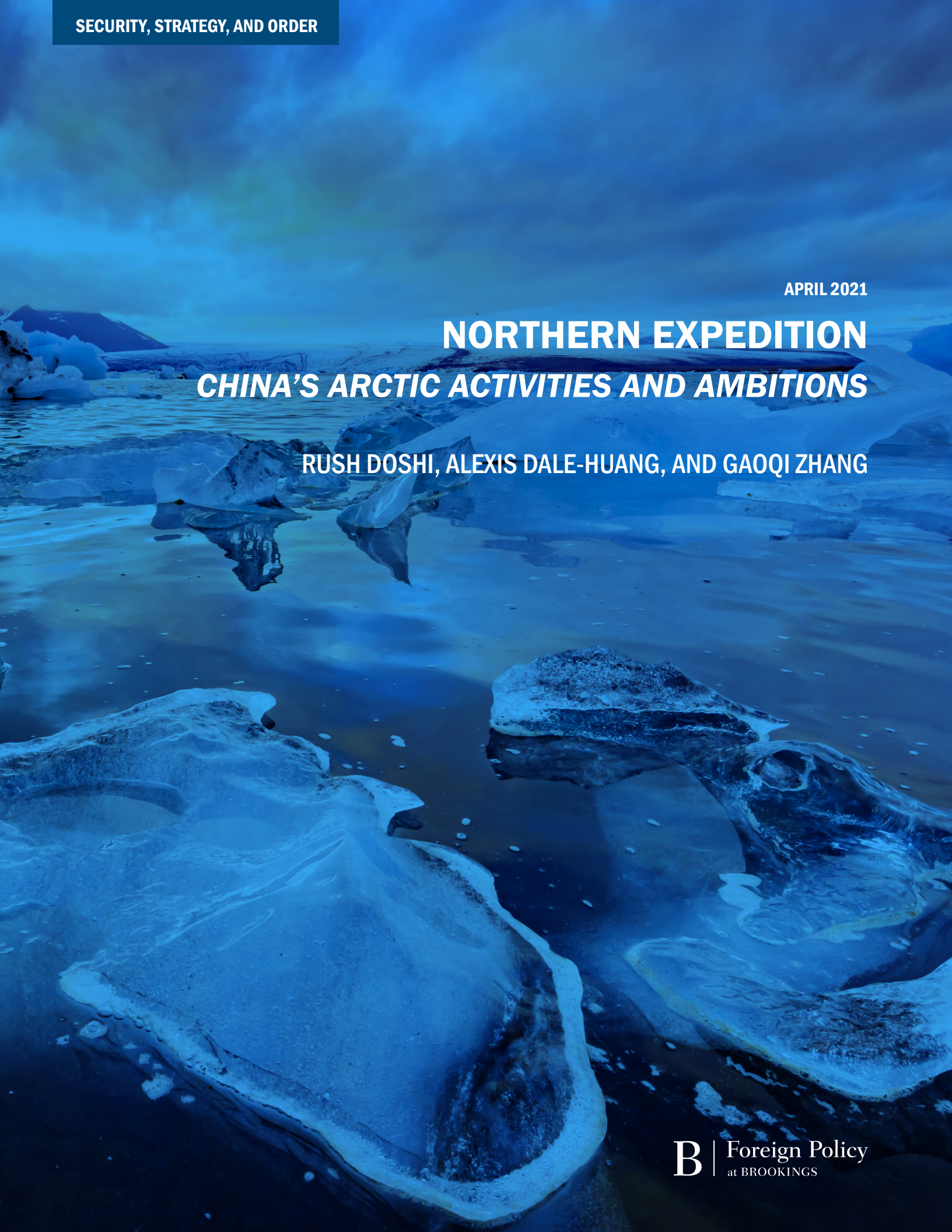

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NORTHERN EXPEDITION

CHINA'S ARCTIC ACTIVITIES AND AMBITIONS

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B | Foreign Policy at BROOKINGS

CONTENTS

EXECUTIVE SUMMARY – TWELVE TAKEAWAYS

This report explores China's internal discourse on the Arctic as well as its activities and ambitions across the region. It finds that that China sometimes speaks with two voices on the Arctic: an external one aimed at foreign audiences and a more cynical internal one emphasizing competition and Beijing's Arctic ambitions. In examining China's political, military, scientific, and economic activity — as well as its coercion of Arctic states — the report also demonstrates the seriousness of China's aspirations to become a "polar great power."[1] China has sent high-level figures to the region 33 times in the past two decades, engaged or joined most major Arctic institutions, sought a half dozen scientific facilities in Arctic states, pursued a range of plausibly dual-use economic projects, expanded its icebreaker fleet, and even sent its naval vessels into the region. The eight Arctic sovereign states — Canada, Denmark, Finland, Iceland, Norway, Russia, Sweden, and the United States — exercise great influence over the Arctic and its strategically valuable geography. China aspires to be among them.

1. **China seeks to become a "polar great power" but downplays this goal publicly.** Speeches by President Xi Jinping and senior Chinese officials with responsibility for Arctic policy are clear that building China into a "polar great power" by 2030 is China's top polar goal. Despite the prominence of this goal in these texts, China's externally facing documents — including its white papers — rarely if ever mention it, suggesting a desire to calibrate external perceptions about its Arctic ambitions, particularly as its Arctic activities become the focus of greater international attention.

2. **China describes the Arctic as one of the world's "new strategic frontiers," ripe for rivalry and extraction.**[2] China sees the Arctic — along with the Antarctic, the seabed, and space — as ungoverned or undergoverned spaces. While some of its external discourse emphasizes the need to constrain competition in these domains, several others take a more cynical view, emphasizing the need to prepare for competition within them and over their resources. A head of the Polar Research Institute for China, for example, called these kinds of public spaces the "most competitive resource treasures," China's National Security Law creates the legal capability to protect China's rights across them, and top Chinese Communist Party (CCP) officials have suggested China's share of these resources should be equal to its share of the global population.[3]

3. **Chinese military texts treat the Arctic as a zone of future military competition.** Although several externally facing Chinese texts downplay the risk of military competition in the Arctic, which would likely be harmful to Chinese goals, military texts take the opposite perspective. They note that, "the game of great powers" will "increasingly focus on the struggle over and control of global public spaces" like the Arctic and Antarctic and argue that China "cannot rule out the possibility of using force" in this coming "scramble for new strategic spaces."[4] Chinese diplomats describe the region as the "new commanding heights" for global military competition too while scholars suggest controlling it allows one to obtain the "three continents and two oceans' geographical advantage" over the Northern Hemisphere.[5]

4. **Chinese texts make clear that its investments in Arctic science are intended to buttress its Arctic influence and strategic position.** Although externally facing messaging indicates China's desire to pursue scientific research for its

own benefit and for global welfare, China's top scientific figures and high-level CCP members are clear that science is also motivated by a drive for "the right to speak," for cultivating China's "identity" as an Arctic state, and for securing resources and strategic access.[6] China's polar expeditions and various research stations assist Beijing with its resource extraction, with Arctic access, and with acquiring experience operating in the Arctic climate.

5. **China supports existing Arctic governance mechanisms publicly but complains about them privately.** Several Chinese texts indicate frustration with Arctic mechanisms and concern that the country will be excluded from the region's resources. Official texts suggest gently that the region's importance now transcends "its original inter-Arctic States," while scholars once feared Arctic states would launch an admittedly unlikely "eight-state polar region alliance" or institutionalize the Arctic Council in ways that "strengthen their dominant position" at China's expense.[7] These texts stress China's pursuit of "identity diplomacy," namely, terming China a "near-Arctic State" because it is affected by climate change.[8] They also indicate an interest in pushing alternative Chinese governance concepts — in some cases to supplement and other cases to run outside the Arctic Council — including a "Polar Silk Road" and China's "community with a shared future for mankind," though specifics are often lacking.[9]

6. **Accommodating China's Arctic ambitions rarely produces enduring goodwill.** Norway was the first country to allow China to build an Arctic science station and Sweden was the first worldwide to allow China to build its own completely China-owned satellite facility. Both these efforts, which were richly praised by China at the time, did not protect either country from later economic coercion and harsh condemnation by China. In both cases, China punished these countries not only for the actions of their governments but also for the independent actions of their civil societies, which were to award Chinese dissident Liu Xiaobo the Nobel Peace Prize and to investigate China's kidnapping of Swedish citizen Gui Minhai. Efforts by both Norway and Sweden to reverse the slide — with Sweden keeping relatively quiet about the rendition of its citizen and Norway vigorously backing China's pursuit of Arctic Council observer status — were only met with restrictions on Norwegian fish exports and colorful threats of coercion against Sweden.

7. **Arctic dependence on trade with China is often overstated, and trade flows are smaller than with other powers.** Chinese economic statecraft is feared by some in the Arctic and around the world, but the region's dependence on China is remarkably small. For the five smallest Arctic economies — Sweden, Norway, Denmark, Finland, and Iceland — China accounts for an average of only 4.0% of their exports, *l*ess than the United States (6.2%) and *far l*ess than the NATO and EU economies excluding the United States (70.3%).[10]

8. **China has invested significantly in Arctic diplomacy to boost its regional influence.** China has sent high-level figures — at the levels of president, premier, vice president, foreign minister, and defense minister — to visit Arctic countries other than the United States and Russia 33 times over the last 20 years. Beijing lobbied heavily to become an Arctic Council observer, became a strong presence at many other regional Track II fora, and launched its own diplomatic and Track II regional efforts, including a China-Russia Arctic Forum and the China-Nordic Arctic Research Center, to deepen relations with governments and sub-national actors.

9. **China's military profile in the Arctic has increased, and its scientific efforts provide strategic advantages too.** China has dispatched naval vessels to the Arctic on two occasions, including to Alaska and later to Denmark, Sweden, and Finland for goodwill visits. It has built its first indigenously produced icebreaker, has plans for more conventional heavy icebreakers, and is considering investments in nuclear-powered icebreakers too.

10. **China's scientific activities in the Arctic give it greater operational experience and access.** China has sent 10 scientific expeditions into the region on its *Xuelong* icebreaker, generally with more than 100 crew members, that officials acknowledge give it useful operational and navigational experience. China has also established science and satellite facilities in Norway, Iceland, and Sweden while pursuing additional facilities in Canada and Greenland — with its facility in Norway able to berth more than two dozen individuals and provide resupply. Finally, China has used the Arctic as a testing ground for new capabilities whether related to satellites coverage, fixed-wing aircraft, autonomous underwater gliders, buoys, and even an "unmanned ice station" configured for research.

11. **China's infrastructure investments in the Arctic sometimes appear dual-use.** Several Chinese infrastructure projects that have little economic gain have raised concerns about strategic motivations and dual-use capabilities. These include efforts by a former Chinese propaganda official to purchase 250 square kilometers of Iceland to build a golf course and airfield in an area where golf cannot be played and later to buy 200 square kilometers of Norway's Svalbard archipelago. Chinese companies have also sought to purchase an old naval base in Greenland; to build three airports in Greenland; to build Scandinavia's largest port in Sweden; to acquire (successfully) a Swedish submarine base; to link Finland and the wider Arctic to China through rail; and to do the same with a major port and railway in Arkhangelsk in Russia.

12. **China's commodity investments in the Arctic have a mixed track record.** Despite some important successes, a large number of Chinese investments have failed. For example, a major Chinese firm abandoned a Canadian zinc mine, refused to pay creditors, and left local governments to pay to clean up an environmental disaster. Another firm disappointed in its investment later sued, saying it had overpaid. In Greenland, a Chinese conglomerate abandoned its iron mine after running into legal trouble in China. In Iceland, a Chinese company withdrew from an Arctic exploration partnership due to poor initial resource estimates.

I. INTRODUCTION

In 2010, on the sidelines of a major Chinese political conclave often referred to as the "Two Sessions," retired Chinese naval Rear Admiral Yin Zhuo made a remarkably candid set of statements about China's Arctic ambitions.

"I have said on many occasions that China's population accounts for one-fifth of the world's population, so can't we get a fifth of the interests in the Antarctic and Arctic?" Yin asked. After all, "this is the common heritage of mankind, so everyone has a share," he explained, citing a concept in international law applied to various parts of the global commons, including Antarctica, the moon, and the deep seafloor. In Yin's imagination, China's share would be lucrative. The Arctic and the Antarctic are "very rich in various resources" and their "sea lanes will also be important in the future." To claim these interests, Yin warned, China would have to struggle hard: "if you do not defend it, do not fight for it, then you have no say… We cannot leave it all to others; the Chinese people have rights there."[11]

Yin Zhuo's belief that China has "rights" to perhaps one-fifth of the Arctic could be dismissed as the remarks of one of China's retired military hawks who are known to sometimes overstep their bounds. But Yin Zhuo — the son of a Long March veteran and high-ranking military political commissar — made these comments as a member of the Chinese People's Political Consultative Conference which was meeting as part of the "Two Sessions." His comments were part of an interview with state media, one that — even today — is published on one of the main websites of China's State Council Information Office. Even if Yin overstepped his bounds, his views on the Arctic also find expression in Chinese texts.

> **China sometimes speaks with two voices on the Arctic: one aimed at foreign audiences that emphasizes science and cooperation and an internal, often cynical voice that emphasizes the Arctic as a frontier for resource exploitation and competition between the great powers.**

This report explores China's internal discourse on the Arctic as well as its diplomatic, military, scientific, and economic efforts across the region. It notes that China sometimes speaks with two voices on the Arctic: one aimed at foreign audiences that emphasizes science and cooperation and an internal, often cynical voice that emphasizes the Arctic as a frontier for resource exploitation and competition between the great powers, with science and diplomacy often serving supporting roles for Beijing's military and economic ambitions.

