

2013

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Recommended Citation

Rainwater, Shiloh (2013) "Race to the North: China's Arctic Strategy and Its Implications," *Naval War College Review*: Vol. 66 : No. 2 , Article 7.

Available at: <https://digital-commons.usnwc.edu/nwc-review/vol66/iss2/7>

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RACE TO THE NORTH

China's Arctic Strategy and Its Implications

Shiloh Rainwater

The Arctic, during the Cold War a locus of intense military competition between the United States and the Union of Soviet Socialist Republics, is rapidly reemerging as a geostrategic flash point. As accelerating climate change melts the Arctic's perennial sea ice, littoral as well as peripheral actors are preparing to exploit emergent economic and strategic opportunities in the High North. Although the possibility of armed conflict over Arctic resources has been somewhat discounted, a fair amount of saber rattling in recent years among the "Arctic Eight"—the United States, Russia, Canada, Denmark, Finland, Iceland, Norway, and Sweden—has given rise to the notion that circumpolar security actors may be priming for a "new kind of Cold War" in the North.¹ Russia, for example, has warned that countries could be at war within a decade over resources in the Arctic region.²

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Naval War College Review, Spring 2013, Vol. 66, No. 2

While a substantial body of literature has addressed the issue of Arctic sovereignty disputes and the potential for conflict between the circumpolar states, much less attention has been devoted to the "globalization" of these affairs. Non-Arctic states, including China, India, and Italy, as well as the European Union collectively, are making preparations to exploit a seasonally ice-free Arctic, thus complicating the Arctic's already fragile security environment. As the Finnish foreign minister stated in 2009, "The Arctic is evolving from a regional frozen backwater into a global hot issue."³

Most notable among these external actors is the People's Republic of China (PRC), which has maintained a vast, well-funded Arctic research apparatus since the mid-1990s and has invested heavily in Arctic-resource projects in recent years. For China's energy import-dependent economy, Arctic resources and sea-lanes present a welcome strategic remedy. In light of the nation's growing Arctic interests, Chinese leaders have begun to promulgate the notion that China is a "near-Arctic state" and a "stakeholder" in Arctic affairs.⁴ Notwithstanding China's assertiveness with respect to its Arctic interests, important questions remain as to how it will pursue these ambitions, as it possesses neither Arctic territory nor the ability to vote on official policy at the Arctic Council.⁵ Cognizant of these inherent disadvantages, the PRC is leveraging its economic, political, and diplomatic might in order to secure for itself a say in Arctic affairs.

This article analyzes the extent to which the PRC is pursuing foreign policies, whether "status quo" or "revisionist," in the Arctic, in an attempt to discern whether a "China threat" will materialize in the High North. While China's overall position as a status quo or revisionist power is an issue beyond the scope of this article, analysis of China's Arctic strategy can be profitably couched in this terminology. Traditionally, status quo states are considered those that have "participated in designing the 'rules of the game' and stand to benefit from these rules," while revisionist states are those that "express a 'general dissatisfaction' with their 'position in the system'" and have a "desire to redraft the rules by which relations among nations work."⁶ Status quo states aim to maintain the balance of power "as it exists at a particular moment in history";⁷ revisionist nations resort to military force to "change the status quo and to extend their values."⁸

Recent scholarship has expanded on this delineation, suggesting that rather than a dichotomy, the status quo/revisionist distinction is more usefully considered a complex spectrum that takes into account states that fall somewhere between its extremes. For example, in his pioneering 2003 study on China, Alastair Iain Johnston proposed five levels of analysis by which to determine whether an actor is outside a status quo "international community." Moving from the least to the most threatening with respect to the status quo, a non-status quo actor either minimally participates in the regulatory institutions of an international community; participates in these institutions yet breaks the rules and norms of the community; participates in these institutions and temporarily adheres to the community's rules and norms yet attempts to "change these rules and norms in ways that defeat the original purposes of the institution and the community"; exhibits a preference for a "radical redistribution of material power in the international system"; or dedicates itself to realizing such a redistribution of power "and to this end military power is considered to be a critical tool."⁹ The following analysis suggests that China's Arctic strategy is mildly revisionist, as it registers

in the middle of Johnston's spectrum, posing both challenges and opportunities for cooperation with the circumpolar states.

Two recommendations are ultimately presented. First, the circumpolar states must be careful not to misread and in turn to overreact to China's strategy, so as to avoid conflict. Illuminating the status quo and revisionist strains in China's strategy will contribute to informed policy debates and help avert such miscalculation. Second, because there is strong potential for cooperation with China on Arctic development and governance, the Arctic states should seek to incorporate China's interests into their policy calculus. This article will draw attention to those interests and opportunities for cooperation.

FUELING THE DRAGON: ENERGY INSECURITIES

Will the twenty-first century belong to China? In strictly economic terms, the shift of global power to China seems inevitable. Since Deng Xiaoping's 1978 market reforms, China has sustained impressive 8–10 percent annual gross-domestic-product growth rates and is projected by the International Monetary Fund to overtake the United States by 2016.¹⁰ According to one scholar, by 2030 China's economic dominance relative to American decline will yield a near-unipolar world in which China is supreme.¹¹ In many respects, the PRC is already economically dominant. China acts as the world's creditor, is the world's biggest export market, and is the world's largest manufacturing nation. In light of its status as an economic giant despite its being a relatively "poor" nation, one columnist has referred to the PRC as a "premature superpower."¹²

Despite this rather impressive outlook, sustaining China's economic momentum poses a considerable strategic problem for the Chinese Communist Party (CCP). Because of the nation's limited domestic-resource base, China's breakneck industrialization, urbanization, and booming transportation and manufacturing sectors have bred massive reliance on foreign resources, particularly petroleum. As the world's second-largest importer of goods and second-largest oil consumer, China fears that supply disruptions or shortages could derail its continued economic momentum, thus causing social unrest and threatening the survival of the regime. Chinese leaders, tremendously anxious at the prospect of such an economic downturn, have identified oil as a component of China's national economic security since 2003.¹³

Since China became a net oil importer in 1993, PRC dependence on foreign energy markets has rapidly increased. Oil consumption is currently estimated at 9.9 million barrels per day, half of which is imported.¹⁴ Long-term projections yield little consolation in this regard. According to the International Energy Agency, by 2020 China will become the world's largest net importer of oil, with net imports reaching thirteen million barrels per day by 2035.¹⁵ China also suffers

from a rapidly increasing natural-gas import gap, and its demand is projected to increase by 6 percent annually through 2035.¹⁶

Chinese security analysts and policy makers express tremendous concern over this “excessive” dependence on foreign energy, the vast majority of which relies on seaborne transportation.¹⁷ Foreign reliance presents a number of strategic issues for the PRC, particularly vulnerability. For example, half of China’s oil originates in the politically unstable Middle East and subsequently flows through foreign-controlled sea lines of communication (SLOCs).¹⁸ Of particular concern is the safety of supplies transiting the Strait of Malacca, which connects the Indian Ocean and South China Sea. With 85 percent of its oil imports passing through the narrow 1.5-mile-wide strait, China worries that its strategic lifeline is vulnerable to a hostile shutdown by the littoral states (Indonesia, Malaysia, and Singapore). In response to this “Malacca dilemma,” President Hu Jintao has called for new strategies to alleviate the PRC’s vulnerability, reflecting deep-seated anxieties within the CCP over the security of China’s energy imports.¹⁹

China also worries that many of its vessels sail through pirate-infested waters.²⁰ In 2010 piracy attacks in the Malacca Strait accounted for 15.7 percent of the worldwide total.²¹ Somali pirates are also a major concern for ships sailing toward the Suez Canal through the Gulf of Aden, where as a consequence ship-insurance premiums have skyrocketed.²² So severe has the threat of piracy become that some shipping companies have begun to divert their vessels to the longer and more expensive route around the southern tip of Africa.

