white_paper/2018/01/26/content_281476026660336.htm
- ¹² China Coast Guard, *China Coast Guard, Russian Federal Security Service sign MoU*, (Office of China Coast Guard Bureau, 2024), https://www.ccg.gov.cn/mhenu/lbt/202405/t20240516_2230.html
- ¹³ Stephanie Pezard and Abbie Tingstad, *Is the Polar Silk Road a Highway or Is It at an Impasse? China’s Arctic Policy Seven Years On*, (RAND, 2025). <https://www.rand.org/pubs/commentary/2025/02/is-the-polar-silk-road-a-highway-or-is-it-at-an-impasse.html>
- ¹⁴ Elizabeth Wishnick, *Strategic Ambiguity and the Deterrent Value of the Sino-Russian Partnership*, (China Aerospace Studies Institute, 2022), https://www.airuniversity.af.edu/Portals/10/CASI/documents/Research/CASI%20Articles/2022-10-31%20Strategic%20Ambiguity%20and%20the%20Deterrent%20Value%20of%20the%20Sino-Russian%20Partnership.pdf?utm_source=chatgpt.com
- ¹⁵ U.S. Department of Defense, “2024 Arctic Strategy”, (Department of Defense, 2024) 1-18, <https://media.defense.gov/2024/Jul/22/2003507411/-1/-1/0/DOD-ARCTIC-STRATEGY-2024.PDF>
- ¹⁶ U.S. Department of Defense, “2024 Arctic Strategy”, (Department of Defense, 2024) 1-18, <https://media.defense.gov/2024/Jul/22/2003507411/-1/-1/0/DOD-ARCTIC-STRATEGY-2024.PDF>
- ¹⁷ Ibid.
- ¹⁸ U.S. Department of Defense, *2024 Arctic Strategy* (Washington, DC: DoD, 2024); “DoD Announces Publication of 2024 Arctic Strategy,” July 22, 2024.
- ¹⁹ Irina Slav, “Cheap Russian LNG Keeps Flowing Despite EU Promises,” *OilPrice.com*, September 15, 2025, accessed December 2, 2025, <https://oilprice.com/Energy/Natural-Gas/Cheap-Russian-LNG-Keeps-Flowing-Despite-EU-Promises.html>.
- ²⁰ “Yamal LNG Cargo Delivered to China via NSR,” *LNG Prime*, July 17, 2024, accessed December 8, 2025, <https://lngprime.com/vessels/yamal-lng-cargo-delivered-to-china-via-nsr/117434/>.
- ²¹ John Vandiver, “High North Highlight: US, NATO Special Operators Show How ‘Adversarial Aggression’ Is Met,” *Stars and Stripes*, October 14, 2025, accessed December 8, 2025, <https://www.stripes.com/theaters/europe/2025-10-14/us-special-operations-arctic-norway-19421861.html>.

²² Astri Edvardsen, “China’s Coast Guard on First Patrol in the Arctic With Russia,” *High North News*, October 4, 2024, accessed December 2, 2025, <https://www.highnorthnews.com/en/chinas-coast-guard-first-patrol-arctic-russia>.

²³ The International Institute for Strategic Studies (IISS), *The Military Balance 2025* (Abingdon, UK: Routledge, 2025).

²⁴ Mathieu Boulègue, Rebecca Pincus, and Madison Lipson, *Protecting the North American Arctic and Beyond: USNORTHCOM’s Role and Place in a Changing Circumpolar Security Environment* (Philadelphia: Foreign Policy Research Institute, November 12, 2025), accessed December 8, 2025, <https://www.fpri.org/article/2025/11/protecting-the-north-american-arctic-and-beyond/>

²⁵ Kamil Kusier, “NATO Exercises Underwater Warfare in the Arctic and Tests ASW Capabilities,” *Daily Mare*, April 29, 2025, accessed December 8, 2025, <https://dailymare.com/news/nato-exercises-underwater-warfare-in-the-arctic-and-tests-asw-capabilities.1309>.

²⁶ National Research Council, *National Security Implications of Climate Change for U.S. Naval Forces* (Washington, DC: National Academies Press, 2011), accessed December 2, 2025, <https://www.nationalacademies.org/projects/DEPS-NSB-09-01/publication/12914>.

²⁷ Jeremy M. McKenzie, “Beyond Icebreakers: The United States Needs a Bold New Approach to Arctic Security Equipping in an Era of Strategic Competition,” *Modern War Institute at West Point*, August 7, 2025, accessed December 8, 2025, <https://mwi.westpoint.edu/beyond-icebreakers-the-united-states-needs-a-bold-new-approach-to-arctic-security-equipping-in-an-era-of-strategic-competition/>.

²⁸ Stephanie Pezard, Irina A. Chindea, Naoko Aoki, Dominique Lumpkin, and Yuliya Shokh, *China’s Economic, Scientific, and Information Activities in the Arctic: Benign Activities or Hidden Agenda?* (Santa Monica, CA: RAND Corporation, 2025), accessed December 8, 2025, https://www.rand.org/pubs/research_reports/RRA2823-1.html

²⁹ U.S. Department of Defense, *2024 Department of Defense Arctic Strategy* (Washington, DC: U.S. Department of Defense, June 21, 2024), accessed December 8, 2025, <https://media.defense.gov/2024/Jul/22/2003507411/-1/-1/0/DOD-ARCTIC-STRATEGY-2024.PDF>.