With respect to China's Arctic behavior, the report stresses China's attempts at coercion of Arctic states and notes the limited dependence of most states on trade with China relative to trade with Europe and the United States. It also traces China's diplomatic investments, reflected in dozens of high-level visits and efforts to join and create Arctic multilateral bodies. It explores China's military efforts, both its occasional dispatching of surface vessels into the Arctic as well as its testing of dual-use platforms and its pursuit of Arctic access. It looks closely at China's scientific activities, noting the ways that they enhance China's diplomatic influence, help China cultivate an Arctic identity, and can sometimes be useful securing resources and strategic access. Finally, the report surveys China's economic investments and its pursuit of the "Polar Silk Road."

The Arctic has often been at the center of great power politics, as Chinese political figures continue to stress.[12] Many of the countries, islands, and coastlines so important in World War II and the Cold War are still geostrategically important today, with China now maneuvering for greater influence within them. During World War II, Germany considered occupying Iceland and in fact set up secret facilities on Greenland and Norway's Svalbard archipelago. The allies occupied all three, with Greenland and Iceland continuing to host NATO bases during the Cold War and Svalbard remaining free of military installations to reassure the Soviet Union. Meanwhile, the entire region was critical to American and Soviet satellites, the intercontinental ballistic missiles both superpowers would send over it in the event of a nuclear conflict, and the nuclear submarines they dispatched to travel under it.

Today, as new economic and strategic opportunities follow the warming of the Arctic, China is seeking its own Arctic influence. It has established science stations in Svalbard (along with other countries) as well as in Iceland; sought them in Canada and Greenland; built satellite facilities in Sweden; sent over 10 expeditions in the region; and significantly increased its economic and political influence across the region. The eight Arctic sovereign states — Canada, Denmark, Finland, Iceland, Norway, Russia, Sweden, and the United States — exercise great influence over the Arctic and its strategically valuable geography. China, in pursuit of status as a "polar great power," wishes to be among them.

II. CHINA'S ARCTIC DEVELOPMENT AND INSTITUTIONS

China's arrival in the Arctic may appear sudden, but it has been carefully pursued since the 1980s, roughly the same time Beijing began to pursue its interests in the Antarctic. As a direct result, China's polar capabilities — despite its lack of any polar proximity — are considered some of the world's strongest and in line with the great power status it seeks.[13] In a speech on China's long-term planning for Arctic strategy given by State Oceanic Administration Director Liu Cigui in 2014, China's Arctic efforts were divided into three main periods.[14]

- The first, from 1980-2000, was "the initial preparation stage." In this period, which started after the dawn of Deng Xiaoping's reform and opening, China began to dispatch its first scientists to the poles, acquired an icebreaker from Ukraine, built some of its first stations, and joined relevant multilateral treaties.

- The second from 2000-2015, was the "development stage." In this period, China significantly increased its polar capacity by building more stations at the poles, building its first domestic icebreaker, launching more expeditions, investing polar fixed-wing aircraft and autonomous platforms, and dramatically increased its political role in the region — joining the Arctic Council as an observer.

- The third stage is to span from 2015-2030, and is the "polar great power stage." CCP leaders like President Xi Jinping and leading polar figures like Liu Cigui say China is at "the starting point of a new historical stage towards the construction of a polar great power [极地强国]."[15] The concept likely includes but also transcends hard power, and this era is to bring a more significant Chinese Arctic presence, including even more expeditions, more stations, new fixed-wing aircraft and icebreakers, more autonomous capabilities, a "polar survey fleet," more technological investment, a Polar Silk Road, greater efforts to safeguard China's polar rights and interests, and more military deployments into the region.[16]

Multiple parts of the party and state will play a role in carrying out this effort — including the Ministry of Foreign Affairs and the People's Liberation Army (PLA). Among the most important is what was once the State Oceanic Administration (SOA), reconstituted and now subsumed by China's Ministry of Natural Resources. Within this structure sits most of China's polar infrastructure and expertise, including the Polar Research Institute of China (PRIC), established in 1989 to coordinate and oversee China's Arctic and Antarctic research under the SOA and later upgraded into an institute and then a center to reflect its growing stature.[17]

Known as the "business center" of China's polar expeditions, the PRIC manages the *Xuelong* icebreaker, in addition to various Chinese polar stations in the Arctic and Antarctica.[18] It is not simply involved in the minutiae of Arctic science, it also has a strategic purpose. In 2009, the PRIC established its Strategic Studies Division, which "takes the responsibilities of the tracing and analysis of the polar circumstances, and the research on the strategic issues in the domains of polar politics, economy, science & technology, as well as security."[19] It is expected to "provide advices for the national decision-making related to the Polar Regions and build the brand of an influential think-tank with regard to the polar strategic studies."[20]

Other bodies also play a role in Arctic policy. The Chinese Advisory Committee for Polar Research [中国极地考察咨询委员会] "is charged with advising the Chinese leadership and bureaucracy on polar matters, organizing scholarly conferences on polar themes, and evaluating China's polar program and its outcomes."[21] The China Arctic and Antarctic Administration (CAA) [国家海洋局极地考察办公室] oversees China's polar expeditions and membership in regional organizations.[22]

III. CHINA'S TWO VOICES ON THE ARCTIC

In externally-facing discourses on the polar regions, China tends to emphasize science and cooperation. In its internal discourses — that is, domestically-oriented media, government reports, comments by Arctic officials and researchers, academic discourses, and leader speeches — Beijing tends to reveal a focus on strategic considerations too. These themes are evident despite a recalibration in China's internal and Arctic discourses observed by some scholars. As Linda Jakobson and Jingchao Peng noted in a 2012 report on China's Arctic ambitions:

> "Before 2011 it was commonplace for Chinese analysts to air assertive, even hawkish views. Since late 2011, following the Arctic Council's second deferral of decisions on permanent observership applications [involving China], Chinese Arctic scholars have become more subdued in public. The concern that overly proactive statements run the risk of offending Arctic states and consequently undermining China's position in the Arctic today shapes the public face of Chinese analysis."[23]

The following sections explore prominent themes in China's internal discourse. They focus on how China sees itself as an aspiring a polar great power; how it sees the Arctic as a new strategic frontier; its view on the Arctic's military value; its belief in the need to use Arctic science to secure geopolitical influence; and its views on the region's value to trade.

Ambitions: Becoming a "polar great power"

China sees itself not only as having interests in the Arctic but also as being on course — over the period from 2015 to 2030 — to become a "polar great power." This concept — which as this section demonstrates is central to China's Arctic policy, has been invoked by Xi Jinping, and has even been subtly tied to various Chinese five-year plans — nonetheless appears to be deliberately excised from China's more foreign-facing Arctic communications, including white papers, press conferences, and propaganda. For example, China's 2018 Arctic White Paper makes absolutely no mention of this concept even though it is clearly at the center of China's Arctic strategy.[24] There are some indications that this white paper was long delayed, perhaps precisely over concerns about how China's Arctic ambitions may be perceived abroad.

Despite the omission of this concept in Chinese from foreign-facing texts, it is clear that top Chinese figures have long stressed China's desire to become a "polar great power." As Anne-Marie Brady notes in her book on China's polar ambitions, it was "in 2005 that China's leading polar scientist first mentioned in public the aspiration for China to become a 'polar great power.'"[25] Over time, steadily more important senior officials reiterated this concept — indicating its growing importance.

- In 2011, Deputy Director of the State Oceanic Administration Chen Lianzeng said China's 12th Five-Year Plan was intended to "gradually realize the transformation [of China] from a large polar country to a polar great power."[26]
- In 2012, President Hu Jintao declared China had the goal of becoming a "maritime power," which also implicated polar affairs.[27]
- In 2013, as Anne-Marie Brady notes, senior Chinese officials stated "for the first time that China's goal of becoming a polar great power was a key component of Beijing's maritime strategy."[28]

- In 2014, Director of the State Oceanic Administration Liu Cigui said that becoming a "polar great power" would be part of China's 13th Five-Year Plan and also stressed that "building China into a polar great power is an important part of building China into a maritime great power."[29]

- In 2014, Xi Jinping gave China's most important polar address and committed China to becoming a "polar great power." The speech, as Brady notes, was "a signal to the entire Chinese political system that polar affairs had moved up the policy agenda."[30]

Xi gave his address on China's *Xuelong* icebreaker while it was docked in Hobart, Australia. It provides context for the origins and objectives of China's polar ambitions. According to commentaries on his address, Xi had stressed that "this is a critical period when our country is moving from a large polar country to a polar great power."[31] One piece has stressed, "the profoundly changing international situation requires us to better carry out polar work."[32] As for what was changing, the author notes that "the geopolitics of the Arctic and its economic relations with other regions of the world are undergoing significant changes," and that other countries were introducing their own "strategic measures" to expand their influence in the poles.[33] "Given this situation," they argue, "China urgently needed to… enter the rank of the world's polar great powers," with renewed emphasis on science, economics, and the defense of China's polar rights.[34] He also emphasized that "polar affairs have a unique role in our marine development strategy, and the process of becoming a polar great power is an important component of China's process of becoming a maritime great power."[35]

State Oceanic Administration officials have repeatedly encouraged staff to study that speech.[36] As State Oceanic Administration Director Liu Cigui put it, "We must thoroughly study the spirit of President Xi Jinping's important instructions, and continue to make new and greater contributions to the building into a polar great power and a maritime great power."[37] Liu emphasized the significant environmental and geopolitical changes in the Arctic and stressed China's need to "strengthen strategic research, clarify strategic goals, formulate national polar policies and long-term development plans, and improve polar work mechanisms" while focusing on its goal of becoming "a maritime and polar power" during the 13th Five-Year Plan period.[38] Others have tied this goal to China's 12th Five-Year Plan. What is clear then is that China's ambition to be a polar great power dates back at least a decade, has found expression in long-term planning documents, and was accelerated around 2014 when it was championed for the first time by Xi — and yet it is left out of China's most prominent foreign-facing texts.

Perceptions: "China's new strategic frontiers"

As early as 2011, Chinese sources began referring to the polar regions as being "new strategic frontiers" [战略新疆域] or more simply as a "new frontier" [新疆域], with many Chinese scholars noting that such frontiers are becoming areas of competition between the major powers.[39] The concept of the "new strategic frontiers" — a supposedly ungoverned or undergoverned region ripe for exploitation and competition — generally refers to what other authoritative texts once referred to as international public spaces: the poles, the deep sea, space, and cyber domains. Xi prominently used the phrase in a January 2017 speech in Geneva, emphasizing that countries must "turn the deep sea, polar regions, outer space, and the internet into a new frontier for cooperation between all parties, rather than an arena for mutual games."[40]

Xi's language was before a United Nations audience, and it was appropriately measured. But China sometimes speaks with two voices on this concept, and internally it is far clearer that it also sees these as arenas for competition and exploitation even as it encourages others not to. The notion that these lines are intended to play to a domestic audience is unlikely; many of the texts are not for popular consumption but rather to coordinate the bureaucracy.

The idea that the Arctic constitutes a "new frontier," like other key Arctic concepts in China, first emerged around 2011 and then subsequently found greater elevation. By 2015, China's National Security Law had emphasized China's interests in the "new frontiers," listing out the domains that comprised them in what appeared to be the first time Chinese law has mentioned the Arctic in a security context — generally with the purpose of laying a legal foundation for protecting China's rights there.[41] As a senior Chinese legislator said in a discussion about why the "frontiers" were included in the national security law, "any government will stand firm and ensure that there is no room for dispute, compromise or interference when it comes to protecting their core interests."[42]

The idea that the Arctic constitutes a "new frontier," like other key Arctic concepts in China, first emerged around 2011 and then subsequently found greater elevation.

A few months later, a group of prominent Chinese universities and think tanks studying the Arctic released their first "Arctic Region Development Report" [北极地区发展报告], which argued that "...the polar region has become an important part of China's 'strategic new frontier.'"[43] In addition, it is clear that China wishes to set help set rules across them. For example, China's 13th Five-Year Plan stated that China "will take an active role in formulating international rules in areas such as the internet, the deep sea, the polar regions, and space."[44] As Wang Chuanxing, a polar expert at Tongji University, noted, "Polar regions, together with the oceans, the internet and space exploration, have become new but strategic areas where China is seeking to develop in the future."[45]

The concept is now a staple in China's Arctic discourse, but the ideas behind it — namely that China will need to secure these areas, protect its interests within them, and exploit them — is longstanding and finds its place in other Chinese documents. Subsequent sections explore this perspective in greater detail.

Military: "New commanding heights of military strategy"

Although China's externally-facing texts describe the Arctic as part of "new frontiers" or "global public spaces" that should be subject to law rather than competition, China's internally-facing authoritative military texts are generally clear that these are domains for geopolitical — even military — competition.

China has a vast array of military publications of varying authoritativeness, so it can sometimes be unclear where to begin. One of the most authoritative texts in this respect is its 2013 "Science of Military Strategy." Massachusetts Institute of Technology Professor M. Taylor Fravel describes this text as "an essential source for understanding how China's thinking about military strategy is changing."[46] Although the text is not an official explication of military strategy or operational doctrine, it "conveys the views of strategists at the Academy of Military Science, an organization that houses some of the PLA's most important military thinkers, some of whom play a much more direct role in

the development of China's military strategy than their counterparts" in the West, and it therefore "constitutes the apex of the PLA's professional military literature on the study of war."[47]

This key text is quite clear on its views of competition in what would eventually be called the "new frontiers," and what it instead refers to as the "global public spaces" such as the Arctic and Antarctic, the deep sea, space, and cyber domains. A review of it is worthwhile.

First, the text notes that competition over the Arctic is likely to be a struggle over strategic locations:

> "In modern times, international geopolitical battles have long been manifested as conflicts on sea power and land power. The essence of that battle is the fight for strategic locations, strategic resources, and strategic channels… At the same time, the new geopolitical battles on the control of oceans, polar regions, space, internet, and other global public spaces will become fierce and will surely have a major and far-reaching impacts on the military strategies of major powers."[48]

Second, the text in places emphasizes the importance of military instruments and military pre-positioning in securing Arctic access.

