

BACKGROUNDER

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U.S. Policymakers Should Remain Wary of Chinese Ambitions in the Arctic

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KEY TAKEAWAYS

China's expansion into the Arctic directly threatens America's national interests. The U.S. cannot afford to fall behind and must protect its own backyard.

Policymakers should closely monitor China's efforts to expand its economic and political footprint in the Arctic—and prepare accordingly.

The U.S. can secure a peaceful future in the region by exerting its power, defending its national sovereignty, and properly allocating resources. merica's interests in the Arctic region will only increase in the years to come. As other nations devote resources and assets in the region to secure their national interests, America cannot afford to fall behind. The U.S. must champion an agenda that advances the U.S. national interest and devotes the required national resources to the region.

The melting of some Arctic ice during the summer months creates security challenges, but also new opportunities for economic development. Reduced ice means new shipping lanes, increased tourism, and further natural resource exploration. However, it also means a larger military presence by more actors than ever before.

In this era of great-power competition, China is becoming a bigger actor in the Arctic region. With the focus on China's dubious and aggressive claims of

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sovereignty in the South China Sea, its threatening policies towards Taiwan, and its massive infrastructure investments in Central Asia and Africa, it is easy to overlook Beijing's activities in the Arctic.

The U.S. must be able to exert its power and defend its national sovereignty in the region, while respecting the national sovereignty of others. As the U.S. prepares for future challenges in the Arctic, it must factor in China's ambitions in the region. To do so, the U.S. must monitor China's economic and diplomatic activity in the region—especially in the Arctic Council,¹ for which China has observer status—promote economic freedom in the Arctic, deepen its bilateral relations with friendly Arctic countries especially Canada, Greenland, and Iceland—refuse to recognize China's self-proclaimed status as a "near-Arctic state," and continue to highlight China's malign role in the region.

U.S. Arctic Security Interests

The Arctic region, commonly referred to as the High North, is becoming more contested than ever before. The Arctic encompasses the lands and territorial waters of eight countries on three continents.² Unlike the Antarctic, the Arctic has no land mass covering its pole (the North Pole), just ocean. The region is home to some of the roughest terrain and harshest weather on the planet.

The region is also one of the least populated areas in the world, with sparse nomadic communities and few large cities and towns. Regions are often very remote, underpopulated, and lack basic transport infrastructure. When including islands, Alaska has 33,904 miles of shoreline but no deepwater port above the Arctic Circle. In Greenland, no two population centers are connected by a road. Norway's Ny Ålesund, located on the Svalbard archipelago, is the world's most northerly permanently inhabited place with a population of only 35. Although official population figures for the Arctic are non-existent, the Nordic Council of Ministers estimates the figure is four million,³ making the Arctic's population about the size of Los Angeles. Approximately half of the Arctic population lives in Russia. The region is rich in minerals, wildlife, fish, and other natural resources. According to some estimates, up to 13 percent of the world's undiscovered oil reserves, are located in the Arctic.⁴

The U.S. became an Arctic power on October 18, 1867, at the ceremony transferring Alaska from Russia to the United States. At the time this purchase was ridiculed and known as Seward's Folly—named after Secretary of State William Seward. However, with a stroke of a pen, Seward ended Russian influence in North America, gave the United States direct access to the northern Pacific Ocean, and added territory nearly twice the size of Texas for about 2 cents an acre, including 33,000 miles of coastline. In his retirement Seward was asked what his greatest achievement was. He said: "The purchase of Alaska. But it will take another generation to find it out."⁵

Today, the U.S. has four primary security interests in the Arctic region:

- Ensuring the territorial defense of the United States. This is particularly true as it pertains to the growing ballistic missile threat. In this regard, the U.S. relationship with Canada is key. This is also why it is important for the U.S. to deepen its relations with Greenland and Iceland—both serving essentially as the forward-operating bases of the North American continent.
- 2. **Enforcing U.S. sovereignty in the region.** In the Arctic, sovereignty equals security and stability. Respecting the national sovereignty of others in the Arctic while maintaining the ability to enforce one's own sovereignty will ensure that the chances of armed conflict in the region remain low. This is why investment in the U.S. Coast Guard is vital to America's Arctic security interest.
- 3. **Meeting treaty obligations in the Arctic region through the North Atlantic Treaty Organization (NATO).** Five of the world's eight Arctic countries are NATO members. Another two, Finland and Sweden, were invited to join NATO at the June 2022 summit and are expected to be members by the end of the year. Very soon, seven of the eight Arctic countries will be members of NATO, yet the Alliance has no agreed position or policy on its role in the Arctic region. This needs to change.
- 4. Ensuring the free flow of shipping and other economic activities in the region. Economic freedom leads to prosperity and security. With melting ice creating new economic and shipping opportunities in the region, it is in America's interests that shipping lanes remain open in line with international norms.

