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Risk Report

CHINESE ARCTIC AMBITIONS: ENERGY SECURITY IN THE NEXT INTERNATIONAL ARENA

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RISK REPORT

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Summary

This Risk Report highlights the future prospects of the Arctic region as an arena for potential collaboration or conflict as it relates to the addition of a new actor: China. This report is framed by discussing China's diversification of their energy sector and desire to secure alternate energy sources in the Arctic. To understand the complexities surrounding the Arctic landscape, an understanding of international and country-specific laws is required – namely, norms and regulations established by the Arctic Council and the United Nations Law of the Sea to govern the region. Next, the climate change factor is reviewed, which potentially provides an opening in the Arctic for future trade and is already attracting the interest of various actors. Climate change will also maintain a role in how resources will be extracted and transported through the region, should current projects continue development and future ones come to fruition. Subsequently, a review of China's polar strategy is touched upon, which also covers the role of Chinese national oil companies (NOCs) and their role in Arctic resource extraction. The Risk Report culminates with the government's release of an Arctic White Paper in which they call themselves a "Near-Arctic State." The terminology give insight into China's desire to assert their legitimacy and remain closely involved in Arctic affairs.

List of Abbreviations:

AC	Arctic Council
BRI	Belt and Road Initiative
CCP	Chinese Communist Party
CGN	China General Nuclear Power Group
CNNC	China National Nuclear Program
COD	Central Organization Department
COSCO	China Ocean Shipping Company
EEZ	Exclusive Economic Zone
FDI	Foreign Direct Investment
LNG	Liquefied Natural Gas
NEP	Northeast Passage
NOC	National Oil Company
NSR	Northern Sea Route
NWP	Northwest Passage
PRIC	Polar Research Institute of China
SASAC	State-Owned Assets Supervision and Administration Commission
SOE	State-Owned Enterprise
TSR	Transpolar Sea Route
UNCLOS	United Nations Convention on the Law of the Sea
US	United States
USGS	United States Geological Survey

BOLTS: STRATEGIC, OPERATIONAL, FINANCIAL, COMPLIANCE.

TAGS: ARCTIC, AMERICAS, ASIA, EUROPE, CANADA, CHINA, DENMARK, FINLAND, ICELAND, NORWAY, RUSSIA, SWEDEN, UNITED STATES, USA, ARCTIC COUNCIL, POLAR SILK ROAD, UNCLOS, ENERGY, ENERGY SECURITY, LIQUEFIED NATURAL GAS, OIL, GAS, NATURAL GAS, PETROLEUM, TRADE, INTERNATIONAL TRADE, SECURITY.

Introduction

The Arctic region has historically been an important area for international collaboration in scientific research and ecosystem management. Furthermore, the Arctic Circle is home to a vast amount of resources including marine life, minerals, natural gas, and oil. Since the mid-2010s, untapped oil and gas reserves trapped beneath Arctic ice have garnered the increased interest of regional stakeholders as climate change makes these previously inaccessible resources exploitable for the first time. Global warming also means more accessible northern trade routes for energy and shipping companies as polar ice caps continue to melt.

While a variety of multilateral organizations have historically governed energy extraction in the region, China's interest in Arctic natural resources coupled with a recent declaration that the country is a "near-Arctic state" means that a regional balance must be reevaluated to a certain extent. China's need to fuel its economic development has placed the Arctic within China's energy security strategy and vision for a new Polar Silk Road. As Chinese national oil companies (NOCs) have started positioning themselves for Arctic exploration and resource acquisition, new economic and strategic opportunities as well as notable challenges have arisen.

China's Energy Security Strategy

China's growing energy demand to support its developing economy has put energy security as a top national interest. While an estimated 62% of China's energy needs still come from coal as of 2016¹, since the mid-1990s, China has become a net oil importer. As of 2019, China buys

¹ "How Is China's Energy Footprint Changing?" *ChinaPower Project*, CSIS, 13 Aug. 2018, <http://chinapower.csis.org/energy-footprint/> (Last Retrieved July 24, 2019).