> "Competition for new strategic spaces has become an important tendency in the military development of all countries. The process of human development is, in a certain sense, the process of continuous expansion from land to the sea, air, and other spaces. At present, each country is accelerating the expansion of their interests and actions into international public spaces such as outer space, the internet, the deep sea, and the polar regions. International public space has become a hotspot for strategic competition among countries. Some developed countries are using their own advantages to try to monopolize and control international public spaces, creating obstacles for latecomers to enter and use them. In the scramble for new strategic spaces, military preparation and pre-positioning is important not only for guaranteeing a country's free use of international public spaces, it is also an important measure to fight for the new commanding heights of military strategy, and it has received great attention and attention from major countries in the world."[49]

Third, the document links the "great rejuvenation" of the Chinese nation to the expansion of China's interests, including to the Arctic and other global public spaces. "Building a well-off society in an all-round way and realizing the great rejuvenation of the Chinese nation are national strategic goals for the first half of the 21st century. Safe, stable, and continuous expansion of national interests are the basic conditions and important ways to achieve this goal," it argues.

Fourth, it notes that Western countries sometimes constrain the expansion of China's interests, requiring China to retain the option of military force.

> "As the breadth and depth of the expansion of my country's national interests continue to increase, the constraints of international rules and regulations under the leadership of the West will become increasingly prominent, global and regional geopolitical pressure will also increase, and — because conflict of interests can be difficult to reconcile and because the interests outside the country face major threats — we cannot rule out the possibility of using force in a flexible way."[50]

In the next few lines, the text links this mindset to competition over global public spaces like the Arctic which will again require military capability:

> "In the final analysis, the game of great powers is about competition to maximize national interests. In the future, this competition will increasingly focus on the struggle over and control of global public spaces such as the oceans, polar regions, space, and the internet. In this context, our military must broaden its military strategic vision and, within a much broader domain, provide strong strategic support for safeguarding national interests."[51]

Fifth, the documents reference global public spaces like the Arctic as regions that could be used to threaten China. Although this section does not discuss it explicitly, it is well understood that intercontinental ballistic missiles from China to the United States, and vice versa, are likely to traverse Arctic airspace. The document also links global public spaces like the poles to China's own security interests, and stresses the need to be able to maintain some military influence there as competition intensifies:

> "Sovereign space is highly related to global public space. The inevitable result of economic globalization and technological development is that the security and development interests of a country go beyond the traditional territorial land, territorial waters, and airspace, and continue to expand to global public spaces such as oceans, space, polar regions, and the internet. The wide application of long-range reconnaissance and early warning command, long-range rapid force projection, and long-range precision strikes also makes it necessary to maintain the security of sovereign space with the military capability to conduct offensive and defensive confrontations in global public spaces. With the sovereignty space of various countries basically stable, the world is entering an era of competition to develop, utilize and control the global public spaces… The global public space is a common asset of mankind, and it is related to the common destiny of mankind in the future. The development, utilization, and protection of global public space, and preventing attacks on national sovereignty from global public space have increasingly become important factors in the strategic planning of countries."[52]

These excerpts are not focused exclusively on the Arctic, but they explicitly list the poles. The sentiments contained within them are also found in somewhat less authoritative works by Chinese government officials, scholars, and analysts who also stress the strategic value of the Arctic.

For example, former Chinese Ambassador to Norway Tang Guoqiang noted, "The Arctic region also has important military strategic value. The Arctic region is a strategic keystone for the continents of Asia, Europe and North America. Military experts believe that if you dominate the Arctic region, you can occupy the 'commanding heights' of the world's military."[53] Tang's comments were in line with the history of the Arctic as a zone of strategic and military competition. As he explained:

> "During World War II, certain passages in the Arctic Ocean were important strategic routes for the Allies to fight against Germany. A considerable part of Western aid materials had been transported into the Soviet Union through the Arctic Ocean. During the Cold War, the Arctic Ocean became the front line of U.S.-Soviet confrontation, the preferred route for fighters and long-range missiles to attack each other, and the best test base for nuclear submarines. After the end of the Cold War, the Arctic military confrontation eased."[54]

Tang further argued that the Arctic is now an important zone for global politics and economics, and that countries within the region, as well as many outside of it, are struggling for mastery over it. He argues that "countries now regard the Arctic as the 'new Middle East' for energy resources, the 'new lifeline' of the global economy, and the 'new commanding heights' for global militaries. They have increased scientific, political, economic, and military investments as they strive to grasp dominance over future Arctic affairs."[55]

Others, notably China's Arctic scholars and military strategists who write full-time on these issues, make similar arguments. Guo Peiqing of China's Ocean University noted in a discussion of strategic geography that "if you control the Arctic region, you will be able to obtain the 'three continents and two oceans' geographical advantage and control the major countries in the Northern Hemisphere."[56] Dalian Maritime University scholar Li Zhenfu declared that "whoever occupies the Arctic… is likely to have the strategic initiative of the world in the future."[57] In a 2017 interview, Cheng Xiao, dean of the College of Global Change and Earth System Science at Beijing Normal University, asserted that the Arctic "has major strategic benefits for my country, my country's future development opportunities lie in the Arctic, and major military threats come from the Arctic."[58] These statements implicitly treat the Arctic as a *terra nullius,* downplaying the role of international law in the region's future.

Some military scholars have been quite open about the need for China's military to operate more regularly in the Arctic. Naval Military Academic Research Institute associate researcher Yang Zhirong stressed that the People's Liberation Army Navy (PLAN) "must give full play to the advantages of a strategic international service, fully carry out weapons and equipment, naval battlefields, personnel training, military diplomacy, and other aspects of work, and bravely assume the historical mission of pioneering the Arctic." He also argued that potential future activities could include sending nuclear submarines to expand strategic forces, in addition to sending troops to the Arctic Ocean for voyages and training that would "continuously expand the space for our naval activities and effectively safeguard our economic and security interests in the Arctic."[59]

Beijing's concerns over growing American involvement and calls to counter China's influence in the Arctic are also driving this strategic shift. China has been criticizing the U.S. and drawing attention to what it sees as American efforts to create instability in the Arctic—all of which discredit U.S. Arctic policy. Following Secretary of State Mike Pompeo's speech during the 2019 Arctic Council ministerial, which criticized Chinese involvement in the Arctic, Chinese Ministry of Foreign Affairs Spokesperson Geng Shuang stressed that China doesn't "play a small abacus of geopolitical games, and we [China] don't engage in closed and exclusive circles."[60] In response to Pompeo's claims that China has strengthened its security and military presence in the Arctic through infrastructure and science activities in the region, China Institutes of Contemporary International Relations assistant researcher Chen Zinan argued that "practice has proven that China is not a 'troublemaker' in the Arctic, but an 'opportunity creator," listing examples of successful Chinese cooperation in the region.[61] National University of Defense Technology scholar Hu Xin also wrote: "It is not difficult for the international community to see what China and the United States are doing in the Arctic, who is safeguarding the common interests of the international community, and who is smuggling and slandering."[62]

China often speaks with two voices on Arctic military deployments as well. Chinese sources have been critical of recent U.S. moves in the Arctic that are similar to those that China has made in the past. In a 2019 article published in Liberation Army Daily, the author

argues that the U.S. deployment of both the *Healy* icebreaker and underwater robots in the Arctic Ocean demonstrates that "The acceleration of the United States' march into the Arctic has made military competition in the region increasingly fierce. This runs counter to the general trend of peace and cooperation in the Arctic region."[63] This came despite the fact China has dispatched its own surface action group to the Arctic, deployed underwater robots in the region, and of course dispatched its own icebreakers on several occasions.

Science: "The right to speak"

Chinese externally-facing texts frame the country's interest in the Arctic as motivated in large part by genuine scientific pursuit. The claim is that China is directly affected by environmental changes in the Arctic, and therefore its scientific efforts are in China's interests and also nobly contribute to human knowledge.

Internal texts are sometimes more candid that China's scientific research is important for increasing China's regional influence in the poles and in facilitating its ability to operate within the region, both for military and economic purposes.

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China's discourse on Antarctic research often offers insight into how it thinks about Arctic scientific endeavors, and both are subsumed under the auspices of the State Oceanic Administration's polar research efforts. Yang Huigen, one of China's top polar officials, once said, "According to the World Antarctic Mineral Resources Management Treaty, the share of resources that countries can enjoy when Antarctica can be developed will be determined by their contribution to the Antarctic scientific investigations and undertakings."[64] Yang was unambiguous about how doing so would provide China long-term benefits as a global commons was converted into something more exploitable by nation states: "At present, Antarctica is the last piece of the earth with abundant resources. Undeveloped pure land. Therefore, we must hold high the banner of scientific research, find a foothold in Antarctica, and take root."[65] Yang further argued that "the three most competitive resource treasures in the world are the seabed, the moon, and Antarctica. In order to gain a greater say in the Antarctic issue, some small countries are also doing everything possible to set up stations in Antarctica to 'plant flags.' It can be said that the loss of the scientific research base in Antarctica means the loss of space for resource development."[66] Similarly, another prominent Chinese polar scholar who also served in a senior position at the SOA said, "Under the premise of international scientific research cooperation in compliance with the Antarctic Treaty, we must safeguard our national interests. The ability to build more scientific research stations... strengthens China's right to speak in international Antarctic affairs."[67]

The Arctic is not as open as the Antarctic, as Chinese officials are well-aware, but the idea that science might help establish a basis for influence is clear — a notion other powers have at times shared. Guo Peiqing of Ocean University of China asserts that a country's level of scientific research activity in the Arctic "directly determines its 'right to speak' [话语权] in Arctic affairs."[68] Government officials make similar points. During a visit to the *Xuelong* icebreaker in Chile, Wan Gan, the then-vice chairman of the

Chinese People's Political Consultative Conference, also emphasized that "conducting scientific investigations in 'new frontiers'... like polar regions... contributes to China's transformation from a maritime large country to a maritime great power."[69] At a meeting of the China Advisory Committee for Polar Research (CACPR), established in 1994 with the approval of the Ministry of Science and Technology and part of the SOA, then-SOA deputy director Chen Lianzeng declared, "The committee members believe that China's polar scientific investigations and undertaking are a window that reflects national power and displays the image of a great power, and it is of great significance [to China]."[70]

Expeditions also help with practical matters. The SOA boasted that some of its scientific expeditions in the Arctic allowed China to "acquire navigation techniques and experience in the complicated and frozen environment of the Arctic... and obtain first-hand information on its shipping routes," showing the commercial motivations behind scientific endeavor.[71] Similarly, in a 2017 interview, SOA deputy director Lin Shanqing noted that China's scientific expeditions, including the fifth Arctic expedition crossing the Northeast Passage, allowed China to not only obtain "a large amount of first-hand information for my country to understand Arctic climate change, but also laid the foundation for my country to explore and utilize Arctic waterways and participate in the sustainable development of the Arctic economy."[72]

Chinese Arctic facilities are sometimes explicitly described as advancing China's economic interests too. For example, when China sought an Arctic facility in Canada — to accompany existing facilities in Iceland, Norway, and Sweden — a polar scientist and geologist affiliated with the project said the proposed location "would be a good place" because it was an area rich with energy. "We are interested in not only science, but also the technical markets like oil and gas," he said.[73]

China would hardly be the first great power to pursue strategic and economic interests under the banner of international scientific research, but often states within the region have previously suspended skepticism about China's motivations when some of the country's internally facing texts are quite clear about its motivations. Often, these motivations are explicitly downplayed in China's externally facing texts.

Diplomacy: China as a "near Arctic state"

Xi Jinping once declared that Asia's problems should be solved by Asian states.[74] And yet, Beijing has long applied a different logic to the Arctic — stressing that states like China deserve a say.

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China a decade ago began to refer to itself as a "near-Arctic state" [近北极国家]. The reason why, at least nominally, was articulated by Vice Foreign Minister Zhang Ming at the 2015 Arctic Circle Assembly, who argued that "the changing natural environment and resources exploration of the Arctic have direct impact on China's climate, environment, agriculture, shipping, trade as well as social and economic development."[75] The concept found its highest expression in 2018, when China released its Arctic White Paper which said China was a "near-Arctic State" because it is directly affected by the natural conditions of the region.

China's motivation for using the term "near-Arctic state" is not meant to simply indicate that China is affected by environmental and climate factors related to the Arctic. It is also related to China's distrust of Arctic states, namely, that they will lock Beijing out of the region's resources and opportunities. Beijing articulates this concern diplomatically in the 2018 Arctic White Paper, where it argues, "The Arctic situation now goes beyond its original inter-Arctic States or regional nature, having a vital bearing on the interests of States outside the region… [as well on] the shared future for mankind."[76] But sometimes the points are made far more sharply in internally-facing discourses, including scholarly writing.

Prominent Arctic scholars in China often warn that the eight Arctic states are "trying to institutionalize the [Arctic] Council to strengthen their dominant position in Arctic governance… and make the Arctic Council a highly exclusive Arctic governance mechanism."[77] Guo Peiqing warned in 2007 for example that "Things that happen in the Arctic and Antarctic involve China's rights and interests. During this process we should guard against some individual states casting China aside and privately consulting [among themselves] about establishing a regional multilateral treaty system, thereby harming China's polar rights and interests."[78] He noted further that "this concern is not at all unreasonable because Russian scholars have been clamoring for the establishment of an 'Eight-State Polar Region Alliance.'"[79] He and other Chinese scholars took particular objection to Russia's 2007 planting of its flag on the Arctic Ocean seafloor: "Russia's flag-planting move is directed at the blind spots of international law… From a legal point of view, Russia's flag planting has no meaning."[80] Ultimately, these concerns led China to push to become an observer in the Arctic Council and later to call itself a "near-Arctic state."