Since China’s economic momentum depends significantly on long-term access to critical resource inputs, the primary objective of China’s foreign policy is resource acquisition. China’s energy-import dependence, therefore, has profound implications for its international behavior and is the subject of considerable external and internal speculation. The debate surrounding China’s resource strategy is framed by competing archetypes of China’s rise.²³ Analysts who view China as a status quo power argue that PRC foreign-oil dependence is a vehicle for greater international cooperation and integration. For those who view China as a revisionist state, however, oil dependence is a catalyst for conflict.

Resource diplomacy literature lends credence to the first perspective. China’s resource-diplomacy strategy aims to diversify its oil supply away from politically and geographically volatile regions by fostering closer ties with major oil-producing states around the world.²⁴ Since 1992, this strategy has enabled Chinese oil companies to invest heavily in foreign oil-infrastructure projects, acquire equity in oil industry assets, and secure oil supply contracts with foreign firms. The state oil company PetroChina is noteworthy in this regard, having spearheaded seventy-five projects in twenty-nine states around the world by 2009.²⁵

Moreover, China is particularly well positioned to inject large amounts of capital into foreign energy markets, as it is flush with foreign-exchange reserves. China's hope is that promoting economic interdependence will preclude oil suppliers from withholding oil exports in the event of an international crisis.

China's resource diplomacy also seeks to ensure the safety of its energy imports by strengthening ties with governments along major sea routes. From the Persian Gulf to the South China Sea, China has secured access to commercial port and airfield facilities through diplomatic arrangements in order to provide a support network for its maritime assets in militarily distant regions. Despite some fears in New Delhi that China is encircling the Indian Ocean with this "string of pearls" strategy, the reality appears more benign and less coordinated;²⁶ there is no evidence that China is establishing a system of overseas military bases. Instead, China's strategy more closely resembles the creation of what American officials refer to as "places," as opposed to bases.²⁷

In contrast, rising "energy nationalism" in China, defined by assertive governmental action to obtain and protect energy supplies, has spurred the modernization of the Chinese navy in recent years to deter rival claimants from resource-rich regions and to provide security for the nation's maritime supply routes.²⁸ This buildup gives rise to the notion that foreign-oil dependence could lead to conflict rather than cooperation. Underlying Beijing's naval modernization is a shift in Chinese strategic culture, which has become imbued by the doctrine of early-twentieth-century American naval strategist Alfred Thayer Mahan, who argued that the ability to protect commerce by engaging naval forces in decisive battle has always been a determining factor in world history.²⁹ In 2010 Rear Admiral Zhang Huachen alluded to this strategic imperative, stating, "With the expansion of the country's economic interests, the navy wants to better protect the country's transportation routes and the safety of our major sea lanes."³⁰

China's new strategy represents a shift from coastal to "far sea" defense.³¹ According to Beijing's 2008 defense white paper, "the Navy has been striving to improve in an all-round way its capabilities of integrated offshore operations, strategic deterrence and strategic counterattacks, and to gradually develop its capabilities of conducting cooperation in distant waters."³² Since 1993, the budget of the People's Liberation Army (PLA) has increased by an average of 15 percent annually, with a significant portion allocated to the navy in recent years. Included in China's blue-water naval buildup are antiship ballistic missiles, aircraft, under-sea mines, optical satellites, surface ships, and a sophisticated submarine force that could outnumber the U.S. Navy's within fifteen years.³³ China also recently acquired its first aircraft carrier, an important symbol of power projection in its own right.³⁴ To date, the most substantial achievement of the PLA Navy (PLAN)

in terms of far-sea missions has been its deployment of warships to conduct counterpiracy operations in the Gulf of Aden since late 2008. While in itself a limited exercise of power projection focused on the protection of commercial interests, this deployment is emblematic of China's growing interest in far-sea operations and could portend future naval missions to protect distant interests more generally.

In sum, China's global energy strategy relies on both diplomatic and military components. Energy insecurity has driven the PRC to diversify oil suppliers and modernize its navy to provide security of distant sea lines of communication (SLOCs). As China looks north to the Arctic Circle to alleviate further its energy needs, Chinese officials will continue to pursue this hybrid strategy, emphasizing oil diplomacy while analyzing the potential for PLAN operations to protect emergent Arctic trade routes.

GRAND STRATEGY AND FOREIGN POLICY OBJECTIVES

Analysis of Chinese grand strategy literature offers key insights into China's foreign-policy goals and international behavior. During the 1990s, improvements in China's military capabilities led the United States to identify China as the greatest modern threat to American primacy.³⁵ In response, under Jiang Zemin's leadership, China began to focus on dispelling fears of the "China threat," characterizing its rise as peaceful and representing itself as "a responsible great power." Successive generations of Chinese leadership have pursued this strategy in differing ways, as when China adopted the term "Peaceful Development" instead of "Peaceful Rise" in 2004.³⁶ The central logic of China's grand strategy has remained the same, however, since 1996, when Chinese leaders reached a consensus on a foreign-policy line. According to one analyst, China's grand strategy is designed to "sustain the conditions necessary for continuing China's program of economic and military modernization as well as to minimize the risk that others, most importantly the peerless United States, will view the ongoing increase in China's capabilities as an unacceptably dangerous threat that must be parried or perhaps even forestalled."³⁷ In short, China's grand strategy aims to facilitate its rise to great-power status without provoking a counterbalancing reaction.

Empirically, China's grand strategy attends first to perceived threats to core interests.³⁸ In 2004 Chinese diplomacy incorporated "core interests" into its lexicon and has since utilized the term assertively to pressure foreign actors to respect the PRC's agenda.³⁹ Over the years, China's official core interests have varied greatly, ranging from national reunification to even human rights, the most explicit concerns being "sovereignty and territorial integrity."⁴⁰ Also, and for the first time, the 2011 white paper *China's Peaceful Development* explicitly identified the nation's political system as a core interest, along with economic and

social development.⁴¹ Regime maintenance, economic development, and territorial integrity are therefore the PRC's top strategic priorities informing its foreign policy decisions.

While officially China is committed to peaceful development in order to achieve great-power status and usher in an era of multipolarity, China's actions with respect to preserving the integrity of its core interests seem to complicate that narrative.⁴² In particular, China has not hesitated to employ naval force to enforce its sweeping territorial claims in the resource-rich South China Sea, claims that extend its borders more than a thousand miles from the mainland—substantially farther than the two-hundred-nautical-mile limit of the United Nations Convention on the Law of the Sea (UNCLOS).⁴³ Examples include the 1974 battle of the Paracel Islands, the 1988 Johnson Reef skirmish, and the 2005 scuffle with Vietnamese fishing boats near Hainan Island, as well as a series of recent clashes over sovereignty between units of the PLAN and vessels from Vietnam, South Korea, Japan, and the Philippines. According to PLA doctrine, “If ‘an enemy offends our national interests it means that the enemy has already fired the first shot,’ in which case the PLA’s mission is ‘to do all we can to dominate the enemy by striking first.’”⁴⁴

Under this logic, China could resort to armed force to maintain its economic and political core interests. At the heart of China's political culture is a deep insecurity over sustaining the nation's rapid modernization, pointing to an intrinsic relationship between China's core interests of regime maintenance and economic development, on one hand, and the CCP's legitimacy, on the other, the latter resting on the party's ability to keep unemployment low while satisfying the Chinese people's demands for rising living standards.⁴⁵ Economic health is therefore the cornerstone of social stability and, subsequently, CCP legitimacy. To maintain social harmony and hold on to power, the CCP could utilize military force to secure economic interests in the event of a supply disruption or shortage. As demonstrated by China's brutal suppression of the Tiananmen Square protests in the spring of 1989, the CCP will resort to any means necessary for the stability of its regime.