about half of Iran's oil exports, most of which goes through the Straits of Hormuz², and an estimated 80% of China's oil goes through the Strait of Malacca in Southeast Asia, which has been made in to quite a tense zone with risks posed by both piracy and Chinese threat perception of potential blockage by the United States (US) Navy³. China's sensitivity to being reliant on foreign sources of oil has been exacerbated by the perceived strategic risks in having their oil supply go through these regions. As of 2018, China is now the world's largest importer of oil, and by 2020 almost 75% of its oil sources will be international⁴. Energy security for the Chinese government means finding reliable and cheap sources of energy that are not susceptible to disruption by the United States⁵. While countries such as the US are more willing to rely on market forces when it comes to oil and gas industries, the Chinese government links economic development to political legitimacy, and therefore has a less flexible approach when it comes to energy security. China is currently developing its domestic shale gas sector, exploring new sources of oil and natural gas in places like the Arctic, and looking to utilize new shipping lanes such as the Northern Sea Route to eliminate such risks.

² Faucon, Benoit, and Summer Said. "Tightened U.S. Ban on Iran Rattles Oil World." *The Wall Street Journal*, Dow Jones & Company, 22 Apr. 2019, www.wsj.com/articles/tightened-u-s-ban-on-iran-rattles-oil-world-11555956167?mod=rsswn (Last Retrieved July 24, 2019).

³ Rainwater, Shiloh. "International Law and the 'Globalization' of the Arctic: Assessing the Rights of Non-Arctic States in the High North." *Emory University School of Law*, <http://law.emory.edu/eilr/content/volume-30/issue-1/comments/international-law-globalization-arctic-rights-high-north.html#section-668f1dcd78a4d16c7e4a2f20dcac198> (Last Retrieved July 24, 2019).

⁴ MarEx. "China Surpasses U.S. as Largest Crude Oil Importer." *The Maritime Executive*, 3 Feb. 2018, www.maritime-executive.com/article/china-surpasses-u-s-as-largest-crude-oil-importer and Brady, Anne-Marie. *China as a Polar Great Power*. Woodrow Wilson Center Press, 2017, p. 92.

⁵ Downs, Erica Strecker. "China's Quest for Energy Security." *RAND Corporation*, 1 Jan. 2000, www.rand.org/pubs/monograph_reports/MR1244.html (Last Retrieved July 24, 2019).

Multilateral Agreements

As much as the Arctic has been transformed by climate change, the geopolitical climate is also in flux. The Arctic is administered by domestic laws of the Arctic states, while subject to multilateral agreements and international law. The region's premier governing body, the Arctic Council (AC), was created in 1996 to promote cooperation among the eight Arctic Member States – Canada, Denmark via Greenland and the Faroe Islands, Finland, Iceland, Norway, Russia, Sweden, and the United States via Alaska. Six organizations that represent various Arctic indigenous peoples have Permanent Participant status within the Council. Various countries have also petitioned for Observer status over assertion of their vested interests in the Arctic including resource development, shipping lanes, and climate protection. As of 2019, 14 non-Arctic states have been approved as Observers within the AC including China in 2013. As part of their admission, Observers must “Recognize Arctic States’ sovereignty, sovereign rights and jurisdiction in the Arctic⁶” and “Recognize that an extensive legal framework applies to the Arctic Ocean including, notably, the [United Nations Convention on the] Law of the Sea⁷.” In fact, the five littoral Arctic states of Russia, Canada, Norway, Denmark, and the US, signed the Ilulissat Declaration in 2008 to reaffirm the primacy of the Law of the Sea by blocking any “new comprehensive international legal regime to govern the Arctic Ocean⁸.”

⁶ “Observers.” *Arctic Council*, 7 May 2015, <http://arctic-council.org/index.php/en/about-us/arctic-council/observers> (Last Retrieved July 24, 2019).

⁷ *Ibid.*

⁸ “Arctic Ocean Conference.” *2008 Ilulissat Declaration*, 2008.