Chinese scholars are particularly worried that Arctic states will work together to expand their continental shelves and claim a greater share of the region's resources. As Guo Peiqing argues, "Even if the Arctic countries succeed in expanding their continental shelves, their overlying water bodies will still be the international high seas" that China could conceivably exploit.[81] "China has no land in the Arctic," he notes, "but it is not without interests."[82]

China's fear of being shut out is clear in most Arctic texts and statements by prominent officials. As Chen Mingming, the former Chinese ambassador to Sweden, explains in a 2017 interview, "The Arctic is not like Antarctica, which is open for every country in the world. If other countries want to participate in the exploration and development of the Arctic, they have to cooperate with the countries surrounding it, and countries in northern Europe… are ideal partners for China to find the path to the Arctic."[83]

Chinese scholars also see opportunities to put forward China's own governance in "new frontiers" like the Arctic. Yang Jian and Zheng Yingqin from the Shanghai Institutes for International Studies (SIIS) have stressed that the current governance of new frontiers like the polar regions faces a "governance consensus deficit," and that China's "community with a shared future for mankind" [人类命运共同体] concept "provides a new value guide for global governance."[84]

Such greater levels of involvement have also arguably given China a greater say in the Arctic affairs. Chinese documents like the 2018 Arctic White Paper stress that China "upholds the current Arctic governance system" and "stands for steadily advancing international cooperation under the Arctic." However, Chinese officials and scholars have also expressed concerns over the Arctic's current governance structure and

inclusiveness. During his 2018 speech at the BRICS Business Forum, Xi stressed that when dealing with issues in the polar region, "we [the international community] must fully listen to the opinions of emerging market countries and developing countries, reflect their interests and demands, and ensure their development."[85] Non-authoritative Chinese sources, on the other hand, have been more explicit with their criticism. Zhang Yao, director of the Center for Maritime and Polar Region Studies at SIIS, has argued that Arctic cooperation faces a number of challenges, including its lack of an effective international governance mechanisms and non-Arctic countries' inability to use their voice in Arctic governance.[86] These critiques reflect arguments Chinese officials have made in foreign policy statements when addressing the flaws of the current U.S.-led international system and demonstrate China's strong interest in applying such criticisms to this "new frontier."

The 2018 Arctic White Paper states that China's main focus for its Arctic activities is "to explore and understand the Arctic." Shortly after the white paper was released, the Ministry of Foreign Affairs explained that it believed publishing it would help guide policy on China's Arctic activities, allow other countries to better understand China's Arctic proposals, and promote greater cooperation.[87] But given that the document ties the Arctic to China's Belt and Road Initiative (BRI) and emphasizes China's rights to research and commercial activities in the region, it is questionable that China's Arctic strategy is solely meant for environmental protection and research.[88]

IV. CASE STUDIES IN COERCION AND INFLUENCE

Sweden: "For our enemies, we have shotguns"

Sweden has long had warm ties with China, often proving willing to accommodate China's Arctic, space, and technology ambitions. None of that has stopped Beijing from turning on Sweden in the last two years with a propaganda campaign full of inflammatory threats.

Ties between Sweden and China started off well. In 1950, Sweden was the first Western country to recognize the People's Republic of China, which led Mao Zedong — excited by the gesture — to uncharacteristically receive the Swedish ambassador in person when he presented his credentials.[89] In the decades since, Sweden has been open to Chinese investment, allowing a Chinese consortium to bid to build Scandinavia's largest port, a Hong Kong businessman to purchase a Swedish submarine facility and lease it back to the Swedish navy, and Chinese companies to purchase three Swedish semiconductor firms.[90] Ties have even extended into certain dual-use arenas. Beginning in 2011, the Sweden Space Corporation allowed Beijing to access its antennas in Sweden, Chile, and Australia.[91] And in what proved a major success for China, Sweden was even the first state worldwide to offer China its first fully-owned overseas satellite ground station, which was completed in 2016 — a decision Chinese policymakers said could "prove just as politically significant to Beijing as the facility's technological benefits" because of its precedent-setting power.[92] For Beijing, Sweden was an ideal partner because it was not a part of NATO, had a tradition of neutrality, and was perceived to have some independence from Washington. And for its part, Sweden often strove to avoid giving offense. When Swedish Prime Minister Stefan Löfven was asked in 2015 whether China was a dictatorship, he refused to answer.[93]

"For Beijing, Sweden was an ideal partner because it was not a part of NATO, had a tradition of neutrality, and was perceived to have some independence from Washington.

Sweden's careful cultivation of China, its relative strategic independence between Washington and Beijing, and its important Arctic geography have not prevented it from suddenly becoming a target of Chinese economic coercion and some of Beijing's coarsest verbal threats. The full rupture began when Beijing, despite relatively warm bilateral ties with Sweden, sent its agents to kidnap a Swedish bookseller named Gui Minhai from Thailand, bring him to mainland China, and imprison him after a forced televised confession. These actions were shocking and unprecedented, but Löfven worked diligently to avoid a rupture. During a 2017 visit to China, he said he would bring up Gui Minhai's case "in a manner that best serves the purpose" and otherwise emphasized business and investment.[94]

After two years, Gui was briefly released and allowed to move around freely in China. But while on a train to Beijing, accompanied by Swedish diplomats, he was once again arrested, this time by plainclothes officers who gave no explanation. Gui was forced to give yet another televised confession and was sentenced to prison for 10 years in early 2020. Despite Sweden's investment in bilateral ties, China prohibited Swedish officials from meeting Gui or observing his trial.[95] By then, it was clear that Sweden's attempt at a more gentle approach with China had failed.

By 2019, China had began to more openly threaten the Swedish government and media for even mentioning Gui Minhai's case. Those threats peaked when a non-governmental

organization of writers, journalists, and others — Svenska PEN — awarded Gui its Tucholsky Prize, with Sweden's culture minister in attendance at the ceremony. In a November 30 interview with Swedish radio, China's Ambassador to Sweden Gui Congyou warned Swedish media that, "For our friends, we have fine wine. For our enemies, we have shotguns" [朋友来了有好酒,坏人来了有猎枪], stunning his interviewer.[96] Even by the new standards of Chinese diplomacy, Gui Congyou's statements — of which several examples are included below — have been shocking:

- November 14, 2019: "Some people in Sweden insisted on lying and doing wrong deeds on this case, and they are already suffering from the consequences… normal exchanges and cooperation will be seriously hindered. You are smart enough to know what I mean by 'consequences.'"[97]

- November 14, 2019: "We oppose even more resolutely any Swedish government officials attending the awarding ceremony. It will bring serious negative impacts on our bilateral friendly cooperation and normal exchanges. We will surely take countermeasures."[98]

- November 14, 2019: "If they ignore the strong oppositions from the Chinese side and go ahead anyway [with the event], we will have to take measures. Some people in Sweden shouldn't expect to feel at ease after hurting the feelings of the Chinese people and the interests of the Chinese side… We ask Svenska PEN to show some basic respect for China and the 1.4 billion Chinese people and stop the wrong actions before it's too late. Let's wait and see."[99]

- December 5, 2019: "No one can count on harming China's interests on the one hand and making big profits in China on the other."[100]

- December 5, 2019: "We will not only introduce restrictions in the field of culture, but will also limit exchanges and cooperation in economics and trade… We will inform colleagues at your Ministry of Foreign Affairs."[101]

- December 19, 2020: "There is no doubt that the Swedish side has to take full responsibility and bear the consequences."[102]

- January 17, 2020: "The frequent vicious attacks on [the CCP] and the Chinese Government by some Swedish media and journalists reminded me of a scenario where a 48kg weight boxer keeps challenging a 86kg weight boxer to a fight. The 86kg boxer, out of good will to protect the light weight boxer, advises him to leave and mind his own business, but the latter refuses to listen, and even breaks into the home of the heavy weight boxer. What choice do you expect the heavy weight boxer to have?"[103]

Gui Congyou's fiery words were accompanied by some limited actions. China banned Sweden's culture minister from entering China, said that other officials from the ministry would no longer be welcome and that it would ban journalists critical of China. Beijing continued to publicly denounce specific Swedish journalists and the media. It also banned two Swedish films from screenings in China.[104]

In response to this turn, Sweden has adopted tougher measures. Its defense agency warned that China's satellite station might be serving the Chinese military, given the militarized nature of the country's space program.[105] The Sweden Space Corporation eventually terminated the access it had provided to China to Swedish antennas in

Sweden, Chile, and Australia, noting that "the geopolitical situation has changed since these contracts were signed in the early 2000s."[106] Sweden shut down Confucius Institutes, terminated sister city agreements, increased scrutiny of Chinese foreign investment, and effectively banned Chinese telecommunications giant Huawei.

In response to this tougher position, China has yet to retaliate, though it has made several threats, including against Sweden's Wallenberg family and firms like Ericsson and Ikea, among others.[107] After the Huawei ban, for example, China suggested it might punish Swedish companies.[108] Even if it did retaliate, the fallout may be limited. While Chinese English-language state propaganda emphasizes Sweden's need for China — stressing that China is Sweden's largest partner in Asia but that Sweden "accounts only for a small proportion of China's foreign trade" — that supposed dependence is seriously exaggerated.[109] China is Sweden's number eight or nine trading partner, and Sweden conducts vastly more trade with the European Union and the United States than it does with China. Moreover, Sweden's EU membership offers it some protection. After Gui Congyou's threats, EU officials pledged "full solidarity" with Sweden, suggesting for Arctic states closer coordination with the United States, the EU, and NATO could complicate China's efforts to coerce them — particularly if they make clear that coercion of any one state will produce a response from all.[110]

Norway: "They must pay the price for their arrogance"

Historically warm ties between Norway and China did not protect Oslo from Chinese coercion. Norway was one of the first countries to recognize the Communist government in China in 1950, one of the first to establish formal diplomatic relations with China in 1954, the first country to sign a cultural agreement with China in 1963, and the first to provide China permanent Arctic access in 2003.[111] Indeed, in a triumph for China's Arctic ambitions that has since been critical in sustaining China's Arctic science expeditions, the government of Norway allowed China to build its inaugural Arctic research station on the Norwegian archipelago of Svalbard, which is so far north that it is located within the Arctic Circle. Norway was also on track to provide China its first European free trade agreement (FTA). And yet, despite this positive history, by 2010, Norway was the subject of an intense campaign of coercion and criticism by Beijing.

Norway's government had done nothing to offend China, but it was — like Sweden's — held responsible for the actions of the country's civil society.

Norway's government had done nothing to offend China, but it was — like Sweden's — held responsible for the actions of the country's civil society. In 2010, Norway's Nobel Committee had decided to award the Nobel Peace Prize to Liu Xiaobo, a Chinese writer who had been imprisoned for authoring a pro-democracy manifesto. The committee is not controlled by the Norwegian government, and according to some of its members, the Norwegian government in an unprecedented intervention tried to discourage them from awarding the prize to Liu Xiaobo.[112] Neither this effort nor Norway's past accommodation of China's Arctic ambitions carried much weight, however, and China took a series of escalating steps against Norway for years following the incident. China held the Norwegian government responsible for failing to stop the award, believing that the Nobel Committee — which is chosen by the parliament and influenced by the government — was not truly independent.

After the prize was awarded, China summoned the Norwegian ambassador to protest the decision, stopped all high-level contact, and canceled negotiations over a near-complete FTA that had been under negotiation for two years. China also undertook a boycott of Norwegian salmon, and Norway's direct market share in China's salmon market fell from 90% before 2010 to 30% by mid-2014, though exports likely entered China through other routes. China also tightened its visa policies for Norwegian travelers to China — even preventing a former prime minister from traveling to China — and deliberately made the process for Norwegians far more cumbersome for them than for other Europeans.[113] When asked why it treated Norway differently in visa policy, a top Beijing official did not respond directly but said that some countries were "of low quality" and "badly behaved."[114] And although China's Global Times newspaper is not necessarily an authoritative reflection of the Chinese government line, it seemed to capture the government's attitude in an editorial on Norway published that same year: "They must pay the price for their arrogance," it stated, "This is also how China can build its authority in the international arena."[115]

Norway tried to reverse the slide in relations, but its concessions in the wake of the Nobel incident were not reciprocated and sometimes met with continued Chinese punishment. Norway enthusiastically supported China's bid for Arctic Council observer status for years, its leaders refused to meet the Dalai Lama, and it joined China's Asia Infrastructure and Investment Bank in a move that gave the bank greater legitimacy.[116] The very year after China gained Arctic Council observer status with Norway's support, the Chinese government nonetheless tightened its restrictions on Norwegian salmon, declaring them unsafe.[117] It also continued to refuse to normalize relations despite the fact that a condition of its observer status was to pursue "open and transparent dialogue" with Arctic Council member states.[118] Ultimately, it was not until years after Norway's concessions that China began to once again normalize its relationship with Norway.

As the Global Times put it in an editorial that reflected on the normalization of the bilateral relationship: "Norway has deeply reflected upon the issue and learned its lesson… Norway has a population of merely 4 million, but it tried to teach China, a country with 1.4 billion people, a lesson in 2010. It was a ridiculous story… It is hard for Chinese society to forget our anger of six years ago."[119]

Iceland: "They are ill" and "weak"

In 2011, Chinese propaganda official-turned-billionaire businessman Huang Nubo (黄怒波) sought to purchase 100 square miles of Icelandic land with the backing of the state-run China Development Bank. The plan defied basic economic logic. Huang hoped to build a $200 million leisure complex, which would include a golf course, villas and, oddly, a private airfield on some of Iceland's coldest, remotest, and windiest land. Local residents scoffed at the suggestion that one could play golf in such harsh and gusty terrain, which incidentally also held a record for the country's lowest temperature ever recorded.[120] And Huang's company, though established in China, had not completed such a project abroad before.