TEXT BOX 1

The Atlantic Strategy

It is in America's interest to develop a coherent and coordinated strategy for the Atlantic region. While the geopolitical conditions of the Atlantic region may differ from those of the Indo-Pacific, a strategy is needed to mitigate the pernicious activities of the Chinese Communist Party. The aim of a U.S. Atlantic strategy must be to make the Atlantic region resilient against malicious Chinese and Russian influence by expanding regional cooperation, and helping to make U.S. partners secure, sovereign, and prosperous.

The goal of an Atlantic strategy is to create the conditions for a stable, prosperous, and secure Atlantic area that is aligned, or at least sympathetic to, America's vision for the region. The short-term goal of this strategy is to preserve the comfortable geopolitical status quo that the U.S. enjoys. The long-term goal is to roll back the nefarious activities by China, Russia, and adversarial non-state actors seeking more influence in the Atlantic region.

The North Atlantic region, especially the Arctic, forms a critical pillar of any Atlantic strategy. The ecologically fragile and unique High North is home to a wide array of natural resources yet is becoming contested like never before. Expected growth in economic activity, combined with Russian militarization and Chinese efforts to carve out diplomatic, economic, and political beachheads in the region, requires comprehensive, sustained U.S. attention on meeting these challenges.

The U.S. has the means to implement an effective Atlantic strategy. What is also required is the political will.

China's Increasing Role

With the focus on China's activities in the South China Sea, its massive infrastructure investments in Central Asia and Africa, and its threatening policies toward Taiwan, it is easy to overlook another aspect of Beijing's foreign policy: the Arctic.

In the simplest terms, China sees the Arctic region as another place in the world to advance its economic interests and expand its diplomatic influence. As a non-Arctic country, China is mindful that its Arctic ambitions in international Arctic institutions are naturally limited—but this recognition has not stopped Beijing from increasing its economic presence in the region and seeking to develop other inroads.

China's most recent Arctic strategy, published in 2018, offers a useful glimpse into how Beijing views its role in the region.⁶ Running 5,500 words in the English version, the strategy is littered with Arctic buzzwords, such as "common interests of all countries," "law-based governance," "climate change," and "sustainable development." The irony is not lost on observers of the South China Sea where China has shunned international norms to exert dubious claims of sovereignty, or the fact that China is the world's largest emitter of greenhouse gases.

China's Dubious "Near Arctic State" Claim



Even though China's closest point to the Arctic Circle is more than 800 nautical miles away, Beijing refers to itself as a "near-Arctic state"⁷—a term made up by Beijing and not found in the lexicon of Arctic discourse. In fact, extending Beijing's logic to other countries would mean that Belarus, Estonia, Germany, Ireland, Kazakhstan, Latvia, Lithuania, the Netherlands, Poland, and the United Kingdom are also "near-Arctic states." These are hardly the countries that one imagines when thinking about the Arctic. As former Secretary of State Mike Pompeo has said: "There are Arctic states, and non-Arctic states. No third category exists. China claiming otherwise entitles them [sic] to exactly nothing."⁸ Interestingly, Russia's Ambassador at Large for Arctic Cooperation Nikolay Korchunov agreed with this statement, declaring that "it is impossible to disagree with U.S. Secretary of State Michael Pompeo's statement made in May 2019 that there are two groups of countries—Arctic and non-Arctic."⁹

China's latest five-year plan (FYP), for 2021 to 2025, included a commitment to building a polar silk road as well as further activity in both the Arctic and Antarctic.¹⁰ As one analyst notes, "The inclusion of polar regional policies within the new FYP represents a greater acknowledgement of the emerging importance of the two poles to China's expanding foreign policies."¹¹ For a country that prides itself on its rich and long history, China is a relative newcomer to the Arctic region. China's Arctic strategy admits that it "started to participate in addressing the Arctic affairs" only in 1925 when the Republic of China signed and ratified the Svalbard Treaty¹² (formally known as the Spitzbergen Treaty).

China is motivated to become an Arctic actor for five primary reasons:

1. New Shipping Routes. China is unique in modern times in that it is a continental power almost entirely dependent on the sea for its food and energy.¹³ Sea lanes in the Arctic have the potential to play an important role when it comes to diversifying China's import dependencies. In December 2020, China announced plans to launch a satellite in 2022 to monitor Arctic shipping routes.¹⁴

2. Chinese Economic Influence. China sees itself as a global power, and the Arctic is just another region in which to engage. China hopes to complement its Belt and Road Initiative (BRI)—a vast trading network being constructed by China on the Eurasian landmass and beyond—by investing in and constructing major infrastructure projects along the emerging sea lanes in the Arctic.