Chinese grand-strategy literature, in short, suggests that China's Arctic strategy has the potential to lead to conflict, albeit under limited circumstances. If at some point China's economic momentum becomes heavily reliant on Arctic resources and shipping lanes, a supply disruption could lead the PRC to deploy significant naval forces to the region to secure its interests in order to avert domestic social unrest. Still, it will be quite some time before the Arctic could become a key strategic theater for China's economic interests, providing an opportunity for the Arctic states to formulate in advance policy in response to China's entrance into the High North.

CHINA LOOKS NORTH

China's global resource strategy has led the PRC to the far corners of the earth, from Venezuelan oil fields to energy-rich Siberia. Now, as a consequence of accelerating climate change and the melting of the polar ice cap, China is increasingly looking to the Arctic Circle for new resource-extraction and maritime-shipping opportunities. Current estimates as to when the Arctic could be seasonally ice-free have varied greatly from as early as summer 2013 to as late as 2040; in any case, the Arctic is evidently thawing more rapidly than most climate models initially predicted.⁴⁶ In August 2012, for example, the National Snow and Ice Data Center observed that Arctic sea-ice extent had reached the lowest level on record, prompting concerns about the exponential speed at which the polar ice is disappearing.⁴⁷ Chinese leaders are keenly aware of this trend and are making calculated preparations to exploit an ice-free Arctic.

Since the mid-1990s, China's extensive polar research program has spearheaded its Arctic policy. Under the direction of the Chinese Arctic and Antarctic Administration (CAA), the mammoth Ukrainian-built icebreaker *Xuelong* has conducted five Arctic research expeditions since 1999, reaching the geographic North Pole for the first time during its fourth expedition, in 2010. In 2004 the Polar Research Institute of China established a permanent Arctic research station at Ny-Ålesund, in Norway's Svalbard Archipelago, to monitor Arctic climate change and its effects on China's continental and oceanic environment.⁴⁸ The Huanghe (Yellow River) station serves as a physical indicator of both the global scope of China's scientific interests and its entrance into the "polar club."⁴⁹

Impressive as is China's polar research apparatus in its current form, Beijing is eager to augment its operations in the Arctic. China's twelfth five-year plan (2011–15) reflects this ambition, announcing three new Arctic expeditions to be conducted before 2015.⁵⁰ Moreover, by 2014 China intends to launch the first of a series of new icebreakers to join *Xuelong*, thus enabling the CAA to conduct more frequent polar exploration and research missions.⁵¹ When the 1.25-billion-yuan (\$198 million), eight-thousand-ton vessel sets sail, China will possess icebreakers that are larger than and qualitatively superior to those of the United States and Canada.⁵²

In addition to constructing an icebreaker fleet, the PRC is acquiring various technologies essential to exploiting new economic opportunities in the Arctic. China is building ice-strengthened bulk carriers and tankers capable of commercial Arctic navigation, as well as planes that can fly in harsh polar weather conditions, in order to expand Beijing's aviation network into the Arctic and assist in emergency rescue missions.⁵³ Soon China may also be capable of polar oil extraction, as it recently acquired deepwater drilling technologies, although the Arctic's residual ice sheet will greatly complicate such operations.⁵⁴

While Chinese researchers express genuine concern over Arctic climate change (one publication stated that it is more significant than “the international debt crisis or the demise of the Libyan dictatorship”), the PRC is apparently more interested in the economic implications of Arctic warming than in its environmental consequences.⁵⁵ According to a widely circulated 2008 U.S. Geological Survey report, it is estimated that recoverable petroleum resources in the Arctic Circle account for “13 percent of the undiscovered oil, 30 percent of the undiscovered natural gas, and 20 percent of the undiscovered natural gas liquids in the world.”⁵⁶ Around 84 percent of these reserves are thought to reside in offshore areas. The Arctic also potentially holds 9 percent of the world’s coal and significant deposits of diamonds, gold, and uranium. China, eager to exploit these resources, has grown quite vocal in its view that these are “global resources, not regional.”⁵⁷

Similarly enticing is the prospect of commercial shipping through the Northern Sea Route, adjacent to Russia’s polar coast, and through the Northwest Passage, which transits Canadian waters. A Transpolar Sea Route, through the center of the Arctic Ocean, could also prove a boon for shipping, yet this prospect will not be viable for some time, until ice-free seasons lengthen. Redirecting trade through an Arctic sea-lane could greatly alleviate PRC energy insecurities by allowing commercial vessels to avoid the pirate-infested Gulf of Aden and South China Sea as well as such politically volatile regions as the Middle East. This would contribute to the resolution of China’s “Malacca dilemma,” as that narrow choke point would no longer dictate global trade patterns. Diverting oil supplies through the Arctic would also reduce Chinese dependence on the Strait of Hormuz (known in China as “the oil strait”), therefore reducing the vulnerability of those supplies to a hostile shutdown.⁵⁸

Arctic sea-lanes could also be tremendous cost savers, as they are much shorter than existing routes. A voyage from Rotterdam to Shanghai via the Northern Sea Route, for example, is 22 percent shorter than by the current route through the Suez Canal. Navigating the Northwest Passage would cut the Suez distance by 15 percent.⁵⁹ In addition to saving time and tons of bunker fuel, carriers would also avoid prohibitive vessel regulations, such as size restrictions, making Arctic sea-lanes attractive for megaships that are too large to pass through current routes.⁶⁰ With these advantages in mind, President Vladimir Putin of Russia has touted the Northern Sea Route as an emerging rival to the Suez and Panama Canals.⁶¹ Chinese analysts share Putin’s optimism, calculating that China could save a staggering \$60–\$120 billion per year solely by diverting trade through the Northern Sea Route.⁶² Ultimately, aside from the economic advantages of Arctic shipping, additional vessels will inevitably be diverted through the Arctic in any case, as both the Suez and Panama Canals are already operating at maximum capacity.⁶³

China is fully aware of this reality and is making preparations to capitalize on the opening of the High North to commercial shipping.

CHINA'S ARCTIC STRATEGY

While eager to access Arctic resources and shipping opportunities, China is also conscious of its disadvantaged status as a non-Arctic state. China's Arctic strategy therefore privileges cooperation over confrontation so as to position the nation as an Arctic power while preserving the Arctic status quo and avoiding countermeasures from the circumpolar states. This strategy emphasizes soft power through scientific diplomacy, participation in Arctic institutions, and resource diplomacy.