The proposal rocked Iceland, and some prominent officials opposed it. Iceland's interior minister found Huang's plan odd: "It never seemed a very convincing business plan," he remarked, concluding that "one has to look at this from a geopolitical perspective and ask about motivations."[121]

Huang's proposal came at a time when China's pursuit of close relations with Iceland had intensified. Reykjavik had been in dire straits after the global financial crisis and Beijing

appeared to pose a partial solution. In the years since, China dispatched Premier Wen Jiabao for a two-day visit; signed an FTA with Reykjavik; established a research station in Iceland; and built the largest foreign embassy in the country. All this came despite the fact that Iceland had a GDP of just $20 billion, suggesting that — as with Huang Nubo's investment — more than economic motivations were behind China's courtship.

Huang claimed his interest in Iceland — and in the Arctic — began decades earlier when he was a college student assigned to a room with 26-year-old Icelandic exchange student Hjörleifur Sveinbjörnsson. The two apparently lost touch for three decades until 2007, by which point Huang had ended his nine-year career in the Propaganda Department and transformed himself into a wealthy businessman. Sveinbjörnsson, for his part, had become politically well-connected: his wife, Ingibjörg Sólrún Gísladóttir, was leader of Iceland's Social Democratic Alliance and later the country's foreign minister. Huang visited Iceland and began cultivating goodwill a year before his proposed investment. He established a China-Iceland Cultural Fund, donating $1 million to support it.[122] Sveinbjörnsson became one of Huang's strongest advocates in Iceland, and reporting suggested that much of the Social Democratic Alliance supported Huang's investment proposal while prominent members of the Green Party generally opposed it.[123]

"Dashed in these plans, Huang was candid in his assessments of Iceland, which he saw as frail after the global financial crisis. "They are ill, and when they're weak a young and robust man comes that frightens them."

When Huang sought to build his resort, he promptly ran into a law that prohibits foreigners in most circumstances from purchasing land from Iceland. He initially sought an exemption from these rules, but despite the support of many members of Iceland's government, he was unsuccessful. Then, to get around obstacles, his company and locals supportive of the deal came up with an interesting arrangement. Seven municipalities surrounding the land would create a private company to buy the land, with the help of a Chinese loan. The land would then be leased to an Icelandic company that Huang Nubo would control, allowing him to build his complex.[124] That plan also fell through due to government restrictions and a significant amount of internal political pressure.

Dashed in these plans, Huang was candid in his assessments of Iceland, which he saw as frail after the global financial crisis. "They are ill, and when they're weak a young and robust man comes that frightens them."[125] Of his Communist Party ties, which had raised some concern, he said, "I feel proud to be a Communist Party member."[126] Huang angrily denounced the scrutiny he received as "racial discrimination," but Iceland had long been strict on foreign investment and had scuttled the plans of a major Canadian investor some years earlier.[127] As the interior ministry noted, Huang's proposal stood out for its size: "there is no precedent for such a large area of Icelandic land to have been placed under foreign control."[128] And of course, there were legitimate concerns about Huang's intentions too. "I don't understand why they bring up terms like regional security and strategic location again," Huang said.[129] Of course, these are ways that Beijing itself discusses the Arctic. And while Huang's activities may have been innocent, the fact he could never fully account for his business plan even after three years raises questions about his motivations.

Many of those who worked with Huang on his ill-fated investment continued to be active in other Chinese efforts in Iceland. Huang's spokesman and representative Halldor

Johansson also worked to create an observation station for the Polar Research Institute of China in Iceland.[130] His organization, Arctic Portal, facilitated the sale of a plot of land for the facility. Reinhard Reynisson, a former mayor who was part of the effort to help Huang overcome laws against foreign land ownership, was involved in the land purchase for the observatory and ran a firm involved in its construction.[131] As the original owner told Le Monde, "I've been trying to sell for four years, but there was no buyer. Then one day Chinese scholars arrived. They studied the land, observed the sky, and they decided to buy, without discussing the price."[132] What was originally intended to be a modest station to observe the aurora became much more — a four-story China-Iceland Joint Arctic Science Observatory. As Johansson put it, "They [the Chinese] have basically paid for all of it."[133] At the launch event, Yang Huigen — the director of the Polar Research Institute of China, quoted earlier in this report — also made an appearance.[134] Despite some concerns in Iceland that the facility might serve Chinese strategic ambitions, including in signals intelligence, Yang nonetheless said that China hoped to "build more buildings and install more sensors and detectors" at the site.[135] The gathered officials spoke about China's presence there as a strictly scientific endeavor, but as Yang and his colleagues have indicated in the past, Arctic science is a tool for geopolitics and access.

Coercion through trade: Assessing Arctic dependence on China

Chinese economic statecraft is feared by some in the Arctic and around the world. Beijing has at times made clear to those states it targets how large its economy is relative to theirs, and how little bilateral leverage they therefore possess. But the conventional wisdom on the Arctic's dependence on China is overstated, and the Arctic's most vulnerable economies actually export more to the United States than they do to China — and significantly more to Europe.

The Arctic includes eight states, but three of these — the United States, Russia, and Canada — have large economies that could withstand a degree of Chinese economic coercion. By contrast, the smallest Arctic economies include Denmark, Finland, Iceland, Norway, and Sweden. These states, referred to here as the "Arctic Five," presumably have the least leverage vis-à-vis China and therefore would theoretically have the greatest dependence.

Publicly available trade data, however, suggests this dependence is limited.[136] The percentage of "Arctic Five" exports that goes to China is far lower than what goes to the United States and its European allies and partners.

In 2019, China accounted for an average of 4.0% of exports for the five "Arctic Five" countries (ranging from 2.5% for Iceland to 5.3% for Finland), less than the United States (an average of 6.2%, ranging from 4.3% for Norway to 7.6% for Sweden) and far less than the other member states of the North Atlantic Treaty Organization and/or the European Union combined (an average of 70.3%, ranging from 59.8% for Denmark to 81.2% for Norway).[137]

Moreover, what is especially interesting is that Arctic Five export dependence on the United States, and on EU/NATO states excluding the United States, has scarcely changed in 25 years. In 1994 for example, China accounted for an average of 0.8% of Arctic Five exports (ranging from 0.02% for Iceland to 1.6% for Sweden). China's share has increased fivefold since then.[138] The United States accounted for an average of 8.1% of Arctic Five exports in 1994 (ranging from 4.7% for Denmark to 14.5% for Iceland), a slightly higher level compared with today. More importantly, present EU and NATO members accounted for an average of 74.0% of Arctic Five exports in 1992 (ranging from 68.7% for Iceland to 83.5% for Norway).[139]

What this demonstrates is that while China may have significant bilateral leverage over Arctic states, that leverage is actually fairly modest when considering Arctic trade with other states. Moreover, if the EU/NATO states respond to Chinese statecraft in concert, China's leverage essentially falls to zero.

FIGURE 1: "ARCTIC FIVE" EXPORT DEPENDENCY, 1994 VS. 2019

Other EU & NATO includes all the current members of both organizations except for the exporting country and the United States: Albania, Austria, Belgium, Bulgaria, Canada, Croatia, Cyprus, the Czech Republic, Estonia, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Montenegro, the Netherlands, North Macedonia, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Turkey, and the United Kingdom, as well as the other four members of the Arctic Five. Source: UN Comtrade Database[140]

V. CHINA'S DIPLOMATIC ACTIVITIES

China has become more active in Arctic institutions to legitimize its role as a regional power and build the foundation for future Chinese participation in Arctic affairs. China describes itself as a "near-Arctic" country — a formulation it has selected for itself that has no official standing within the region and its diplomatic institutions. To justify its regional role, it has consistently emphasized how changing conditions in the Arctic "have a direct impact on China's climate system" as well as "China's economic interests in agriculture, forestry, fisheries, and oceans."[141] In recent years, therefore, Beijing has significantly increased its participation in regional Arctic dialogues and Track II events, sent several high-level CCP officials to the region, and integrated the Arctic with its most prominent foreign policy projects, like the Belt and Road Initiative.

Chinese sources often point to the country's long history of diplomatic engagement with Arctic states and institutions as a way of justifying China's regional presence. Both official and unofficial Chinese sources frequently highlight China's signing of the Spitsbergen Treaty in 1925 as the beginning of the country's Arctic endeavors.[142] While the treaty allowed China to begin sending vessels for fishing and commercial activities to the region, it has also been referenced as one of the primary documents that authorizes China's current research and commercial activities in the Arctic.[143] After 1925, Chinese activities in the Arctic were limited for several decades. As China Institute of International Studies (CIIS) assistant research fellow Liu Jin argues, "China didn't undertake any significant activities in the Arctic for more than 60 years after 1925."[144]

High-level visits and the Arctic Council

Decades later, China eventually became more active in Arctic diplomacy. Liu Jin notes that "as the reform and opening up policy proceeded in an all-round way and the Arctic region's desecuritization process unfolded after the Cold War, China renewed its focus on the Arctic" and submitted an observer application to the Arctic Council in 2007.[145] China's original application was denied in 2009 "largely because of internal debates among the eight member governments on how to ensure that new observers, including large entities such as China, Japan, and the European Union, could participate as observers without changing the nature of the organization itself."[146]

Many Chinese scholars believed that non-participation in the forum was as good as being shut out from the region. Beijing wanted the ability to shape the mechanisms of Arctic governance too.

Many Chinese scholars believed that non-participation in the forum was as good as being shut out from the region. Beijing wanted the ability to shape the mechanisms of Arctic governance too. Even Russia was seen as unwilling to assist China in expanding its Arctic profile — to say nothing of the region's other states.[147] As Marc Lanteigne writes, "Despite strengthening Sino-Russian economic and diplomatic relations, the government of Vladimir Putin was nonetheless concerned that China's engagement with the Council would adversely affect Russian Arctic policy," a view also held by much of the Chinese Arctic policy community.[148]

Despite this, China continued to pursue an active engagement strategy with Arctic Council member countries between 2010 and 2013. A key component of this strategy was high-level Chinese visits to the region. While U.S. officials have also used high-level trips to engage Arctic

countries, Beijing's efforts have gone beyond what one might ordinarily expect in the usual ebb and flow of diplomatic activity, showing that the Arctic was a key strategic priority for China's leaders.

In 2010 alone, several Chinese officials visited Arctic Council member countries for high-level visits. For example, then-Vice President Xi Jinping visited Finland and Sweden, then-President Hu Jintao visited Canada, and former Politburo Standing Committee member He Guoqiang visited Iceland to sign three bilateral economic agreements.[149] Driven by an interest in establishing economic ties with Greenland, Hu also visited Denmark in 2012.

TABLE 1: HIGH-LEVEL CHINESE VISITS TO ARCTIC FIVE PLUS CANADA AND GREENLAND (2000-2020)

	President	Premier or vice president	Foreign minister or state councillor for foreign affairs	Minister of national defense	Total
2000		1		1	2
2001					0
2002	1	1		1	3
2003		1			1
2004					0
2005	1		1	1	3
2006		1	1		2
2007	1		1		2
2008					0
2009		1	1		2
2010	1	2	1		4
2011			1		1
2012	1	2	2		5
2013					0
2014					0
2015				1	1
2016		1	2		3
2017	1				1
2018		1	1		2
2019					0
2020			1		1
TOTAL	**6**	**11**	**12**	**4**	**33**

Authors' count. Sources: Ministry of Foreign Affairs and various embassies and consulates of the People's Republic of China, China Daily, China Internet Information Center, Global Times, People's Daily, and Xinhua

China combined these visits with efforts to curry favor, sometimes quite successfully. When Liu Qi, a member of the Politburo Central Committee, traveled to Iceland for a high-level visit in 2010, Iceland's president at the time, Ólafur Ragnar Grimsson, is reported to have said that "Iceland's government and people sincerely appreciate China's precious support to Iceland in dealing with [the] financial crisis"[150] Former Chinese Premier Wen Jiabao's visit to Iceland in 2012 is argued to have jump-started the two countries' FTA negotiations — which became China's first with a European country — and led to a memorandum of understanding on "joint maritime and Arctic scientific cooperation, including in the areas of climate change and marine monitoring."[151] Observers at the time believed the China-Iceland FTA would enhance China's regional influence and boost its candidacy for observer status in the Arctic Council.[152]

In May 2013, China's high-level visits paid off, and Beijing officially became an observer on the Arctic Council, along with India, Italy, Japan, Singapore, and South Korea. Following the news, Foreign Ministry spokesman Hong Lei stated: "China appreciates and welcomes the decision of the Arctic Council to accept China as an official observer… The aforementioned decisions of the Council will help China to strengthen exchanges and cooperation with relevant parties on Arctic affairs within the framework of the Council, contribute to the work of the Council, and promote peace, stability and sustainable development in the Arctic region."[153] A People's Daily article following the news also outlined China's plans for Arctic cooperation, including strengthening understanding and research of the Arctic, protecting the Arctic environment, and carrying out sustainable development and utilization.[154] Ocean University of China researchers Sun Kai and Wu Junhan emphasized that the change demonstrated that "China's participation in Arctic affairs entered a new stage, namely through 'identity diplomacy' of obtaining Arctic Council observer status and obtaining the basic right to participate in Arctic affairs."[155]

China-led diplomatic efforts

Under President Xi, China has significantly built upon the efforts of the Hu administration to become a more active player in Arctic diplomacy. While high-level Chinese officials have made statements and released documents related to China's Arctic interests, they have also pursued more regional dialogues and positioned the Arctic as a critical part of the Belt and Road Initiative. Each is worth briefly considering below.