3. Scientific Research. Whether it is for China's sea-based nuclear deterrent, natural resource extraction, or commercial shipping, the research of polar high-altitude atmospheric physics, glacial oceans, bio-ecology, and meteorological geology are important for China's strategic interests. As a signatory of the Svalbard Treaty, China is allowed to conduct scientific research on Svalbard, one of the world's northernmost inhabited areas, with under 3,000 inhabitants, and has done so since 2004 at its Arctic Yellow River Station located in Ny Ålesund. In total, China has eight scientific research stations in the Arctic.¹⁵ While the Arctic remains an important field of scientific study, especially due to its unique attributes, some of the research China is undertaking, including acoustic study and seabed mapping, could have military applications. The U.S. and its allies have raised this possibility.

4. Laying the Groundwork for Future Military Activity in the Region. Currently, China's military involvement in the Arctic is limited. The People's Liberation Army Navy has never sailed into Arctic waters. However, the director of the Norwegian Intelligence Service, Lieutenant General Morten Haga Lunde, stated recently that "[i]n the long term, we must be prepared for a clearer Chinese presence also in our neighboring areas."¹⁶ The Pentagon recently warned "that China could use its civilian research presence in the Arctic to strengthen its military presence, including by deploying submarines to the region as a deterrent against nuclear

attacks."¹⁷ Chinese journals have explored this possibility, for example, publishing articles with titles such as "Peridynamic Model for Submarine Surfacing through Ice."¹⁸

5. Access to Minerals, Fishing, and Other Natural Resources. China also sees the Arctic region as a well to be plumbed for its resources. The Arctic is rich in rare earth minerals,¹⁹ a key component of a host of products from smartphones to electric batteries, to wind turbines, to key weapons systems. China currently enjoys market dominance in rare earth minerals and wants to keep it this way by accessing those of the Arctic. China also views the region as a solution to its food demands, thinking the dietary needs of its growing population could partially be met by increased fish products from the Arctic region.²⁰ China is heavily reliant upon energy imports, some of which transit waterways that China deems vulnerable. Russia is an energy-rich nation happy to sell to China; in 2021 alone, Russia supplied China with 16.5 billion cubic meters (bcm) of natural gas.²¹ Russia's invasion of Ukraine and subsequent Western sanctions have diminished Russian energy exports to the West, particularly oil exports.

China has stepped in, eagerly buying Russian oil at a discount, a decision exemplified by Russia overtaking Saudi Arabia as the largest supplier of oil to China in May.²² A portion of the source of Russian energy exports to China is Arctic liquified natural gas (LNG). China is a significant investor in Russia's Yamal LNG project. China National Petroleum Corporation owns a 20 percent stake in the project, while China's Silk Road Fund has a 9.9 percent stake.²³ Beijing received the first ship of Yamal LNG in July 2018.²⁴ Chinese firms are currently helping to build²⁵ the nearby Arctic 2 LNG project. Arctic 2 LNG will consist of three liquification trains set to begin operation in 2023, 2024, and 2025, respectively.²⁶ China National Offshore Oil Corporation and the China National Petroleum Corporation each own a 10 percent stake in the Arctic 2 LNG project.²⁷ In January, Russia's Novatek signed separate agreements with China's Zhejiang Energy and ENN Natural Gas for long-term LNG contracts from Arctic 2 LNG.28 The importance of Arctic LNG to China derives from its relative closeness and the fact that is does not need to transit maritime chokepoints like the Strait of Malacca. In October 2021, China imported what has been described as an "emergency shipment of LNG" from Russia when faced with imminent gas shortages.²⁹

Below the Arctic circle, Russo–Sino energy ties have extended to overland energy connections. In December 2019, the 1,400-mile-long Power of Siberia Natural Gas Pipeline began operations.³⁰ The pipeline was the first to bring Russian gas to China. Under the terms of a 2014 30-year contract, Russia will provide 38 bcm of gas to China via the pipeline by 2025.³¹This February, China and Russia agreed on a contract for Gazprom to supply the China National Petroleum Corporation with a further 10 bcm of gas yearly for 30 years via another yet-to-be-built pipeline from Russia's Sakhalin Island to Heilongjiang province in China under the Sea of Japan. The pipeline, projected to begin operations in two to three years' time, will pump 10 bcm a year by 2026.³² That this latest Chinese–Russian agreement is a stipulated settlement in euros exemplifies the desire of both nations to lessen reliance on U.S. financial mechanisms, underscored by U.S.-led efforts to sanction Russia over its second invasion of Ukraine.