³⁰ Geoff Ziezulewicz, “US Navy Ships Shadowed Russian-Chinese Flotilla off Alaskan Islands,” *Navy Times*, August 7, 2023, accessed December 8, 2025, <https://www.navytimes.com/news/your-navy/2023/08/07/us-navy-ships-shadowed-russian-chinese-flotilla-off-alaskan-islands/>.

³¹ Al Jazeera, “US Patrol Spots Chinese, Russian Naval Ships off Alaska Island,” September 27, 2022, accessed December 8, 2025, <https://www.aljazeera.com/news/2022/9/27/us-patrol-spots-chinese-russian-naval-ships-off-alaska-island>

³² Thomas Nilsen, “FSB Signs Maritime Security Cooperation with China in Murmansk,” *The Barents Observer*, April 25, 2023, accessed December 8, 2025, <https://www.thebarentsobserver.com/security/fsb-signs-maritime-security-cooperation-with-china-in-murmansk/162966>.

³³ Astri Edvardsen, “China’s Coast Guard on First Patrol in the Arctic With Russia,” *High North News*, October 4, 2024, accessed December 8, 2025, <https://www.highnorthnews.com/en/chinas-coast-guard-first-patrol-arctic-russia>.

³⁴ U.S. Coast Guard, “U.S. Coast Guard Encounters Joint Chinese Coast Guard, Russian Border Guard Patrol in Bering Sea,” press release, October 1, 2024, accessed December 8, 2025, <https://www.news.uscg.mil/Press-Releases/Article/3922625/us-coast-guard-encounters-joint-chinese-coast-guard-russian-border-guard-patrol/>.

³⁵ Ministry of Foreign Affairs of the People’s Republic of China, *The Global Security Initiative: Concept Paper*, (Beijing: MFA of PRC, 2022), 1-4, https://en.chinadiplomacy.org.cn/pdf/The_Global_Security_Initiative_Concept_Paper.pdf.

³⁶ Ministry of Foreign Affairs of the People’s Republic of China, *The Global Security Initiative: Concept Paper*, (Beijing: MFA of PRC, 2022), 2, https://en.chinadiplomacy.org.cn/pdf/The_Global_Security_Initiative_Concept_Paper.pdf.

³⁷ The State Council of the People’s Republic of China, *China’s Arctic Policy*, (gov.cn, 2018), https://web.archive.org/web/20180201020119/http://english.gov.cn/archive/white_paper/2018/01/26/content_281476026660336.htm

³⁸ Ibid.

³⁹ Ibid.

⁴⁰ Kristina Hagnäs and Andreas Østhagen, *A New Era of Arctic Geopolitics* (Washington, DC: German Marshall Fund of the United States, July 2024), <https://www.gmfus.org/sites/default/files/2024-07/A%20New%20Era%20of%20Arctic%20Geopolitics.pdf>.

⁴¹ China Coast Guard, “China Coast Guard, Russian Federal Security Service sign MoU,” China Coast Guard website, May 16, 2024, accessed October 25, 2025, https://www.ccg.gov.cn/mhenu/lbt/202405/t20240516_2230.html.

⁴² Stephen Blank, “Joint Bomber Patrol over the Pacific: The Russo-Chinese Military Alliance in Action,” *Eurasia Daily Monitor*, vol. 16 no. 109 (July 30, 2019), The Jamestown Foundation, <https://jamestown.org/program/joint-bomber-patrol-over-the-pacific-the-russo-chinese-military-alliance-in-action/>

⁴³ Laura Gozzi, “China and Russia Stage First Joint Bomber Patrol near Alaska,” *BBC News*, July 25, 2024, <https://www.bbc.com/news/articles/cz9x22k5qv2o>.

⁴⁴ China Coast Guard, “China Coast Guard, Russian Federal Security Service sign MoU,” China Coast Guard website, May 16, 2024, accessed November 11, 2025, https://www.ccg.gov.cn/mhenu/lbt/202405/t20240516_2230.html

⁴⁵ Malte Humpert, “Russia, China Finalize Deal to Jointly Develop Arctic Shipping Along the Northern Sea Route,” *gCaptain*, October 21, 2025, <https://gcaptain.com/russia-china-finalize-deal-to-jointly-develop-arctic-shipping-along-the-northern-sea-route/>.

⁴⁶ Anders Christoffer Edström, Guðbjörg Ríkey Th. Hauksdóttir, and P. Whitney Lackenbauer, *Cutting Through Narratives on Chinese Arctic Investments* (Cambridge, MA: Belfer Center for Science and International Affairs, June 23, 2025), https://www.belfercenter.org/sites/default/files/2025-07/Edstrom%20Hauksdottir%20Lackenbauer_Chinese%20Arctic%20Investments_20250708.pdf.

⁴⁷ U.S.–China Economic and Security Review Commission, *CCP Decision-Making and Xi Jinping’s Centralization of Authority*, Annual Report to Congress (Washington, D.C.: USCC, November 2022), 25-37, https://www.uscc.gov/sites/default/files/2022-11/Chapter_1--CCP_Dcision-Making_and_Xi_Jinpings_Centralization_of_Authority.pdf