The first component of China's strategy, scientific diplomacy, promotes cooperation with the Arctic Eight on Arctic climate change and ecological studies. To address these issues, China will soon open its first international Arctic cooperation and research institute in Shanghai.⁶⁴ Further, since 1996 China has participated as a member of the International Arctic Science Committee, which promotes multidisciplinary research on the Arctic and its impact on the world. Chinese scientists also consistently participate in international forums on the Arctic environment, such as the Arctic Science Summit Week and the International Polar Year Programme.⁶⁵

In addition to scientific ventures, China is attempting to augment further its influence through participation in Arctic governance. In 2007, China was admitted as an ad hoc observer to the Arctic Council, the most influential intergovernmental organization in the region. Yet to the distress of CCP leaders, China's application for full observer status on the council has been denied three times and is unlikely to be granted in the near future. Each of the council's members has veto power over new accessions, and while some member countries favor China's bid, there is little consensus about it in the council as a whole. Norway, for example, has threatened to veto China's application since 2010, when Beijing halted political and human rights discourse with Oslo in response to the awarding to Chinese dissident Liu Xiaobo of the Nobel Peace Prize. Moreover, at the 2011 ministerial meeting a new requirement was established that observers recognize the sovereignty and jurisdiction of the littoral nations over the Arctic, a position that conflicts with China's interests as a non-Arctic state.

Despite this rather bleak outlook, China's level of participation in Arctic affairs is notably rising, primarily as a consequence of its resource-diplomacy strategy. Consistent with its global strategy in that realm, China is fostering closer ties with the circumpolar states and investing in resource projects in the Arctic to diversify its supply away from politically volatile regions. Arctic resources require enormous foreign investment to develop, and China, flush with capital, is well positioned to facilitate this investment and thus acquire a major stake. In turn,

CCP leaders hope the Arctic states will be inclined to back Chinese interests in the region.

Since Canada exercises dominion over the Northwest Passage and will chair the Arctic Council for two years beginning in April 2013, Beijing is paying special attention to Ottawa. China is now Canada's second-largest trading partner and seventh-largest source of foreign direct investment, with investments topping twenty billion dollars in 2011.⁶⁶ In the past two years alone, Chinese state-owned companies such as Sinopec and the China National Offshore Oil Corporation have invested more than sixteen billion dollars in Canadian energy.⁶⁷ China also accounts for 50 percent of the demand for Canadian minerals, demonstrating its capacity to become the largest trading partner and foreign investor in the Canadian Arctic.⁶⁸ Despite warming Sino-Canadian relations as a consequence of growing economic ties, however, Canada has thus far proved unwilling to support China's accession to the Arctic Council, causing the PRC to seek friends in other places.⁶⁹

Russia has similarly attracted growing Chinese investment and trade. With its vast Arctic coastline, Russia not only controls the lion's share of Arctic resources within its exclusive economic zone (EEZ) but controls much of the Northern Sea Route. Against this backdrop, the China National Petroleum Corporation and the Russian Sovcomflot Group have signed an agreement regarding the shipment of hydrocarbons along the Northern Sea Route.⁷⁰ Russia has also invited China to engage in joint exploration and exploitation ventures for hydrocarbon deposits in its Arctic offshore.⁷¹ In 2012 China and Russia further deepened economic ties by signing twenty-seven trade contracts totaling fifteen billion dollars and creating a four-billion-dollar investment fund.⁷² Yet even with these developments, Russia, arguably the most important Arctic player, has remained ambiguous regarding China's accession to the Arctic Council, having stated in July 2011 that it did not "in principle" oppose China's application.⁷³

If the PRC has found little support for its Arctic Council bid in Norway, Canada, and Russia, it has gained support from other Arctic players, particularly Iceland. Since 2008, when Reykjavik's economy collapsed, China has injected substantial investment into the country, anticipating that it will soon become a logistics hub as the Arctic warms. In April 2012 Premier Wen Jiabao traveled to Iceland and signed a number of bilateral deals, including a framework accord on North Pole cooperation. In response to these agreements, Iceland's prime minister, Johanna Sigurdardottir, has expressed her country's support for China's accession to the council as a permanent observer.⁷⁴

Denmark too has voiced support for China's interests in the Arctic. On 28 October 2011 Denmark's ambassador to China, Friis Arne Petersen, stated that China has "natural and legitimate economic and scientific interests in the

Arctic.”⁷⁵ Denmark has also declared that it “would like to see China as a permanent observer” at the Arctic Council.⁷⁶ This support coincides with Chinese interests in developing resources in Denmark’s constituent country Greenland, which lacks the ability to develop its resources independently. Among Greenland’s substantial resource deposits are rare-earth minerals, uranium, iron ore, lead, zinc, gemstones, and petroleum, all magnets for Chinese investment.

In sum, China’s strategy of scientific diplomacy, participation in Arctic institutions, and resource diplomacy has proved fairly successful, enabling the PRC to acquire peacefully a (limited) say in Arctic affairs. Through these measures China has shored up soft power in the region by successfully aligning the interests of some of the Arctic states with its own. In addition to Denmark and Iceland, China has garnered support for its accession to the Arctic Council from Sweden, also a member.⁷⁷ Even the Inuit and other indigenous peoples represented at the Arctic Council have said that they do not object to the expansion of the council, as long as their own voices remain heard.⁷⁸

Yet China faces a further obstacle to participation in Arctic affairs, in the form of competition with other non-Arctic states. Prominent among those countries vying for admission to the Arctic Council as permanent observers are India, Brazil, Japan, South Korea, the European Union, and a number of individual European states. The growing Arctic interests of these states demonstrate that the race to the High North has truly become global, adding to the complexity of Arctic geopolitics. Notably, India, already a competitor with China in South Asia, has established a formidable Arctic research program of its own, including a permanent research station in the Svalbard Archipelago and numerous research expeditions.⁷⁹ But while the council may expand to admit a few of these states as observers, it is unlikely that many will gain seats, since present members are wary of seeing their own influence diminished.⁸⁰ Moreover, China, it seems, is not highly favored for accession, as indicated by a January 2011 survey of public opinion in the eight Arctic states that found that “China is the least attractive partner to all current Arctic Council countries [save for Russia].”⁸¹ These factors will tend to intensify Chinese relations with other non-Arctic states as Beijing fights to have a say in Arctic affairs.

CHINA: POTENTIAL REVISIONIST ARCTIC POWER

Despite its many achievements in terms of investment and cooperation, China fears it is being shut out of the Arctic. In 2008, for example, the “Arctic Five”—Canada, Russia, the United States, Denmark, and Norway—signed the Ilulissat Declaration, committing themselves to peaceful resolution of territorial sovereignty disputes in the Arctic.⁸² However, with its narrow definition of Arctic matters as regional ones, the declaration perceptually attempts to exclude non-Arctic

states from them.⁸³ China fears that in this fashion the circumpolar states will “gang up and ‘carve up the Arctic melon’ and its natural resources among themselves, to the exclusion of everyone else.”⁸⁴ To secure its position in Arctic affairs, therefore, Beijing propagates the notion that it has rights in the Arctic, engages in “lawfare” to obfuscate the legal framework, advocates institutional reform, and cultivates hard-power measures to secure its interests.

First and foremost, China harbors a deep sense of entitlement to Arctic resources, sea-lanes, and governance. This entitlement relies on various justifications. As a Northern Hemisphere country that is affected by Arctic warming, a permanent member of the UN Security Council, and the world's most populous state, China sees its role in Arctic affairs as indispensable. Chinese rear admiral Yin Zhuo made this point in March 2010, proclaiming that “the Arctic belongs to all the people around the world as no nation has sovereignty over it.”⁸⁵ Similarly, in 2009 Hu Zhengyue, China's assistant minister of foreign affairs, warned that Arctic countries should “ensure a balance of coastal countries' interests and the common interests of the international community.”⁸⁶ Hu, it seems, was advising the circumpolar states not to lock up for themselves the resources and sea-lanes of the Arctic.