For now, China's primary motivation in the Arctic is economic. In its Arctic strategy, China also coined the term "polar silk road." The strategy document states:

China hopes to work with all parties to build a "Polar Silk Road" through developing the Arctic shipping routes. It encourages its enterprises to participate in the infrastructure construction for these routes and conduct commercial trial voyages in accordance with the law to pave the way for their commercial and regularized operation. China attaches great importance to navigation security in the Arctic shipping routes. It has actively conducted studies on these routes and continuously strengthened hydrographic surveys with the aim to improving the navigation, security and logistical capacities in the Arctic. China abides by the International Code for Ships Operating in Polar Waters (Polar Code), and supports the International Maritime Organization in playing an active role in formulating navigational rules for the Arctic. China calls for stronger international cooperation on infrastructure construction and operation of the Arctic routes.³³

The goal of the polar silk road is to complement China's BRI—a vast trading network being constructed by China on the Eurasian landmass and beyond—by investing in and constructing major infrastructure projects along the emerging sea lanes in the Arctic.³⁴

So, it is no surprise that the Chinese have taken great interest in the North Sea Route (NSR). In 2012, the Ukrainian-built Chinese icebreaker *Xue Long* (Snow Dragon, in English) became the first Chinese vessel to sail the NSR to the Barents Sea and has since carried out nine Arctic expeditions. A second icebreaker, the diesel-powered *Xue Long* 2 (Snow Dragon 2), which launched in September 2018 and was built in China,³⁵ embarked upon its second Arctic voyage, sailing 15,000 nautical miles across three and a half months.³⁶ According to reports, the Snow Dragon 2 sailed across the North Pole and explored "the Gakkel Ridge in order

to learn about the formation of rocks and magma and the geomorphic features there."³⁷ In addition, "[t]he researchers on board are reported to [have] engage[d] in monitoring of sea and sea-ice, atmosphere, microplastics and ocean acidification in the high seas of the Arctic, and [to have] carr[ied] out navigation observation, cross-sectional survey and satellite remote sensing."³⁸ The latest FYP describes these missions as "entering a 'second phase,' with calls for a 'three-dimensional' monitoring platform to be developed as well."³⁹

China is also in the process of building its first nuclear-powered icebreaker. According to media reports, when finished, the new icebreaker will displace 30,000 tons of water⁴⁰—a massive icebreaker bigger than the sole aircraft carrier used by Italy.⁴¹ Details of the proposed project contained within a recent Chinese policy note leave open the possibility for additional nuclear-powered icebreakers being built in the future: "A key aspect is the request to standardize and serialize the design of heavy icebreakers, hinting at the possibility that China intends to build several vessels of the same type following an approach long-practiced by Russia."⁴² China has also expressed interest in building a "100,000-ton semi-submersible heavy lift vessel," for use in the Arctic.⁴³

It is not just shipping that has excited China in the Arctic. Like it does across the countries spanning the BRI, China is funding and building major infrastructure projects to improve transportation and energy production. And, just like the BRI, this is all first and foremost for the benefit of Beijing.

China is also getting more involved in NATO's front yard. China has had its eyes on investing in Greenland and Iceland. However, recently China has faced setbacks in Greenland. In November 2021, Greenland stripped the Chinese firm General Nice of its license to an iron ore deposit at the Isua mine near Nuuk, due to inactivity.⁴⁴ General Nice took over the mine in 2015 becoming the first Chinese firm to gain a license in Greenland to mine minerals. Greenland has "requested that all geological data is returned, remaining payments of 1.5 million Danish crowns are deposited, and the mining area is cleaned up."⁴⁵

That same month, Greenland's parliament passed legislation which bans uranium mining and halts work at the Kuannersuit mine, which contains both rare earth metals and uranium and is majority-owned by Australian mining firm Greenland Minerals.⁴⁶ A Chinese state-owned company has a 12 percent stake in the mine.⁴⁷ In March, the mine owners launched legal proceedings against the Danish and Greenlandic governments asserting that the new legislation does not affect existing licenses, such as that for the Kuannersuit mine.⁴⁸ Denmark's intelligence service notes the threat of China (and Russia) seeking to drive a wedge between Denmark and Greenland and between Greenland and the U.S. According to a recent report by the service, "The Danish Realm is particularly vulnerable to any exploitation by Chinese or Russian intelligence services of controversial issues to create tension in or between the three parts of the Danish Realm or to complicate relations with allies, especially the USA."⁴⁹

Underscoring the importance that China places on its presence in Iceland, the Chinese embassy in Reykjavik can accommodate a staff of up to 500 people. The U.S. embassy by comparison has about 70 people. In 2013, tiny Iceland, with a population of slightly more than 330,000 people (the size of a small Chinese town), became the first European country to sign a free trade agreement with China. However, Iceland has so far refused to formally join China's BRI.⁵⁰

Thus far, China's motivation in the Arctic seems to be more about economics and less about security. But considering the economic mess and massive debt that China has left in places like Sri Lanka and Djibouti, it is prudent to question China's motivations in the Arctic.