China has made greater efforts to enhance diplomatic relations with Arctic countries and reform the Arctic governance system to its liking since joining the Arctic Council as an observer. By taking part in regional dialogues, signing high-level agreements with Arctic countries, and criticizing current Arctic governance mechanisms, China is actively promoting policies that support and encourage greater Chinese participation in Arctic governance. As Guo Peiqing asserts, given changes in the Arctic situation, "the opportunity for China to make a breakthrough in the creation of the Arctic international system is also taking shape."[156]

In recent years, China has helped establish and participate in several regional dialogues on Arctic issues. China and Russia have both participated in the annual China-Russia Arctic Forum [中俄北极论坛], co-sponsored by Ocean University of China and St. Petersburg State University since 2012. This dialogue has become an institutionalized exchange platform between the two countries' scholars and includes in-depth discussions and exchanges on cooperation in the Arctic region.[157] China also established the China-Nordic Arctic Research Center (CNARC) in 2013 to promote an awareness and understanding of Arctic issues and coordinate research among member

institutes throughout the region.[158] Scholars like Marc Lanteigne believe these Track II initiatives have been used by China "as a means for further information collection and as a means to further deepen relations with sub- and non-governmental actors."[159] These Track II initiatives allow Beijing to bypass some of the restrictions of the Arctic Council, and Chinese engagement with the Polar Code (a set of rules put adopted by the International Maritime Organization for ships operating in polar waters) and the Central Arctic Ocean fishing ban (a ban on fishing agreed to by nine states and the EU) sometimes occur through these fora. Together, these efforts allow China to enhance its identity as a regional partner.[160] In addition, in 2016, China, Japan, and South Korea also began having annual high-level dialogues on Arctic issues "to promote exchanges on policies, practices, and experience regarding Arctic international cooperation, scientific research, and commercial cooperation," though little tangible progress has emerged from them.[161]

China has also signed high-level agreements with several Arctic countries. In 2015, China's National Development and Reform Commission (NDRC) signed an memorandum of understanding on cooperation on the Northern Sea Route (NSR) with Russia's Ministry for Development of the Russian Far East.[162] In April 2017, China and Finland signed a joint declaration promoting cooperation in fields such as maritime industry and environmental protection.[163] In addition, China and Norway are in the process of negotiating a free trade agreement, even after a six-year diplomatic freeze that resulted from the Norwegian Nobel Committee awarding a Nobel Peace Prize to Liu Xiaobo.[164]

VI. CHINA'S MILITARY ACTIVITIES

China's Arctic military behavior suggests that strategic motivations underlie some of its Arctic activism. These interests are likely long-term, particularly because an Arctic military conflict in the near future is unlikely. After primarily focusing on scientific research activities over the last few decades, Beijing is increasing its investment in regional military capabilities that enhance its status as a "near-Arctic state" and protect its growing security and commercial interests in the Arctic.

Part of Beijing's interest is of course related to environmental changes in the Arctic, especially melting ice, that have increased China's appetite to explore and take advantage of the Arctic's strategic and commercial benefits. Many Chinese sources have expressed an interest in exploring the region's strategic waterways, especially those that would benefit China's shipping industry. By using the Northern Sea Route along the Russian and Norwegian coasts, China could "reduce the amount of time needed to move commerce out of China to European markets 'by half.'"[165] The Central Arctic route, which also interests Chinese scholars, could be open much sooner.[166] Chinese Arctic scholars have also expressed concerns over the developing security competition in the Arctic, especially between Arctic countries like the United States and Russia.[167] And although Chinese sources have argued that Chinese activities in the Arctic are solely for scientific research and environmental preservation, its Arctic behavior is sometimes more complex. The dispatch of People's Liberation Army Navy vessels to the region, the establishment of Chinese satellite receiving stations, the deployment of new military technologies in the region, and the possible pursuit of Arctic access all suggest strategic motivations may guide China's behavior. These developments signal China's interest in potentially using its military to protect its commercial interests and scientific research opportunities — both of which legitimize China's need to be involved in the Arctic.

PLAN visits and icebreaker construction

The Chinese military has become increasingly confident in its own Arctic capabilities, as seen in People's Liberation Army Navy decision to dispatch vessels to both the U.S. and Arctic countries. In September 2015, the PLAN sent vessels to U.S. waters off the coast of Alaska. Considered the "first ever incursion by Chinese navy boats into the Arctic region," the group included "three surface combatants, an amphibious warship and a fleet oiler" and had just finished participating in a joint military exercise with the Russian military off of Russia's Pacific coast and the Sea of Japan.[168]

"The dispatch of People's Liberation Army Navy vessels to the region, the establishment of Chinese satellite receiving stations, the deployment of new military technologies in the region, and the possible pursuit of Arctic access all suggest strategic motivations may guide China's behavior.

A few weeks after the Chinese fleet entered Alaskan waters, PLAN Fleet Task Force 152 also visited several Arctic countries, including Denmark, Sweden, and Finland, for goodwill visits. The fleet, which included "the guided-missile destroyer *Jinan*, the guided-missile frigate *Yiyang* and the comprehensive supply ship *Qiandaohu*," demonstrated China's enhanced naval capabilities and its interest in the Arctic.[169]

In addition, China has invested in building an icebreaker fleet. The development and deployment in 2018 of the *Xuelong 2*, China's first domestically-built icebreaker, demonstrates China's sustained interest in Arctic presence.[170] China has engaged in more than 10 Arctic expeditions using these icebreakers, allowing it to not only test and demonstrate the effectiveness of its technology, but to also bolster its standing as a "near-Arctic state."[171] There are also some indications that China is considering investment in nuclear-powered icebreakers, with some possibility that this capability aside, the civilian design experience and assistance for this project could be transferred to military vessels too. For example, China National Nuclear Corporation (CNNC) issued a tender for providing services on China's first nuclear-powered icebreaker, and went into detail about the vessel's purpose and requirements. Shanghai Jiaotong University, which has a naval and nuclear engineering program, appears to have won the contract.[172] And others have suggested that the icebreaker will be constructed at China's Jiangnan Shipyard, which also built the *Xuelong 2*. Meanwhile, even as China determines when and how to pursue this capability, it continues to invest in conventional heavy icebreakers.

TABLE 2: CHINA'S ICEBREAKER FLEET

	Launch Date	Origin	Organization	Arctic Expeditions	Notes
Xuelong [雪龙]	1994	Ukraine	PRIC	1-9	Used on most Arctic research expeditions
Xuelong 2 [雪龙2]	2018	China	PRIC	11	China's first domestically built icebreaker
Haibing 722 (Type 272) [海冰722破冰船]	2015	China	PLAN	None	Used for ice investigations, ice breaking, and search and rescue operations
Haibing 723 (Type 272) [海冰722破冰船]	2015	China	PLAN	None	Used for ice investigations, ice breaking, and search and rescue operations
Haibing 723 (Type 210) [海冰723]	1982	China	PLAN	None	
Haibing 721 (Type 071) [海冰721]	1969	China	PLAN	None	Currently in reserve
Haibing 722 (Type 071) [海冰722]	1972	China	PLAN	None	Decommissioned in 2013
Haibing 519 (Type 071) [海冰519]	1980s	China	PLAN	None	Currently active

Sources: CCTV, China Military, The National Interest, Wikipedia, and Xinhua[173]

Dual-use activities

While finding opportunities to cooperate with other Arctic states in research and environmental protection, China has also used these engagements to test its new military technologies in the Arctic environment. Several ostensibly civilian activities may have military implications. In 2007 for example, China's BeiDou Navigation Test Satellite System (BDS) test satellite was launched and was "capable of being received in polar regions."[174] In 2014, China used its BeiDou Navigation Satellite System to rescue the *Xuelong* vessel as it was working to rescue a Russian research vessel in Antarctica. As Anne-Marie Brady writes, "A polar-orbiting Chinese military satellite, part of the BeiDou system, was used to identify ice conditions to guide *Xuelong*'s passage through the ice floes. The SOA and PLA jointly coordinated *Xuelong*'s successful exit from its ice trap."[175] In 2015, China launched an effort to build a satellite ground station in Sweden; in 2017, it sought to do so in Greenland. In addition, China's first polar-observing satellite Ice Pathfinder (BNU-1) began its first Arctic observation mission in June 2020 after in-orbit testing in 2019. According to Chinese state media, the satellite "is expected to achieve full coverage of the Arctic in seven days," supports Chinese Arctic expeditions, and reduces reliance on foreign satellites for data.[176]

China has also tested a range of different possibly dual-use assets within the region that go beyond its routine dispatching of its main icebreaker — the *Xuelong* — to the region to acquire useful skill in operating within the Arctic climate. For example, in 2008, China also developed and deployed "underwater robots" that would help predict sea ice changes during one of its Arctic expeditions.[177] In 2012, China deployed buoys in the Arctic for the first time to observe air-sea interactions in the Norwegian Sea.[178] During the 2015-2016 *Xuelong* expedition to Antarctica, China also tested the Xueying-601, a "fixed-wing aircraft designed specifically for polar flights" in both Antarctica and the Arctic.[179] In November 2015, China revealed its first semi-submersible drilling platform, the Viking Dragon, that was suitable for Arctic conditions. The Viking Dragon was built for Norway by CIMC Raffles Offshoring Engineering Co., Ltd.[180] China deployed the Haiyi autonomous underwater glider, and installed China's first "unmanned ice station in the region" during its ninth expedition in 2018.[181] It debuted its oceanographic research vessel *Xiangyanghong 01* [向阳红 01] during its next expedition, the following year.[182]

Finally, as the report discusses in greater depth elsewhere, China has also demonstrated an interest in establishing scientific and other facilities in the region that might help it maintain Arctic access. China's Yellow River Station in Norway's Svalbard archipelago can accommodate over 25 people, and there have been some relatively low-level disagreements between China and Norway regarding Beijing's use of this facility. A few years after it was constructed, propaganda official-turned-billionaire businessman Huang Nubo tried to purchase land in Iceland for a resort and airfield; failing in this, he turned to Svalbard and finally to Norway itself — all for projects that made little economic sense but would have transferred unprecedently large tracks of land to a state-linked company.[183] In Sweden, China built its first completely China-owned remote sensing satellite data receiving station, covering Europe and the Arctic.[184] In Iceland, China later built a major Arctic station that may well be expanded.[185] And in Greenland, Chinese mining company General Nice Group attempted to purchase an abandoned naval base. Fearful of potentially jeopardizing their country's relationship with the United States, Danish officials ultimately rejected General Nice Group's offer.[186] Yet it has been reported that China discreetly launched a satellite ground receiving station in Greenland just a year later.[187]

VII. CHINA'S SCIENTIFIC ACTIVITIES

Scientific research is a core component of China's Arctic engagement.[188] China has enhanced scientific cooperation with Arctic countries too. Although these activities ostensibly resemble "a relatively low-key, indirect, and research-oriented approach" to the region's affairs, there is more to them than science.[189] Stimson Center scholar Yun Sun writes, "China understands that scientific research offers China not only legitimate access to the Arctic but also a diplomatic channel to enhance cooperation with individual Arctic states."[190] She concludes that these involvements serve "a strategic purpose to legitimize China's growing interests and role."[191] Chinese sources regularly indicate this too, as earlier sections of this report discuss, with many arguing that a country's level of scientific research activity in the Arctic "directly determines its 'right to speak' [话语权] in Arctic affairs."[192]

> **Often asserting itself as a "near-Arctic state" that is directly affected by the changing climate in the Arctic, China has pursued Arctic research opportunities to legitimize its growing involvement in the region and to obtain greater access that has, at times, dual-use implication.**

While these Arctic research activities have given China a channel through which it could communicate and cooperate with Arctic countries, they have also allowed China to justify its expanding role in the Arctic as it calls for "the need for more knowledge and a scientific approach" to combat shared environmental challenges.[193] Often asserting itself as a "near-Arctic state" that is directly affected by the changing climate in the Arctic, China has pursued Arctic research opportunities to legitimize its growing involvement in the region and to obtain greater access that has, at times, dual-use implications.[194] By dispatching research expeditions, testing new capabilities, and establishing research facilities, China is gaining the information and on-the-ground experience necessary to build a presence that will allow it to maintain its interests in the region in the future.

Arctic research expeditions

One of the most prominent examples of increasing Chinese scientific activity in the Arctic has been scientific research expeditions. Since purchasing the *Xuelong* [雪龙] icebreaker from Ukraine in 1993 and upgrading it for polar conditions — and, more recently, launching the *Xuelong 2* icebreaker — China has sent its scientific researchers on several research expeditions to the region.[195] Between June and September 1999, China launched its first Arctic expedition into the Bering and Chukchi Seas, sending more than 50 Chinese polar scientists, which "fully demonstrated the Chinese scientists' strong sense of responsibility for the global changes and environmental problems."[196] In 2003, China launched its second Arctic expedition with Canadian scientists to conduct "oceanic and meteorological research," with deputy director of the National Bureau of Oceanography Chen Lianzeng commenting that the successful trip marked "China's more advanced technology in Arctic expedition."[197] In July and August 2012, the *Xuelong* transited the Northeast Passage and central Arctic Ocean for a trial run.[198] Meanwhile in 2016, China conducted its first China-Russia joint Arctic expedition.[199] According to the 2018 Arctic White Paper, "By the end of 2017, China has carried out eight scientific expeditions in the Arctic Ocean. Using its research vessel and stations as platforms, China has gradually established a multi-discipline observation system covering the sea, ice and snow, atmosphere, biological, and geological system of the Arctic."[200] A list of all of China's Arctic expeditions and their size is contained below:

TABLE 3: CHINESE EXPEDITIONS TO THE ARCTIC, 1999-2020

	Dates	Vessel	Size of Expedition
Expedition 1	June – September 1999	*Xuelong*	124 people
Expedition 2	July – September 2003	*Xuelong*	109 people
Expedition 3	June – September 2008	*Xuelong*	113 people
Expedition 4	July – September 2010	*Xuelong*	122 people
Expedition 5	June – September 2012	*Xuelong*	118 people
Expedition 6	July – September 2014	*Xuelong*	128 people
Expedition 7	July – September 2016	*Xuelong*	128 people
Expedition 8	July – October 2017	*Xuelong*	96 people
Expedition 9	July – September 2018	*Xuelong*	131 people
Expedition 10	August – September 2019	*Xiangyanghong 01*	78 people
Expedition 11	July – September 2020	*Xuelong 2*	Not yet public