China further asserts its rights by employing the language of UNCLOS to argue that the Arctic and its resources are the “common heritage of all humankind” and do not belong exclusively to the Arctic Five.⁸⁷ In reality, “common heritage” in UNCLOS refers to the high seas, designated by UNCLOS as the area that lies beyond EEZ boundaries. If the current territorial and continental-shelf claims of the circumpolar states are ultimately accepted as presented, 88 percent of the Arctic seabed would likely fall under their combined sovereign EEZ jurisdictions, with the small “doughnut hole” in the center qualifying as the common heritage.⁸⁸ Since, however, most of the resource wealth in the Arctic lies within these claims, China perpetuates the notion that the entire Arctic Ocean is the common heritage of humankind so as to expand its legal rights there.⁸⁹ This sort of “lawfare,” or misuse of the “law as a substitute for traditional military means to achieve an operational objective,” is an essential component of China's strategy, enabling the PRC to circumvent its weaker status as a non-Arctic state through asymmetrical means.⁹⁰

China also appears bent on reforming the institutions governing the Arctic so as to create for itself a more favorable legal environment. China's national news magazine *Beijing Review* has boldly asserted that every treaty and organization constituting the Arctic legal regime—including UNCLOS, the International Maritime Organization, and the Arctic Council—is riddled with flaws and must be reformed. For example, in China's view the laws enacted by the Arctic Council are not legally binding and “a politically valid . . . Arctic governance system

has yet to be established.” Moreover, China resents the fact that Arctic affairs are dominated by the littoral states, claiming that “it is unimaginable that non-Arctic states will remain users of Arctic shipping routes and consumers of Arctic energy without playing a role in the decision-making process. . . . [A]n end to the Arctic states’ monopoly of Arctic affairs is now imperative.”⁹¹

One area that China wishes to reform is free navigation through Arctic seelanes. According to UNCLOS, while foreign vessels are granted the right of “innocent passage” through territorial waters and free navigation through exclusive economic zones, states retain full sovereignty over internal waters—waters on the landward side of the baseline from which the territorial zone is demarcated—and can restrict shipping therein. Under this provision, Russia has declared that currently accessible portions of the Northern Sea Route fall within its internal waters;⁹² for its part, Canada has asserted that the Northwest Passage constitutes “historic internal waters.”⁹³ In response, some Chinese scholars and government officials have suggested that the Svalbard Treaty—the instrument that governs the international use of Norway’s Svalbard Archipelago, where China maintains its sole Arctic research station—could be used as a model for resolving Canada’s claims of sovereignty over the Northwest Passage.⁹⁴ Under such an agreement, Canada would retain full sovereignty over the passage but with the provision that international shipping would be allowed free navigation rights. However, Canada, like Russia, places an extremely high premium on its Arctic sovereignty and is unlikely to favor such a proposal.⁹⁵

In light of these disadvantages, some speculation has arisen as to whether China, which has an extensive history of advocating its own sovereignty rights while disregarding the claims of other states, will respect the sovereign claims of the circumpolar states or instead utilize military force to secure its interests. In fact, a Chinese military presence in the Arctic is not beyond the realm of possibility, and the idea is entertained with some seriousness in the PRC. For example, Li Zhenfu of Dalian Maritime University has written that the Arctic “has significant military value, a fact recognized by other countries.” Similarly, the PLA, which has apparently assumed the role of guardian of China’s core national interests, has adopted a strident tone on Arctic affairs. In 2008, for example, Senior Colonel Han Xudong warned that the “possibility of use of force cannot be ruled out in the Arctic due to complex sovereignty disputes.”⁹⁶ In contrast, Chinese political officials have expressed a preference for cooperative resolution of Arctic disputes. This disjunction between Chinese military and political commentary hints at internal divisions over Arctic strategy and raises questions whether the PLA is driving China’s economic and strategic fixation with the Arctic. To the extent that in fact it is, PLA posturing could translate into action.

With its naval modernization program now aimed at “far-sea defense,” a Chinese military presence in the Arctic could materialize as Beijing becomes more reliant on Arctic resources and sea-lanes to fuel its economy. China could deploy submarines or surface warships into the Arctic to conduct surveillance, defend economic interests, or accomplish strategic goals. In recent years the PLAN has grown increasingly assertive, as in 2009, when five Chinese vessels stalked USNS *Impeccable*, ostensibly defending China’s territorial claims in the South China Sea.⁹⁷ David Curtis Wright has argued that given this trend, along with “the brazen nuclear-powered submarine violation of Japanese territorial waters on 10 November 2004, the lurking of one or more Chinese submarines in the Arctic should not come as much of a surprise, if it has not happened already.”⁹⁸ In fact, *Xuelong*’s oceanographic studies and sea-bottom research during its 1999 expedition had “operational implications for the PLAN’s antisubmarine warfare (ASW) capability,” suggesting that China could already be making preparations for a military contingency in the High North.⁹⁹ In addition to these considerations, China might also find an Arctic naval presence attractive as it would constitute a strategic vantage point from which to exert pressure on the United States in the event of a confrontation over, for example, Taiwan.

At a minimum, when climate change makes the sea routes and resources of the Arctic truly profitable, China may seek to establish a naval presence along the Bering Strait to provide trade security. No more than fifty-two nautical miles wide, the Bering Strait, which separates Alaska and Russia, was referred to as the “Ice Curtain” during the Cold War and is now sometimes called the “Bering Gate.”¹⁰⁰ As China’s only entry point into the Arctic, the Bering Strait is a narrow choke point through which all of the nation’s energy and trade transiting the Arctic will have to pass. The PLAN, therefore, will be deeply concerned with its safety.

CHANGING THE RULES

China’s entrance into the Arctic signals the reality that Arctic affairs may no longer be considered strictly regional, as climate change makes the Arctic’s vast resource wealth and shipping lanes accessible to the world. When formulating Arctic policy, therefore, circumpolar actors must take into account the intentions of non-Arctic states. The foregoing analysis is relevant to that decision calculus, as it illuminates the status quo and revisionist strains in China’s Arctic strategy.

It appears that China’s Arctic strategy qualifies under the third level of Alastair Iain Johnston’s framework referred to above, which holds that a non-status quo actor may participate in the institutions of an international community and temporarily adhere to its rules and norms yet, if given the opportunity, attempt to “change these rules and norms in ways that defeat the original purposes of the

institution and the community.” While China’s strategy stresses cooperation and participation in existing Arctic institutions, such as the Arctic Council, it also challenges the rules and norms protecting the exclusive rights of the circumpolar states. For example, China’s claim that Arctic resources are global contradicts the norm and legal principle that Arctic affairs are regional affairs. Still, beyond military and strategic circles, China has displayed no intention of realizing a “radical redistribution” of material power in the Arctic through military means. Since China’s strategy favors institutional and normative reform over military conflict, China must be considered a mildly revisionist Arctic power.

Nevertheless, the potential for conflict exists, and its likelihood will depend to a significant degree on how the circumpolar states react to China’s Arctic ambitions. China’s strategy emphasizes the status quo only so long as that proves conducive to its “core interests”; Beijing could pursue more revisionist policies if it perceived these interests as severely threatened. If at some point the CCP were to determine that supply disruptions or a blockade of commercial vessels threatened its economic interests in the Arctic to the point of impacting Chinese social, and subsequently regime, stability, it could respond with military force. To reduce the likelihood of such a conflict, the Arctic Eight should incorporate PRC interests into their Arctic policy calculus, in two basic ways.