China seeks to parlay its growing partnership with Russia, on which Russia will necessarily rely as the West cuts ties, as a way to access Arctic influence. A February 4 joint statement between Vladimir Putin and Xi Jinping agreed "to continue consistently intensifying practical cooperation for the sustainable development of the Arctic."⁵¹ The statement also stressed that "[f]riendship between the two States has no limits, there are no 'forbidden' areas of cooperation."⁵² However, whether the rhetoric translates into reality is another matter. The Arctic is one of the few areas where Russia retains the upper hand in its dealings with China, and despite the need for Chinese investment and economic symbiosis in the Arctic, Russia is wary of allowing China undue access to a region it deems critical to national security.

For the most part, China wants to increase access and influence in the Arctic region for economic reasons and it is through this lens that U.S. policymakers should approach Chinese activity in the Arctic region.

What the U.S. Should Do

China is expanding its economic influence across much of the world and the Arctic region is no exception. As new economic opportunities and security challenges continue to manifest themselves in the Arctic, the U.S. must be prepared. The U.S. government should:

- **Promote economic freedom in the Arctic.** Economic freedom spurs prosperity, innovation, respect for the rule of law, jobs, and sustainability. Most important, economic freedom can help to keep the Arctic stable and secure. A secure and stable Arctic should be the focal point of broader U.S. engagement in the region.
- Continue to invest in the U.S. Coast Guard's and U.S. Navy's Arctic situational awareness capabilities. It is imperative that the Coast Guard continue to expand its fleet and acquire a fleet of six icebreakers through the Polar Security Cutter and Arctic Security Cutter programs to assure access to this remote region.⁵³ The remote and harsh conditions of the Arctic make unmanned systems particularly appealing for providing additional situational awareness, intelligence, surveillance, and reconnaissance. The Coast Guard should also consider upgrading facilities, such as its Barrow station, to reinforce its Arctic capabilities and demonstrate a greater commitment to the region.
- **Deepen relations with Iceland.** Iceland is an important NATO member and a close partner in the Arctic Council. The Trump Administration ended diplomatic sanctions applied to Reykjavik by the Obama Administration over Iceland's whaling.⁵⁴ The U.S. should use this new opportunity for partnership to advance American interests in the Arctic.
- **Continue to raise awareness of China's questionable ambitions.** China has declared itself a "near-Arctic state"—a made-up term that does not exist in Arctic discourse. The U.S. should work with likeminded partners in the Arctic Council to raise legitimate concerns about China's so-called polar silk road ambitions. The U.S. should also make sure that China does not try to exceed what is allowed by its status as an observer in the Arctic Council.
- Acknowledge NATO's role in the Arctic for the first time. It is time that NATO acknowledges that it is, in part, an Arctic alliance. The Alliance's new strategic concept adopted in June failed to mention the word "Arctic," with the region "High North" mentioned only in terms of its importance for sending reinforcements to Europe in the case of a broad conflict with Russia. NATO should rectify this glaring oversight by recognizing the importance of the region as key theater, especially after the likely accession of Finland and Sweden.

- Make the U.S. diplomatic presence in Greenland full time. The opening of a part-time U.S. consulate in Nuuk is welcome. A formal diplomatic presence would be an effective way for the U.S. to better understand local political and economic dynamics. This is particularity important at a time when other global actors, such as China, are becoming more involved in the Arctic region. But the U.S. should follow Iceland's lead and make its diplomatic presence in Greenland year-round.
- Explore ways of increasing economic links between Greenland and the U.S. Greenland is actively trying to attract foreign investments, diversify its economy, and more closely integrate into the world economy. Greenland wants to raise the standard of living and prepare for eventual independence from Denmark. With Greenland located in North America, and with new potential transport links and tourism opportunities, the U.S. should pursue policies that develop economic ties between the two countries.
- **Consider the use of Svalbard for any required scientific needs.** Due to its location in the Arctic region and its particular environmental conditions, Svalbard is very attractive for scientific research. In the past, the U.S. Department of Defense has conducted research there,⁵⁵ and it should consider doing so in the future if the need arises. This is an excellent way for the U.S. to "fly the flag" in a region with significant geopolitical importance.

Conclusion

America's interests in the Arctic region will only increase in the years to come. As other nations devote resources and assets in the region to secure their national interests, America cannot afford to fall behind. With China increasing its presence in the Arctic, the U.S. needs to champion an agenda that advances the U.S. national interest and devotes the required national resources to the region. These measures are not preparations for armed conflict. They are preparations for a peaceful future. With the Arctic becoming increasingly important economically and geopolitically, now is not the time for the U.S. to turn away from this strategic location in its neighborhood.