Sources: China Daily, China Internet Information Center, ChinaNews, Gate to the Poles, Global Times, South China Morning Post, and Xinhua[201]

China has also expressed its interest in enhancing and testing its research technologies in the Arctic during its expeditions. In the 2018 Arctic White Paper, China stated that "China is committed to improving its capacity in Arctic expedition and research, strengthening the construction, maintenance and functions of research stations, vessels and other supporting platforms in the Arctic, and promoting the building of icebreakers for scientific purposes."[202] As the military section of this report discusses in greater detail, China has tested a variety of capabilities under the general auspices of scientific research. These include underwater robots in 2008; various buoys for monitoring air-sea interactions in 2012; polar fixed-wing aircraft from 2015-2016; an autonomous underwater glider and even a full unmanned "ice station" in 2018, among other capabilities.[203]

Arctic research bases

Sustained Chinese interest in the Arctic is also evident in the establishment of scientific research bases in the region. China built its first Arctic research center Yellow River Station [北极黄河站] at Ny-Ålesund, Norway in 2004. Widely considered as one of China's greatest Arctic achievements, the facility includes a laboratory, offices and sleeping facilities for 25 people.[204]

In 2010, China's Meteorological Administration built a ground receiving station for its satellites in Kiruna, Sweden.[205] In addition, China later opened the China Remote Sensing Satellite North Polar Ground Station near Kiruna in 2016, its first-ever Chinese-owned satellite station anywhere in the world. In an interview with South China Morning Post after the opening, an unnamed Chinese space scientist in Beijing reportedly stated, "The Americans have long regarded Western Europe its backyard, and strictly off limits to China… [The station] now provides China with a formal way in."[206] China has also cooperated with Arctic countries to further its research agenda and expand its footprint in the region. In 2012, China successfully negotiated the construction of the China-Iceland Joint Aurora Observatory (CIAO) at Kárhóll in a remote part of northern Iceland.[207] China opened the station, renamed the China-Iceland Arctic Science Observatory, in 2018.[208] China has also

unsuccessfully pursued additional science stations in Canada, with Yang Huigen stating that, "This is the hope of all the scientists in China, that in the vast area of the Arctic region in Canada, we can build an observatory facility — a facility in Canada."[209] Some however suggest Beijing sought only to collaborate with an existing Canadian facility, though Yang Huigen's comments are difficult to reconcile with that interpretation. Beijing evidently also pursued a similar station in Greenland. Yu Yong, a research fellow at the Polar Research Institute of China, evidently told the Arctic Circle Assembly in 2017 that China wished to open a permanent ground research station in Greenland "as soon as possible" and provided a map with two possible locations for the facility, though Denmark opposed the proposal.[210] Later that year, China evidently held a small ceremony in Greenland to mark the launch of a project to build a satellite ground station in Nuuk.[211]

Arctic research initiatives and dialogues

China has also been pursuing scientific research opportunities through research initiatives involving foreign governments and universities in the region. After joining the International Arctic Scientific Committee (IASC) in 1996 which "marked its more active participation in scientific research in the Arctic," China has continued to demonstrate an active interest in Arctic research through cooperative research initiatives and dialogues.[212] This allows China to cooperate with and help other countries to learn more about the Arctic science and climate, but also gives China the opportunity to become a more integrated player in the region without posing a significant security threat.

Chinese interest in cooperating with other Arctic countries in scientific research grew following the establishment of the Yellow River Station in 2004. While some cooperation was done at the high level during Arctic expeditions, many lower-level exchanges have taken place at the Track-II level. China became the first Asian country to host the Arctic Science Summit Week in 2005 — an achievement frequently highlighted as a milestone in China's Arctic research.[213] Chinese and Canadian scientists have also cooperated through Arctic expeditions and academic seminars like the Dialogue on Canada-Arctic Science Cooperation.[214] In 2019, China and Russia agreed to create the Chinese-Russian Arctic Research Center, with Russian Academy of Sciences Institute of Oceanology Director Alexei Sokov stating: "The center will bring Russian-Chinese scientific cooperation to a new level."[215]

China has also become a more active participant in regional Arctic research initiatives since becoming a member of the Arctic Council. One of the most significant examples of this is the establishment of the China-Nordic Arctic Research Center (CNARC) in Shanghai in October 2013. Funded by the Polar Research Institute and endorsed by the SOA, CNARC aims to promote greater understanding of and research on the region through Track II meetings.[216] Following the Polar Research Institute's initial announcement on CNARC, institute head Yang Huigen said that "China's partnership with Arctic countries in the sector will come naturally as it is part of the widening economic cooperation among countries under the context of globalization."[217] China also sent a high-level delegation to attend the 2015 Arctic Circle Forum in Iceland. Vice Foreign Minister Zhang Ming was in attendance, though Foreign Minister Wang Yi provided his presentation by video, and the group sought to "introduce China's practice in Arctic scientific research, shipping, oil and gas development, and Arctic climate change research at China's national conferences."[218]

VIII. CHINA'S ECONOMIC ACTIVITIES

Beijing has increasingly pursued investment, real estate, and energy cooperation agreements with Arctic countries that encourage Arctic economic prosperity but also further China's economic goals and allow China to expand its influence in the region. Some of these efforts have given China an opportunity to become more active in regional affairs, with many helping China enhance its relationships with Arctic countries, its legitimacy as a near-Arctic state, and its access to Arctic resources and locations. China frequently stresses how its own expertise and experiences, in addition to its Belt and Road Initiative, would encourage greater connectivity and economic development in the region.[219]

The Polar Silk Road

In recent years, China has demonstrated an active interest in exploring Arctic shipping routes for global shipping purposes — an interest that was built explicitly into China's Belt and Road Initiative.

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In 2013, Chinese state-owned shipping company China Ocean Shipping Company Limited (COSCO) conducted the first transit of the Northeast Passage to Europe via the Arctic Sea by a Chinese merchant ship, reportedly serving the company's "needs in developing the new route and searching for market growth points."[220] Industry experts reportedly also believe that this new shipping route is "expected to change China's industrial layout… and reshape the prospects for the global shipping sector," with the route requiring significantly less time than those through passing through the Suez Canal.[221] In 2015, COSCO sent its *Yongsheng* vessel from Europe to China through the Northeast Passage and soon announced that it was planning "regular services through the Arctic Ocean to Europe," with some Chinese sources calling the Arctic route the "golden waterway" for Sino-European trade.[222] COSCO Vice General Manager Yu Zenggang said that this passage "expands China's options, and provides customers with faster delivery," and SOA deputy head Lin Shanqing reiterated that, "as the sea ice in the Arctic Ocean continues to recede, the shipping period along the passage is lengthening. And with improved technology, the northern route will make a big difference to the world trade structure."[223]

In June 2017, China authoritatively linked the BRI with the Arctic by indicating an interest in building a "blue economic passage" [蓝色经济通道] in its "Vision for Maritime Cooperation under the Belt and Road Initiative." This white paper notes, "Efforts will also be made to jointly build the blue economic passage of China-Oceania-South Pacific… Another blue economic passage is also envisioned leading up to Europe via the Arctic Ocean."[224] While this was the first time the Arctic Channel was publicly considered as "one of the three major maritime channels" of the BRI, some believe this has allowed China to pave "the way forward for possible maritime security — possibly military — operations in the Arctic."[225] The 2018 Arctic White Paper again connected the Arctic with the BRI, stating that the BRI, "an important cooperation initiative of China, will bring opportunities for parties concerned to jointly build a 'Polar Silk Road' [冰上丝绸之路], and facilitate connectivity and sustainable economic and social development of the Arctic."[226]

This new strategy is evident in bilateral interactions between China and Russia. In July 2017, Russia and China agreed to jointly build an "Ice Silk Road" to expand bilateral NSR cooperation in areas such as trade, high-speed rail construction, and manufacturing.[227] The "Ice Silk Road," which is used interchangeably with the "Polar Silk Road," has been widely considered as a highlight of Sino-Russian cooperation in the Arctic and would span North America, Asia, and Western Europe, including both the Northwest (along the North American Arctic coast) and Northeast Passages according to Chinese sources, as well as a possible Central Arctic Route that could be open even sooner.[228] Chinese media has also referred to the opening of the Northeast Passage as a key driver in its construction of its Ice Silk Road, and stressed the Blue Economic Channel between the Arctic and Europe was "the core of the 'Polar Silk Road.'"[229]

The Sino-Russian plan was originally discussed in 2015 and has been promoted by both China and Russia.[230] While the plan, also known as the Polar Silk Road, is expected to "break new ground" in Sino-Russian relations, a blue paper published by Social Sciences Academic Press and Ocean University of China argues that the initiative represents a "new growth point for China and its participation in regional affairs [that] will boost the integration of Eurasian economies.[231] The two countries' Yamal liquefied natural gas (LNG) project, the "first large-scale overseas project implemented after the proposal of the 'Belt and Road' initiative and the core project on the 'Polar Silk Road,'" is one of the most prominent bilateral activities along the Polar Silk Road, with China's Silk Road Fund holding 9.9% of shares, and "marks a reversal of fortune for China, which has long had difficulty breaking into Russian energy projects and the development of Arctic natural resources."[232]

Although Russia has been China's primary partner in the operationalization of the Polar Silk Road strategy, Chinese sources have also emphasized its desire to "work with all parties" along the Northwest and Northeast Passage.[233] A few months after Xi visited Finland to begin "a new stage of bilateral relations" in 2017, Finland became the first Nordic country to join China's BRI.[234] China has also promoted the BRI through regional governance institutions, as seen when a theme from a 2018 Arctic Circle meeting was "China and the future of the Arctic Belt and Road."[235] Furthermore, Chinese scholars like Jiang Yinan from CIIS argue that the Polar Silk Road "is limited within the current bilateral framework, and it is necessary to further develop multilateral cooperation."[236] Accordingly, Yang Jian, vice president of the Shanghai Institute of International Studies, notes the cooperative aspects of the Polar Silk Road, arguing that it demonstrates "various development policies formulated by Arctic countries, relevant international organizations, and stakeholders based on Arctic climate and environmental changes, as well as economic and social development needs."[237] The Polar Silk Road is, in from this perspective, a platform that can encompass a range of Arctic interests. The question of whether this effort could turn into an alternative pole for Arctic governance remains an important one.

China's development of the Polar Silk Road is buttressed by strategic motivations. As Lin Boqiang, the dean of the China Institute for Studies in Energy Policy at Xiamen University, writes, the Polar Silk Road "could be considered as part of an ambitious strategy to change China's land and sea connections to Europe and the world."[238] He adds that, "if it succeeds, it will not only contribute to the economic and social development of the Arctic region, but it also could possibly change global trade and economic patterns."[239] Chinese sources have also emphasized the importance of Arctic waterways, with one stressing that in the two years since the policy was announced, the Polar Silk Road "with the Arctic waterway as the core has become a new highlight of the interconnection between Eurasia."[240]

Infrastructure and dual-use concerns

Whether under the auspices of the Polar Silk Road or as individual initiatives, China has sought to invest large sums in major projects across the Arctic, particularly in infrastructure and energy.

China's investments in infrastructure are particularly notable, and at some points have sparked concern. For example, in 2011 Huang Nubo sought to purchase 100 square miles of Icelandic land with the backing of the state-run China Development Bank to build a golf course — and proposed airfield — on some of Iceland's windiest land where golf would be unplayable. Many saw the effort as motivated by a desire to achieve access to strategic locations, and the investment was blocked.[241] In 2014, Huang then sought 200 square kilometers in Svalbard, a deal that also failed given concerns about the quantity of land and the unclear motivations of the investor.[242]

In 2016, General Nice Group — a Chinese mining and trading firm controlled through a Hong Kong entity — attempted to buy an abandoned naval base in Greenland built by the United States in 1942.[243] "A dismantled base plagued by environmental and administrative issues surely makes no sense as an asset for a beleaguered coal and iron miner," noted Jichang Lulu, "The only plausible motivation is that General Nice tried to buy the base reacting to a perceived or explicit interest for it from Chinese state entities."[244] Denmark intervened to scuttle the sale. In 2018 and 2019, Chinese state-owned enterprises like China Communications Construction Company bid to build two to three airports in Greenland largely financed by Chinese state banks. The Chinese firm was one of six international bidders, but the possibility that they would win the bid was enough to prompt opposition from Washington and Copenhagen, which ended the bids.[245]

In 2017, a Hong Kong entrepreneur purchased a Swedish submarine base that the military had previously sold to civilians in 2004, though he promised to lease it back for free to the Swedish Navy, to not charge entry and exit fees, and to leave it otherwise untouched, an unusually generous offer but one clearly disadvantageous for Swedish security.[246] The Swedish government eventually repurchased it, according to some reports.[247] Elsewhere in Sweden that same year, a Chinese consortium bid to build what would be Scandinavia's largest port, winning support from the municipality that would host it before engaging the central government. Research by Jojje Olsson and Jichang Lulu suggested the project had links to China's government. The owner and chairman of the Chinese consortium, Gao Jingde (高敬德), had been a member of the Chinese People's Consultative Conference (CPPCC) for decades, founded the Hong Kong chapter of the China Council for the Promotion of Peaceful Reunification of China which is linked to the United Front Work Department (a Chinese Communist Party organ involved in intelligence gathering and influence operations domestically and abroad).[248] The organization also has connections to the Chinese military — managing for a time all the 18 plots of land on which China's military operates in Hong Kong.[249] The bid was kept quiet to avoid scrutiny, but once it was leaked, public opposition effectively ended the project.