First, the circumpolar states must be cautious not to overreact to a Chinese presence in the Arctic. This is not to say that they should avoid precautionary measures; prudence dictates that the Arctic Eight prepare for military contingencies and protect their northern sovereignty should, for instance, the strategic value of the Arctic region eventually attract Chinese warships for protecting trade or exerting pressure on the United States. Still, the logic of the security dilemma suggests that heavy Arctic militarization or inflammatory rhetoric could provoke conflict if regional states, worried about China’s growing influence, were to engage in excessive military posturing and thereby intensify China’s concerns.

Second, the Arctic Eight should seek to include, rather than exclude, China in Arctic institutions and agreements, which they can do without ceding their own rights. Admission of the PRC as a permanent observer country to the Arctic Council, for example, would go far toward meeting Chinese interests. A number of non-Arctic countries (all of them European) already operate as permanent observers to the council, and the expansion of such a right to an East Asian country would enhance the organization’s soft power in that region. More importantly, admission of China to the Arctic Council as a permanent observer would not significantly diminish the influence of the Arctic Eight, as, among other limitations, observers do not have voting privileges. Given this point, along with the fact that Chinese and American interests are aligned on such issues as free navigation

through the Northwest Passage, Washington would be well served to advocate China's accession to the council.

China's Arctic strategy remains in its formative stages. Yet even if a Chinese threat to Arctic security never materializes, the unfolding race to the north will tend to intensify Sino-Arctic strategic suspicion, as well as tension between China and other non-Arctic states seeking a say in Arctic affairs. To avoid a destabilizing escalation, it will be important not only for the littoral states to be inclusive of China but also for the PRC to improve the transparency of its Arctic policy making by clarifying its intentions in the High North.

NOTES

The author would like to thank Dr. Robert E. Williams, Jr., Dr. Joel Fetzer, Mr. Raymond Arnaudo of the Policy Planning staff of the U.S. State Department, and Dr. Dan Caldwell for their advice and suggestions on this article.

1. For example, Canada has bolstered its Arctic security with growing numbers of border rangers and plans to construct new offshore patrol ships; Denmark, an Arctic-territorial state by virtue of its autonomous constituent country Greenland, has indicated that it will establish an Arctic military command and task force in the coming years; in 2009 the U.S. Navy announced an "Arctic Roadmap" calling for increased readiness, cooperation, and identification of potential conflict in the Arctic region; in 2007 Russia resumed strategic bomber flights over the Arctic and in 2011 announced that it would establish military units specially trained for operations in the Arctic; in 2012 Norway indicated that it will rename the army's 2nd Battalion the "Arctic Battalion" and will equip it to protect its Arctic territory; Canada, Denmark, and the United States have also conducted joint military exercises, and in early 2012 the Arctic Eight held an unprecedented regional Arctic security summit. See "Military Powers Beef Up Arctic Presence," *Wall Street Journal*, 16 April 2012.
2. See James Kraska, "Northern Exposures," *American Interest* (May/June 2010).
3. Alexander Stubb, "A New Arctic Era and Finland's Arctic Policy" (keynote speech, 20th Anniversary Seminar of the Arctic Center, 29 September 2009), available at formin.finland.fi/.
4. "China Defines Itself as a 'Near-Arctic State,' Says SIPRI," *Stockholm International Peace Research Institute*, 10 May 2012, www.sipri.org/.
5. The Arctic Council is an intergovernmental body addressing issues concerning the indigenous people of the Arctic and the governments of the circumpolar states. Its voting members constitute the "Arctic Eight." In addition, the council has six permanent observer states, all of them European.
6. A. F. K. Organski and Jacek Kugler, *The War Ledger* (Chicago: Chicago Univ. Press, 1980), pp. 19–20, 23, quoted in Alastair Iain Johnston, "Is China a Status Quo Power?," *International Security* 27, no. 4 (Spring 2003), p. 9.
7. Hans J. Morgenthau, *Politics among Nations: The Struggle for Power and Peace*, 5th ed. (New York: Knopf, 1978), p. 46.
8. Randall L. Schweller, "Bandwagoning for Profit: Bringing the Revisionist State Back In," *International Security* 19, no. 1 (Summer 1994), p. 105.
9. Johnston, "Is China a Status Quo Power?," p. 11.
10. Mark Weisbrot, "2016: When China Overtakes the US," *Guardian*, 27 April 2011.
11. Arvind Subramanian, "The Inevitable Superpower: Why China's Dominance Is a Sure

- Thing,” *Foreign Affairs* 90, no. 5 (September 2011), pp. 66–78.
12. Martin Wolf, “India’s Elephant Charges On through the Crisis,” *Financial Times*, 2 March 2010.
 13. Hongyi Harry Lai, “China’s Oil Diplomacy: Is It a Global Security Threat?,” *Third World Quarterly* 28, no. 3 (2007), p. 522.
 14. For oil consumption, Judy Hua and Chen Aizhu, “Update 2: China Oil Demand Growth Seen Easing in 2012—CNPC Research,” Reuters, 9 February 2012, www.reuters.com/.
 15. International Energy Agency, “World Energy Outlook 2011,” 9 November 2011, available at www.iea.org/.
 16. Matt Stone, “Natural Gas,” *Diplomat*, n.d. [2011], the-diplomat.com/.
 17. Maritime shipping, far cheaper and more viable than pipeline transit, accounts for more than 80 percent of China’s oil imports and 40 percent of its total oil needs. See Andrew S. Erickson, “Pipe Dream: China Seeks Land and Sea Energy Security,” *Jane’s Intelligence Review (China Watch)* 21, no. 8 (August 2009), pp. 54–55.
 18. Zhang Tingbin, “Time to Curb Appetite for Foreign Oil,” *Global Times*, 2 August 2012.
 19. For a more extensive analysis of this issue, see Ian Storey, “China’s Malacca Dilemma,” Jamestown Foundation *China Brief* 6, no. 8 (12 April 2006).
 20. See Robert J. Antony, “Piracy on the South China Coast through Modern Times,” and David Rosenberg, “The Political Economy of Piracy in the South China Sea,” in *Piracy and Maritime Crime: Historical and Modern Case Studies*, ed. Bruce A. Elleman, Andrew Forbes, and David Rosenberg, Newport Paper 35 (Newport, R.I.: Naval War College Press, 2010).
 21. “Final Piracy Report 2011,” *ASI Global: Maritime Response*, 2011, www.asiglobalresponse.com/.
 22. Global piracy costs shipping companies between seven and twelve billion dollars a year in “insurance premiums, ransoms, and disruption.” See “Short and Sharp,” *Economist*, 16 June 2012.
 23. For a lengthier treatment of this debate, see Erica S. Downs, “The Chinese Energy Security Debate,” *China Quarterly* 177 (2004), pp. 21–41.
 24. See David Zweig and Bi Jianhai, “China’s Global Hunt for Energy,” *Foreign Affairs* 84, no. 5 (September/October 2005).
 25. David L. O. Hayward, “China’s Oil Supply Dependence,” *Journal of Energy Security* (June 2009), www.ensec.org/.
 26. Vincent Wei-cheng Wang, “‘Chindia’ or Rivalry? Rising China, Rising India, and Contending Perspectives on India-China Relations,” *Asian Perspective* 35 (2011), p. 451.
 27. For a more exhaustive analysis of this strategy, see Daniel J. Kostecka, “Places and Bases: The Chinese Navy’s Emerging Support Network in the Indian Ocean,” *Naval War College Review* 64, no. 1 (Winter 2011), p. 61.
 28. For “energy nationalism,” Gabe Collins and Andrew S. Erickson, “Energy Nationalism Goes to Sea in Asia,” in *Asia’s Rising Energy and Resource Nationalism: Implications for the United States, China, and the Asia-Pacific Region*, NBR Special Report 31 (Seattle, Wash.: National Bureau of Asian Research, September 2011), p. 17.
 29. Alfred Thayer Mahan, *The Influence of Sea Power upon History, 1660–1783* (Boston: Little, Brown, 1918), p. 26. Numerous observers have noted the growing prevalence of Mahanian thought in Chinese strategic culture. See, for example, Robert D. Kaplan, “The Geography of Chinese Power,” *Foreign Affairs* 89, no. 3 (2010), p. 34.
 30. Quoted in Edward Wong, “Chinese Military Seeks to Extend Its Naval Power,” *New York Times*, 23 April 2010, p. A1.
 31. *Ibid.*
 32. Information Office of the State Council of the People’s Republic of China, *China’s National Defense in 2008* (Beijing: January 2009), part V, “The Navy,” available at english.gov.cn/.
 33. Kaplan, “Geography of Chinese Power,” p. 34; Andrew S. Erickson, Abraham M. Denmark, and Gabriel Collins, “Beijing’s ‘Starter Carrier’ and Future Steps,” *Naval War College Review* 65, no. 1 (Winter 2012).
 34. See Erickson, Denmark, and Collins, “Beijing’s ‘Starter Carrier,’” pp. 15–54.
 35. Efforts to respond to China’s rise have remained characteristic of American grand