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Endnotes

- As an Observer of the Arctic Council, China's role is relegated to attending and observing meetings, proposing projects through the Arctic States or Permanent Representatives, and, if invited, submitting statements to meetings on issues being discussed. However, as the Arctic Council makes clear, "Decisions at all levels in the Arctic Council are the exclusive right and responsibility of the eight Arctic States with the involvement of the Permanent Participants." See Arctic Council, "Arctic Council Observers," https://www.arctic-council.org/about/observers/#:-:text=Role%20of%20Arctic%20 Council%20observers&text=Observers%20may%20propose%20projects%20through,otherwise%20decided%20by%20the%20SAOs (accessed July 12, 2022). However, Chinese officials have made clear that their preference is for global governance structures to play a role in the Arctic, as well as for a greater voice for non-Arctic nations in the Arctic Council, in an attempt to claim some lever of influence in the High North. See P. Whitney Lackenbauer et al., *China's Arctic Ambitions and What They Mean for Canada* (Calgary: University of Calgary Press, 2018), p. 133, https://press.ucalgary.ca/books /9781552389010/ (accessed July 12, 2022).
- 2. The U.S., Canada, Denmark (Greenland), Finland, Iceland, Norway, Russia, and Sweden.
- Nordic Council of Ministers, "Arctic Social Indicators," 2010, p. 13, http://library.arcticportal.org/712/1/Arctic_Social_Indicators_NCoM.pdf (accessed May 5, 2022).
- 4. Kenneth J. Bird et al., "Circum-Arctic Resource Appraisal: Estimates of Undiscovered Oil and Gas North of the Arctic Circle," U.S. Geological Survey, July 23, 2008, http://pubs.usgs.gov/fs/2008/3049/ (accessed May 5, 2022).
- 5. Frederick W. Seward, "Seward's Folly: A Son's View," *University of Rochester Library Bulletin* (Spring 1967), https://rbscp.lib.rochester.edu/487 (accessed May 5, 2022).
- 6. The State Council Information Office of the People's Republic of China, "China's Arctic Policy," White Paper, January 26, 2018, http://english.www.gov .cn/archive/white_paper/2018/01/26/content_281476026660336.htm (accessed May 5, 2022).
- 7. Ibid.
- Radio Canada International, "US Stuns Audience by Tongue-Lashing China, Russia on Eve of Arctic Council Ministerial," May 6, 2019, https:// thebarentsobserver.com/en/arctic/2019/05/us-stuns-audience-tongue-lashing-china-russia-eve-arctic-council-ministerial (accessed May 5, 2022).
- 9. Elizabeth Wishnick, "Will Russia Put China's Arctic Ambitions on Ice?" *The Diplomat*, June 5, 2021, https://thediplomat.com/2021/06/will-russia-put -chinas-arctic-ambitions-on-ice/ (accessed February 17, 2022).
- 10. Marc Lanteigne, "The Polar Policies in China's New Five-Year Plan," *The Diplomat*, March 12, 2021, https://thediplomat.com/2021/03/the-polar-policies -in-chinas-new-five-year-plan/ (accessed May 6, 2022).
- 11. Ibid.
- 12. "Treaty Between Norway, the United States of America, Denmark, France, Italy, Japan, the Netherlands, Great Britain and Ireland and the British Overseas Dominions and Sweden Concerning Spitsbergen Signed in Paris 9th February 1920," http://library.arcticportal.org/1909/1/The_Svalbard _Treaty_9ssFy.pdf (accessed July 12, 2022).
- 13. Dean Cheng, "The Importance of Maritime Domain Awareness for the Indo–Pacific Quad Countries," Heritage Foundation *Backgrounder* No. 3392, March 6, 2019, https://www.heritage.org/global-politics/report/the-importance-maritime-domain-awareness-the-indo-pacific-quad-countries.
- 14. Malte Humpert, "China to Launch Satellite to Monitor Arctic Shipping Routes," *High North News*, December 8, 2020, https://www.highnorthnews.com /en/china-launch-satellite-monitor-arctic-shipping-routes (accessed February 18, 2022).
- 15. Xian Jiangnan and Liang Jun, "China's First North Pole Station Begins Expedition," *People's Daily Online*, May 27, 2019, http://en.people.cn/n3/2019 /0527/c90000-9581728.html (accessed July 11, 2022).
- 16. Thomas Nilsen, "We Must Be Prepared for Clearer Chinese Presence in Our Neighborhood," *The Barents Observer*, February 11, 2019, https:// thebarentsobserver.com/en/security/2019/02/norwegian-intelligence-service-we-must-be-prepared-clearer-chinese-presence-out (accessed May 5, 2022).
- 17. Phil Stewart and Idrees Ali, "Pentagon Warns on Risk of Chinese Submarines in Artic," Reuters, May 2, 2019, https://www.reuters.com/article/us-usa -china-military-arctic/pentagon-warns-on-risk-of-chinese-submarines-in-arctic-idUSKCNIS829H (accessed May 5, 2022).
- 18. Lyle J. Goldstein, "China's Nuclear Icebreakers Should Send a Chill Down Your Spine," *National Interest*, May 19, 2021, https://nationalinterest.org/blog /reboot/chinas-nuclear-icebreakers-should-send-chill-down-your-spine-185511 (accessed July 11, 2022).
- 19. "Arctic Melt: The Race for Resources," DW, April 21, 2020, https://www.dw.com/en/arctic-melt-the-race-for-resources/av-48168376 (accessed July 7, 2022).
- 20. Lyle J. Goldstein, "What Does China Want with the Artic?" *The National Interest*, September 7, 2019, https://nationalinterest.org/feature/what-does -china-want-arctic-78731 (accessed May 5, 2022).
- "Putin Hails China Oil and Gas Deals Amid Tensions with Europe," *AlJazeera*, February 4, 2022, https://www.aljazeera.com/economy/2022/2/4/china -and-russia-boost-energy-alliance-with-30-year-gas-contract#:-:text=Power%20of%20Siberia,-Russia%20already%20sends&text=It%20exported%20 16.5%20billion%20cubic,points%20of%20tension%20with%20Moscow (accessed February 16, 2022).