China has also sought to connect the Arctic to China through rail as part of the Polar Silk Road. As China's Ambassador to Finland Chen Li put it, "Although Finland is a Nordic country, it is one of the nearest paths from China to Europe. Therefore, cooperation on connectivity under the Belt and Road Initiative could be fruitful. China and Finland also face broad prospects for cooperation in the Arctic shipping-lane. In the future, we can even foresee the idea of 'Ice Silk Road' and 'Digital Silk Road.'"[250] In 2019, Chinese firms became involved in a $17 billion rail project connecting Finland to Estonia which could

later facilitate connections into Eurasia — though the project has been delayed — and other projects that could be part of a Polar Silk Road are also under consideration.[251]

China's commodity investments

China has rapidly expanded its Arctic energy and mining initiatives to become a more engaged and influential economic player in the region. Some of these projects have been quite successful, but a review of China's major investments in the region reveals that many have a more mixed track record.

Over the last decade, China's investments in energy and commodities have increased significantly, leading to the construction of joint Arctic natural gas pipelines, commercial agreements with Chinese energy companies, and investment in ongoing Arctic energy projects. They also give China important interests in the region that it may wish to protect in the future.

The boom began in earnest a few years after the global financial crisis when commodity prices were higher than today. By 2012, for example, Sinopec had purchased a 49% share in Canadian company Talisman Energy's North Sea energy business.[252] Then, in early 2013, China National Offshore Oil Corporation (CNOOC) acquired Canadian energy company Nexen for $15 billion, which Marc Lanteigne argues "solidified Chinese interests in the potentially lucrative oil sands of northern Alberta, but also resulted in a tightening of regulations in Ottawa regarding purchases of oil sands assets by state-owned enterprises out of concern that foreign governments would gain too much control over a primary Canadian resource."[253] That same year, China Offshore Oil Engineering Company (COOEC) and Norwegian engineering and construction company Kværner signed a 10-year Strategic Cooperation Agreement for global business development and later established the joint venture Kværner COOEC Engineering & Technology Ltd in 2014.[254] In the announcement, COOEC President and CEO Zhou Xuezhong said, "COOEC recognizes Kværner as the ideal partner within international deep water and harsh environment projects to support COOEC's ambition domestically and internationally. Kværner will bring international management, tools and working methods while COOEC is providing a team of experienced offshore engineers."[255] In 2017, China also expressed an interest in investing in Alaskan LNG export projects. After Xi's stopover in Anchorage to meet with Alaska Governor Bill Walker, Governor Walker visited China later that year, leading to American and Chinese companies signing a $43 billion agreement to explore Alaska's LNG resources — though the plan is now on hold.[256] More recently, China National Petroleum Corp (CNPC) and CNOOC expressed interest in bidding for oil and gas blocks in Greenland in 2021.[257]

Some of China's largest efforts are in Russia, particularly the Yamal LNG project. Known as the "energy pearl" in the Arctic Circle and "the important pivot of the so-called 'Silk Road on Ice,'" the $27 billion project was initiated in 2013 and launched in late 2017, becoming the world's largest LNG project in the Arctic.[258] A People's Daily article notes the project is "the world's largest natural gas development, liquefaction, transportation, and sale project in the Arctic region, and is also the first large oversea energy project since the Belt and Road Initiative was proposed in 2013."[259] The project, funded by Russian gas company Novatek, French oil and gas company Total S. A., and CNPC, is also expected to significantly reduce travel time for LNG between Europe and Asia.[260] In late 2019, the two sides also established the China-Russia east-route natural gas pipeline, which is estimated to "provide China with 5 billion cubic meters of Russian

gas in 2020" and was heralded by Xi as "a landmark project of China-Russia energy cooperation and a paradigm of deep convergence of both countries' interests and win-win cooperation."[261] By participating in such joint projects, China has been able to enhance its strategic partnership with Russia and ensure it has the energy supply necessary to promote sustainable development at home.[262]

China has also become more active in mining, particularly in Canada and Greenland. Among the most significant of these projects is by China's MMG Ltd, which made enormous investments in Nunavut's Izok Corridor.[263] Other Chinese firms and state-owned enterprises took minority or majority positions in some of Canada's mining giants. For example, China acquired a zinc mine in 2008, a nickel mine in 2010, and an iron mine in 2012.[264] Recently, China's Shandong Gold Group sought to purchase a Canadian mining company, with its chairman Chen Yumin declaring that the acquisition would help the company "become one of the world's top five producers of gold by 2025." Some felt that China was taking advantage of the company's low share price, which had been higher a year earlier, and the deal is now running into challenges.[265]

In Greenland, China launched the Kvanefjeld Project, which will mine uranium and rare earth elements in partnership with an Australian firm which is the majority partner, though China National Nuclear Corporation will be involved in some of the processing. Another joint venture between Chinese and Australian firms is underway for zinc mining at Greenland's Citronen Fjord. A third project involves the mining rights for Greenland's iron deposit at Isua, which are now held by General Nice Group.[266]

It is notable that many Chinese investments have stalled or in some cases failed to live up to their promises (see Table 4). In some cases, disappointed Chinese investors have sued for redress or complained to Arctic governments about the terms of their agreements. In other cases, Chinese companies encountered financial or legal difficulties at home. Some entities have terminated or withdrawn from their partnerships. This pattern is evident in both energy and in mining.

First, with respect to energy, many Chinese projects ended poorly. For example, shortly after China became a member of the Arctic Council and signed a free trade agreement with Iceland, CNOOC and Icelandic energy firm Eykon signed an agreement and were granted a license for oil and gas exploration in the Dreki region, "marking the first time the Chinese firm had embarked on a project so far north."[267] CNOOC ultimately pulled out of the agreement in early 2018, finding limited deposits, though at the time of its initial investment five years earlier it had been hailed as "the first Chinese firm licensed to look for oil in the Arctic, a landmark step for overseas energy exploration for the world's second-largest economy."[268] Sinopec's 2012 investment in Talisman, among China's first in the region, ultimately ended in arbitration, with Sinopec claiming years later that it had overpaid on its $1.5 billion investment in 2012 and demanding $5.5 billion in compensation.[269] China's nearly $1 billion investment in Albertan energy in 2010 decreased to one-tenth its value, though industry observers suggest poor market timing as the culprit.[270] A 2016 agreement for Chinese Sunshine Kaidi New Energy Group to invest in a biodiesel plant in Finland was also put on hold due to Sunshine Kaidi's financial problems.[271] And suggestions China must invest $40 billion in Alaskan LNG now also seem unlikely to be realized.[272]

Second, with respect to mining, China has sometimes seen mixed results. One of China's first investments in Canadian commodities — a zinc mine in Yukon acquired by China's Jinduicheng Molybdenum Group (JDC) — ended disastrously with the mine losing $100

million in year and seeking protection from creditors, who received roughly only 11 cents for each dollar owed to them despite JDC's ample resources. Moreover, JDC essentially refused to clean up the closed mine, leaving behind an environmental disaster that will cost more than $35 million to clean up. The company pled "guilty to five charges related to violating conditions" for its mining license and for "failing to comply with an inspector's directions to remediate the site."[273] A Yukon News columnist urged attention to the issue, arguing, "It is hard to picture a big American or European mining multinational risking the reputational damage involved in letting one of their subsidiaries leave a big unresolved environmental mess on the front pages."[274] Other mines also encountered difficulty, with Wuhan Iron and Steel Co. (WISCO) investments in iron falling into default.[275] Chinese officials from the China Mining Council have complained to Canada about their mining investments, arguing in the words of the Canadian ambassador they spoke with, that "the [Canadian] provinces did not disclose the full picture about the mining environment, namely the risks and challenges, and that this led to misinformed decisions... the Canadian side [needed] to be more comprehensive and forthcoming when presenting the mining environment in various regions of Canada. The obstacles should be more clearly flagged."[276] Chinese firms complained that they were unable to bring Chinese laborers to Canada and were left relying on Canadian labor. China's investments in Greenland are more recent and somewhat less troubled. Even so, one of China's major investments in Greenland — General Nice Group's acquisition of the Isua iron field — has been stalled for years as General Nice Group experiences legal and financial difficulties in China amidst falling iron prices.

TABLE 4: CHINESE ENERGY AND INFRASTRUCTURE PROJECTS IN THE ARCTIC

Project	Type	Time period	Chinese financier / partner	Value in USD	Recipient	Status
Yukon Zinc acquisition by Jinduicheng Molybdenum Group (JDC)	Acquisition	2008	Jinduicheng Molybdenum Group	Unknown	Canada	Failed (environmental disaster)
Jilin Jien Nickel Industry Company acquires Canadian Royalties Inc. for nickel mining	Acquisition	2010-2011	Jilin Jien Nickel Industry Company	$800 million	Canada	Ongoing
Northern Alberta heavy oil project (Peace River Oil Partnership, PROP)	Energy exploration	2010 - present	China Investment Corp	$817 million	Canada	Failing
Wuhan Iron and Steel Co. (WISCO) acquired the Lac Otelnuk iron mine	Acquisition	2012	WISCO	$140 million	Canada	Failing (In default)
Talisman North Sea Stake	Acquisition	2012	Sinopec	$1.5 billion	Canada	Failed (arbitration)
Nexen sale	Acquisition	2013	CNOOC	$15.1 billion	Canada	Ongoing

Project	Type	Time period	Chinese financier / partner	Value in USD	Recipient	Status
COOEC-Kværner Strategic Cooperation Agreement	Global business development	2013	COOEC	Unknown	Norway	Ongoing
CNPC and Rosneft deals on Arctic seas exploration	Energy exploration	2013	CNPC	N/A	Russia	Ongoing
Iceland gives China its first Arctic oil exploration license	Energy exploration	2013 - 2018	CNOOC	N/A	Iceland	Failed (Withdrawal)
Sichuan Road and Bridge Group builds the Halogaland Bridge, the second-largest in Norway and the longest in the Arctic Circle	Infrastructure	2013 - 2018	Sichuan Road and Bridge Group	Unknown	Norway	Completed
Yamal LNG Project	Energy exploration	2013 - present	Export-Import Bank of China and the China Development Bank	$12 billion	Russia	Ongoing
Gazprom signs a deal to deliver Russian gas to China	Energy exploration	2014 - present	CNPC	$400 billion	Russia	Ongoing
Investments in the Kvanefjeld rare earth project	Energy exploration	2014	China Nonferrous Metal Industry (CNMI)	Unknown	Greenland	Ongoing
Isua iron ore field	Acquisition	2015	General Nice Group	$2 billion	Greenland	Failed (Stalled)
Greenland begins talks with Sinohydro, China State Construction Engineering, China Harbour Engineering about building airports, ports, and infrastructure development	Infrastructure	2015	Unknown	TBD	Greenland	TBD
Offers to buy an abandoned naval base in Gronnedal	Infrastructure	2016	General Nice Group	N/A	Greenland	Failed

Project	Type	Time period	Chinese financier / partner	Value in USD	Recipient	Status
Purchase of an eighth of Greenland Mineral and Energy stocks	Acquisition	2016	Shenghe Resources	Unknown	Greenland	Ongoing
Biodiesel plant in Finland	Infrastructure	2016	Sunshine-Kaidi New Energy Group	$1.1 billion	Finland	TBD
Alaska LNG Project	Infrastructure	2017	Unknown	Unknown	U.S.	Failed
Ironbark (Australia) expresses interest in working with China Nonferrous Metal Mining Group to build and finance the Citronen Fjord iron and zinc mine in Greenland	Energy exploration	2017 - present	China Nonferrous Metal Mining Group	TBD	Greenland	Ongoing
China Railway International Group, China Railway Engineering Company, and China Communications Construction Company will build a Helsinki-Tallinn tunnel	Infrastructure	2018 - present	Unknown	TBD	Finland	Delayed
China Communications Construction Company (CCCC) puts forward a bid to build airports in Greenland	Infrastructure	2018	CCCC	Unknown	Greenland	Failed
CGN acquires 75% of Swedish wind farm from Australia's Macquarie Group and GE Energy Financial Services	Acquisition	2018	CGN	Unknown	Sweden	TBD
Equinor signs preliminary agreement with CNPC	Energy exploration	2018	CNPC	N/A	Norway	Ongoing
Equinor and China Power International Holding (CPIH) sign MOU on offshore wind cooperation in Europe and China	Energy exploration	2019	China Power International Holding (CPIH)	N/A	Norway	Ongoing

Project	Type	Time period	Chinese financier / partner	Value in USD	Recipient	Status
China National Chemical Engineering and NNK agree to cooperate on infrastructure development for the Payakha oilfield	Energy exploration	2019	CNCE	Unknown	Russia	Ongoing
China-Russia East Route Natural Pipeline	Energy exploration	2019 - present	TBD	TBD	Russia	Ongoing

Sources: Anchorage Daily News, Anne-Marie Brady, CBC News, China Daily, China Dialogue Ocean, Clingendael, CNN, Jamestown Foundation, Kaidi, Kværner, NPR, Nunatsiaq News, Offshore Energy, Over the Circle, Reuters, Xinhua, Yicai Global, and Yukon Zinc Corp[277]

IX. CONCLUSION

The Arctic policies outlined in China's high-level statements and internal discourse clearly convey the CCP's desire for China to become a "polar great power" that will be more influential in regional affairs. Emphasizing China's position as a "near-Arctic state," these externally facing documents have consistently stressed China's intention to promote the "sustainable development of the Arctic" and cooperate to "address the challenges brought by the changes in the region."[278] Such sources also frequently emphasize China's peaceful intentions as a "responsible major country," with one source stressing that China "does not want to see tensions… and does not want to build a sphere of influence in the Arctic."[279]

China's internal discourse and activities, however, confirm that China views the Arctic as an area of competition among the great powers in the international system. China's efforts to pursue scientific exploration, become more active in Arctic governance, develop military capabilities for Arctic conditions, and invest in Arctic infrastructure projects all aim to enhance Beijing's strategic position and "right to speak" in the region. Despite growing criticism from key Arctic states, the rising intensity of China's efforts and coercive actions show that Beijing will continue to take advantage of what it sees as an opportunity to shape this "new strategic frontier" to its liking for the foreseeable future.

ENDNOTES

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