- strategy through the present. A 2001 U.S. strategic review conducted by then-Secretary of Defense Donald Rumsfeld identified China as America's most plausible great-power concern and adversary. The United States has maintained this posture; in late 2011 and early 2012, the Obama administration announced a strategic pivot toward the Asia-Pacific region to ensure that "the United States will play a larger and long-term role in shaping this region and its future." See White House Office of the Press Secretary, "Remarks by President Obama to the Australian Parliament," 17 November 2011, available at www.whitehouse.gov/.
36. Hu Jintao began using the term "Peaceful Development" in 2004 to assure the world that China was not a revisionist power, as the previously used "Peaceful Rise" had seemed to imply. See "Full Text of Hu Jintao's Speech at BFA Annual Conference 2004," *Speech Delivered by President Hu Jintao of China at the Opening Ceremony of the Boao Forum for Asia 2004 Annual Conference*, 23 April 2004, available at www.china.org.cn/.
 37. Avery Goldstein, *Rising to the Challenge: China's Grand Strategy and International Security* (Stanford, Calif.: Stanford Univ. Press, 2005), p. 12.
 38. *Ibid.*, p. 23.
 39. Michael D. Swaine, "China's Assertive Behavior: Part One—on 'Core Interests,'" *China Leadership Monitor*, no. 34 (Winter 2011), p. 4.
 40. *Ibid.*, p. 5.
 41. "Political System Now China's Core Interest," *Global Times*, 7 September 2011.
 42. Goldstein, *Rising to the Challenge*, p. 24.
 43. Roger Howard, *The Arctic Gold Rush: The New Race for Tomorrow's Natural Resources* (London: Continuum, 2009), p. 216.
 44. Quoted from the PLA's 2005 *Science of Military Strategy* in "The Dragon's New Teeth," *Economist*, 7 April 2012.
 45. Susan L. Shirk, *China: Fragile Superpower* (Oxford, U.K.: Oxford Univ. Press, 2007), p. 54.
 46. Since 1951 the Arctic has warmed twice as fast as the global average; see James Astill's special report, "The Melting North," *Economist*, 16 June 2012. The accelerated Arctic thaw has spurred the National Snow and Ice Data Center to forecast a largely ice-free Arctic as early as summer 2030; see John Vidal, "Arctic May Be Ice-Free within 30 Years," *Guardian*, 11 July 2011. For the 2013 estimate, see Jonathan Amos, "Arctic Summers Ice-Free 'by 2013,'" *BBC News*, 12 December 2007, news.bbc.co.uk/. For the report that found that the Arctic could be seasonally ice-free as early as 2040, see *Arctic Marine Shipping Assessment 2009 Report* (Tromsø, Nor.: Arctic Council, April 2009), p. 25.
 47. "Media Advisory: Arctic Sea Ice Breaks Lowest Extent on Record," *National Snow and Ice Data Center*, 27 August 2012, nsidc.org/.
 48. In 1925, China, along with eighteen other countries, signed the Spitsbergen Treaty, which is now referred to as the Svalbard Treaty. By its terms, members may conduct scientific research in the Svalbard Islands. China's Yellow River station is permitted under this condition.
 49. Charles Emmerson, *The Future History of the Arctic* (New York: PublicAffairs, 2010), p. 143.
 50. The first of these three expeditions departed on 2 July 2012, carrying scientists from China, the United States, Denmark, France, Iceland, and Taiwan. See Wang Qian, "New Icebreaker to Improve China's Polar Research," *China Daily*, 4 November 2011, www.chinadaily.com.cn/.
 51. Qu Tanzhou, director of the CAA, has stated that "more icebreakers will be built in the long term"; *ibid.*
 52. This point was first made by Paul McLeary, "The Arctic: China Opens a New Strategic Front," *World Politics Review*, 19 May 2010. In sharp contrast, both U.S. heavy-duty icebreakers—*Polar Star* and *Polar Sea*—remain in states of disrepair and neglect; see Patrick J. Russell, "U.S. Icebreaker Ships in Disrepair," *Seattle Times*, 11 October 2011. Moreover, Canada's aging icebreakers are crippled by their inability to operate during the winter; see Michael Byers, *Who Owns the Arctic? Understanding Sovereignty Disputes in the North* (Vancouver, B.C.: Douglas & McIntyre, 2010), p. 62. It is noteworthy that Russia has over twenty-five icebreakers, six of them nuclear powered.