- 22. Chen Aizhu, "China May Oil Imports from Russia Soar to a Record, Surpass Top Supplier Saudi," Reuters, July 6, 2022, https://www.reuters.com /markets/commodities/chinas-may-oil-imports-russia-soar-55-record-surpass-saudi-supply-2022-06-20/ (accessed July 7, 2022).
- 23. "Russia's Novatek Completes Deal to Sell Yamal LNG Stake to China's Silk Road," Reuters, March 15, 2016, https://www.reuters.com/article/russia -novatek-china-yamal-idAFR4N0ZC01H (accessed February 16, 2022).
- 24. "Yamal LNG Project Reaches Full Production Capacity," Xinhuanet, December 12, 2018, http://www.xinhuanet.com/english/2018-12/12/c_137666821 .htm (accessed May 5, 2022).
- 25. "First Arctic LNG 2 Modules Leave Chinese Yard," LNG Prime, August 26, 2021, https://lngprime.com/asia/first-arctic-lng-2-modules-leave-chinese -yard/27441/ (accessed February 16, 2022).
- 26. "Novatek Finalises More Deals for Arctic LNG 2," Argus Media, January 11, 2022, https://www.argusmedia.com/en/news/2290589-novatek-finalises -more-deals-for-arctic-Ing-2 (accessed February 16, 2022).
- 27. Therese Robinson, "Novatek Inks Two More Supply Deals for Arctic LNG 2 Offtake," Natural Gas Intelligence, January 12, 2022, https://www .naturalgasintel.com/novatek-inks-two-more-supply-deals-for-arctic-Ing-2-offtake/ (accessed February 16, 2022).
- 28. "Novatek Finalises More Deals for Arctic LNG 2," Argus Media.
- 29. Malte Humpert, "Facing Shortage of Natural Gas China Receives Emergency Shipment of LNG from Russian Arctic," *High North News*, November 3, 2021, https://www.highnorthnews.com/en/facing-shortage-natural-gas-china-receives-emergency-shipment-Ing-russian-arctic (accessed February 16, 2022).
- 30. Congressional Research Service, "Power of Siberia: A Natural Gas Pipeline Brings Russia and China Closer," April 21, 2020, p. 1, https://crsreports .congress.gov/product/pdf/IF/IF11514 (accessed February 16, 2022).
- 31. "Russia Signs 30-Year Gas Deal with China," BBC, May 21, 2014, https://www.bbc.com/news/business-27503017 (accessed February 16, 2022).
- 32. Chen Aizhu, "Russia, China Agree 30-Year Gas Deal via New Pipeline, to Settle in Euros," Reuters, February 4, 2022, https://www.reuters.com/world /asia-pacific/exclusive-russia-china-agree-30-year-gas-deal-using-new-pipeline-source-2022-02-04/ (accessed February 16, 2022).
- 33. The State Council Information Office of the People's Republic of China, "China's Arctic Policy," White Paper, http://english.www.gov.cn/archive/white _paper/2018/01/26/content_281476026660336.htm (accessed July 11, 2022).
- 34. For a comprehensive overview of China's BRI, see Jeff Smith, "China's Belt and Road Initiative: Strategic Implications and International Opposition," Heritage Foundation Backgrounder No. 3331, August 9, 2018, https://www.heritage.org/asia/report/chinas-belt-and-road-initiative-strategic -implications-and-international-opposition.
- 35. Goldstein, "China's Nuclear Icebreakers Should Send a Chill Down Your Spine."
- 36. Atle Staalesen, "Chinese Icebreaker Sails to North Pole, Explores Remote Arctic ridge," *Arctic Today*, August 12, 2021, https://www.arctictoday.com /chinese-icebreaker-sails-to-north-pole-explores-remote-arctic-ridge/ (accessed February 18, 2022).
- 37. Ibid.
- 38. Ibid.
- 39. Lanteigne, "The Polar Policies in China's New Five-Year Plan."
- 40. Thomas Nilsen, "Details of China's Nuclear-Powered Icebreaker Revealed," *The Barent Observer*, March 21, 2019, https://thebarentsobserver.com/en /arctic/2019/03/details-chinas-nuclear-powered-icebreaker-revealed (accessed May 5, 2022).
- 41. The aircraft carrier *Cavour*, the flagship of the Italian Navy, displaces 27,100 tons.
- 42. Malte Humpert, "China to Build New Heavy Icebreaker and Lift Vessel for Arctic," *High North News*, November 16, 2021, https://www.highnorthnews .com/en/china-build-new-heavy-icebreaker-and-lift-vessel-arctic (accessed February 18, 2022).
- 43. Polina Leganger Bronder, "China to Build Its Third Icebreaker," *The Barents Observer*, December 10, 2021, https://thebarentsobserver.com/en/arctic /2021/12/china-build-its-third-arctic-icebreaker (accessed February 18, 2022).
- 44. "Greenland Strips Chinese Mining Firm of Licence to Iron Ore deposit," Reuters, November 22, 2021, https://www.reuters.com/markets/commodities /greenland-strips-chinese-mining-firm-licence-iron-ore-deposit-2021-11-22/ (accessed May 6, 2022).
- 45. Ibid.
- 46. "Greenland Bans Uranium Mining, Halting Rare Earths Project," Reuters, November 10, 2021, https://www.reuters.com/world/americas/greenland -bans-uranium-mining-halting-rare-earths-project-2021-11-10/ (accessed May 6, 2022).
- 47. Jackie Northam, "Greenland Is Not for Sale. But It Has Rare Earth Minerals America Wants," NPR, November 24, 2019, https://www.npr.org/2019/11/24 /781598549/greenland-is-not-for-sale-but-it-has-the-rare-earth-minerals-america-wants (accessed May 6, 2022).
- 48. Esmarie lannucci, "GGG Launches Legal Battle Over Kvanefjeld," *Mining Weekly*, March 23, 2022, https://www.miningweekly.com/article/ggg -launches-legal-battle-over-kvanefjeld-2022-03-23 (accessed May 6, 2022).
- 49. Morten Buttler, "Danish Spy Agency Frets Over Arctic Operations by China and Russia," Bloomberg, January 13, 2022, https://www.bloomberg.com /news/articles/2022-01-13/danish-spy-agency-frets-over-arctic-operations-by-china-russia (accessed July 12, 2022).