53. Wang Qian, "New Icebreaker to Improve China's Polar Research."
54. "\$1b Jumbo Deepwater Rig Delivered to CNOOC," *China Daily*, 23 May 2011, www.chinadaily.com.cn/.
55. Stefan Rahmstorf, "Silent Warning That Must Be Heeded," *China Daily*, 21 October 2011, www.chinadaily.com.cn/.
56. "90 Billion Barrels of Oil and 1,670 Trillion Cubic Feet of Natural Gas Assessed in the Arctic," *USGS Newsroom*, 23 July 2008, www.usgs.gov/.
57. Wang Qian, "Arctic Research Set to Be Beefed Up," *China Daily*, 6 May 2010, www.chinadaily.com.cn/.
58. Iran has made a number of threats in recent years to shut down the strait. See, for example, Emre Peker, "Iran May Shut Hormuz, Will React to Sanctions, Press TV Reports," *Bloomberg*, 23 January 2012, www.bloomberg.com/.
59. "Short and Sharp."
60. Joseph Spears, "China and the Arctic: The Awakening Snow Dragon," *Jamestown Foundation China Brief* 9, no. 6 (March 2009), p. 11.
61. Gleb Bryanski, "Russia's Putin Says Arctic Trade Route to Rival Suez," *Reuters*, 22 September 2011, ca.reuters.com/.
62. Malte Humpert, "Part 5: The Future of the Northern Sea Route—a 'Golden Waterway' or a Niche Trade Route," *Arctic Institute Center for Circumpolar Security Studies*, 3 October 2011, www.thearcticinstitute.org/.
63. Robert Wade, "A Warmer Arctic Needs Shipping Rules," *Financial Times*, 16 January 2008. In a June 2012 special report ("Short and Sharp"), *The Economist* noted that Arctic shipping has already experienced a sharp increase in recent years. By 2030 as much as 2 percent of global shipping could be diverted through Arctic SLOCs, rising to 5 percent by 2050; see John Vidal, "Melting Arctic Ice Clears the Way for Supertanker Voyages," *Guardian*, 5 October 2011.
64. "China to Open International Institute for Arctic Studies," *Xinhua*, 8 August 2012, news.xinhuanet.com/.
65. For a more exhaustive analysis of Chinese scientific actions in the Arctic, see Linda Jakobson's pioneering piece "China Prepares for an Ice-Free Arctic," *SIPRI Insights on Peace and Security* 2 (March 2010), p. 4.
66. Li Jiabao, "Chinese Investments Continue to Grow in Canada," *China Daily*, 4 April 2012, www.chinadaily.com.cn/.
67. "Canada's Harper in China Visit Focused on Energy," *Associated Press*, 7 February 2012, abcnews.go.com/.
68. "Interests and Roles of Non-Arctic States in the Arctic" (seminar presented by the National Capital Branch of the Canadian International Council and the Munk-Gordon Arctic Security Program, Ottawa, 5 October 2011), p. 4, available at www.opencanada.org/.
69. Relations reached a low point in 2009 but have since reached "a new level," following numerous multibillion-dollar trade and business agreements on petroleum and other products. See Jason Fekete, "China, Canada Reach Deals on Oil, Uranium and Air Travel," *Ottawa Citizen*, 9 February 2012.
70. "Sovcomflot Group and China National Petroleum Corporation Become Strategic Partners," *Sovcomflot Press-Centre*, 22 November 2010, www.sovcomflot.ru/.
71. Stephen Blank, "The Arctic: A Future Source of Russo-Chinese Discord?," *Jamestown Foundation China Brief* 10, no. 24 (3 December 2010), p. 8.
72. "China and Russia Sign Deal Setting Up \$4 Billion Investment Fund," *Bloomberg News*, 5 June 2012, www.bloomberg.com/. For trade contracts, "China Vice Premier: China, Russia Sign Trade Deals Worth \$15B," *Wall Street Journal*, 29 April 2012.
73. Jian Junbo, "China Won't Be Frozen Out of the Arctic," *Asia Times*, 3 May 2012, www.atimes.com/. For Russia as an Arctic player, see, for example, Michael L. Roi, "Russia: The Greatest Arctic Power?," *Journal of Slavic Military Studies* 23, no. 4 (2010), pp. 551–73.
74. Hu Yinan, "Premier Puts Spotlight on Iceland Trade, Arctic Policy," *China Daily*, 22 April 2012, www.chinadaily.com.cn/.
75. "Greenland Open to China's Growing Arctic Interest," *Nunatsiaq News*, 7 November 2011, www.nunatsiaqonline.ca/.

76. Michael Martina, "Denmark Welcomes China In from the Arctic Cold," Reuters, 28 October 2011, www.reuters.com/.
77. The Chinese vice foreign minister, Song Tao, first announced Sweden's support for China's bid on 16 April 2012; see "China Says Has Swedish Backing on Arctic Council," *Bloomberg BusinessWeek*, 16 April 2012. Subsequently, on 25 April, the Swedish minister for international development cooperation, Gunilla Carlsson, confirmed Sweden's support. See Jian Junbo, "China Won't Be Frozen Out of the Arctic."
78. Raja Murthy, "China, India Enter Heating-Up Arctic Race," *Asia Times*, 25 January 2012, www.atimes.com/.
79. Dinesh C. Sharma, "Arctic Plays Host to Sino-India Rivalry as Countries Battle to Join Council," *Daily Mail*, 17 January 2012.
80. "Eyeing Resources: India, China, Brazil, Japan, Other Countries Want a Voice on Arctic Council," *Walter & Duncan Gordon Foundation*, 16 January 2012, gordonfoundation.ca/.
81. Ekos Research Associates, *Rethinking the Top of the World: Arctic Security Public Opinion Survey* (Toronto: Walter & Duncan Gordon Foundation and the Canada Centre for Global Security Studies at the Munk School of Global Affairs, January 2011), p. ix.
82. *The Ilulissat Declaration*, Arctic Ocean Conference, Ilulissat, Greenland, 28 May 2008, available at www.oceanlaw.org/.
83. Jason Dittmer, Sami Moio, Alan Ingram, and Klaus Dodds, "Have You Heard the One about the Disappearing Ice? Recasting Arctic Geopolitics," *Political Geography* 30 (2011), p. 206.
84. David Curtis Wright, *The Dragon Eyes the Top of the World: Arctic Policy Debate and Discussion in China*, China Maritime Study 8 (Newport, R.I.: Naval War College Press for the China Maritime Studies Institute, August 2011), p. 2.
85. Gordon G. Chang, "China's Arctic Play," *Diplomat*, 9 March 2010, the-diplomat.com/.
86. Jakobson, "China Prepares for an Ice-Free Arctic," p. 10.
87. Wang Qian, "Arctic Research Set to Be Beefed Up."
88. Joseph Spears, "The Snow Dragon Moves into the Arctic Ocean Basin," Jamestown Foundation *China Brief* 11, no. 2 (January 2011), p. 14.
89. This point is made throughout Wright's *Dragon Eyes the Top of the World*.
90. For "lawfare," Maj. Gen. Charles J. Dunlap, Jr., "Lawfare Today: A Perspective," *Yale Journal of International Affairs*, no. 146 (Winter 2008), p. 146.
91. Cheng Baozhi, "Arctic Aspirations," *Beijing Review*, 30 August 2011, www.china.org.cn/.
92. George A. Backus and James H. Strickland, *Climate-Derived Tensions in Arctic Security*, Sandia Report SAND2008-6342 (Albuquerque, N.Mex.: Sandia National Laboratories, 2008), p. 25, available at est.sandia.gov/. See also Michael Byers, "Russia Pulling Ahead in the Arctic," *Toronto Star*, 28 December 2011, www.thestar.com/.
93. See, for example, Michael Byers and Suzanne Lalonde, "Who Controls the Northwest Passage?," *Vanderbilt Journal of Transnational Law* 42, no. 4 (October 2009), p. 1153.
94. David Curtis Wright, "The Panda Bear Readies to Meet the Polar Bear: China and Canada's Arctic Sovereignty Challenge," *Canadian Defense and Foreign Affairs Institute* (March 2011), p. 6.
95. *Ibid.*, p. 7.
96. Quoted in Jakobson, "China Prepares for an Ice-Free Arctic," p. 7.
97. Tony Capaccio, "Chinese Vessels Harass U.S. Navy Ship, Pentagon Says," *Bloomberg*, 9 March 2009, www.bloomberg.com/.
98. David Curtis Wright, "Claiming the Arctic: China's Posturing Becomes Ever Clearer," *Defense News*, 1 July 2012.
99. Bernard D. Cole, *The Great Wall at Sea: China's Navy in the Twenty-First Century* (Annapolis, Md.: Naval Institute Press, 2010), p. 24.
100. Spears, "China and the Arctic," p. 11.