- (accessed May 5, 2022). 51. "Russia and China to Deepen Cooperation in the Arctic," *The Barents Observer*, February 4, 2022, https://thebarentsobserver.com/en/arctic/2022/02
- 51. "Russia and China to Deepen Cooperation in the Arctic," *The Barents Observer*, February 4, 2022, https://thebarentsobserver.com/en/arctic/2022/02 /russia-and-china-deepen-cooperation-arctic (accessed February 16, 2022).
- 52. Ibid.
- 53. James Di Pane, "The Coast Guard Needs Six New Icebreakers to Protect U.S. Interests in the Arctic and Antarctic," Heritage Foundation *Issue Brief* No. 4834, April 9, 2018, https://www.heritage.org/defense/report/the-coast-guard-needs-six-new-icebreakers-protect-us-interests-the-arctic-and.
- 54. Iceland is currently one of only three nations (alongside Japan and Norway) which allow commercial whaling. However, Iceland has announced an intention to end whaling by 2024. Despite its continued legality, the practice of whaling in Iceland is thankfully already nearly defunct due to low demand, as of February, only one whale had been killed over the past three years by Icelandic whalers. "Iceland announces plan to end whaling in 2024," *DW*, February 4, 2022, https://www.dw.com/en/iceland-announces-plan-to-end-whaling-in-2024/a-60666862 (accessed July 27, 2022).
- 55. National Science Foundation, "Department of Defense," 1998, https://nsf.gov/pubs/1998/nsf98150/dod.htm (accessed May 5, 2022).