United Nations Convention on the Law of the Sea

The United Nations Convention on the Law of the Sea (UNCLOS) is an international agreement defining the rights and regulations of the use of the world's oceans. UNCLOS stipulates:

1. *Coastal States exercise sovereignty over their territorial sea which they have the right to establish its breadth up to a limit not to exceed 12 nautical miles; foreign vessels are allowed 'innocent passage' through those waters;*
2. *Coastal States have sovereign rights in a 200 nautical mile exclusive economic zone (EEZ) with respect to natural resources and certain economic activities;*
3. *Coastal States have sovereign rights over the continental shelf (the national area of the seabed) for exploring and exploiting it [up to 350 nautical miles]⁹.*

Upon ratification, countries have a ten-year period in which to make claims to extend their continental shelf by collecting and reporting bathymetric and seismic reflection data. In the Arctic, Canada, Russia, Norway, and Denmark have already made extended shelf claims and the US has yet to ratify the UNCLOS. Under the agreement, most of the natural resources in the region are divided up among the five littoral Arctic states and severely limits the ability of non-Arctic states to exploit these resources¹⁰. Furthermore, the two currently-accessible Arctic sea routes, the Northwest Passage (NWP) and the Northern Sea Route (NSR – part of the longer Northeast Passage), are claimed by Ottawa and Moscow, respectively, as internal waters under their sovereignty¹¹. In theory, foreign ships could face restrictions while travelling on these two routes or even experience denial

⁹ "Convention on the Law of the Sea." *United Nations General Assembly*, 10 December 1982, New York: United Nations.

¹⁰ Rainwater, Shiloh. "International Law and the 'Globalization' of the Arctic: Assessing the Rights of Non-Arctic States in the High North." *Emory University School of Law*, <http://law.emory.edu/eilr/content/volume-30/issue-1/comments/international-law-globalization-arctic-rights-high-north.html#section-668f1dcd78a4d16c7e4a2f20dcac198> (Last Retrieved July 24, 2019).

¹¹ *Ibid.*

of access. While China is subject to international laws and agreements, Beijing's warming relationship with Moscow and their own positioning as a "near-Arctic state" makes them a key player within the region.

Growing Influence of the Arctic

Climate change is transforming the geostrategic importance of the Arctic. Surface air temperatures in the region are warming at around twice the rate when compared to other areas of the world¹². Arctic Sea ice is also retreating at an alarming rate with it being younger, thinner, and covering less area than at any other time on record. In fact, the 12 lowest sea ice coverage extents have occurred in the past 12 years¹³. There are fears that the Arctic would experience ice-free summers in as few as 20 years¹⁴. This could bring about two big changes within Arctic geopolitics:

1. Competition for natural resources currently hidden beneath the ice and,
2. the opening of new sea lanes that would significantly reduce travel times between the Pacific and Atlantic.

In 2008, the United States Geological Survey (USGS) completed an appraisal of potential hydrocarbon reserves above the Arctic Circle (66.56° North Latitude). The report concluded that there were close to 90 billion barrels of oil, 47 trillion cubic meters of natural gas, and 44 billion barrels of natural gas liquid – of these reserves, roughly 84% is expected to occur in offshore areas¹⁵.

¹² United States, Congress, National Oceanic and Atmospheric Administration, et al. "Arctic Report Card." *Arctic Report Card*, NOAA Arctic Research Program, 2018.

¹³ *Ibid.*

¹⁴ J. A. Screen, C. Deser. *Pacific Ocean Variability Influences the Time of Emergence of a Seasonally Ice-Free Arctic Ocean*. *Geophysical Research Letters*, 2019; DOI: 10.1029/2018GL081393

¹⁵ Gautier, Donald L., et al. 2008, *Circum-Arctic Resource Appraisal: Estimates of Undiscovered Oil and Gas North of the Arctic Circle: U.S. Geological Survey Fact Sheet 2008*.

While these figures have been contested, with Norwegian company StatoilHydro claiming that the reserves are actually two to four times lower, the Arctic remains a compelling source for China's growing energy needs. This is especially true if global oil prices are high and sea ice coverage is low as both factors could offset the extra costs of exploration and production in this region.

The shrinking ice coverage is also making Arctic routes viable for longer periods of the year and will make new routes available if the trend continues. The Northern Sea Route (NSR) spanning from the Kara Strait to the Bering Sea is currently navigable without an icebreaker escort during the summer and early autumn. If sailing between a Northern European port and an East Asian city, NSR transit times are approximately 40% shorter than routes using the Suez Canal¹⁶. The commercial potential of savings on fuel costs, Suez Canal passage fees, and travel times are making Arctic routes much more appealing. In fact, Chinese state-owned COSCO (Chinese Ocean Shipping Company) started using the NSR in 2013 and has conducted 30 voyages along this route. Similarly, the Northwest Passage (NWP) offers a roughly 40% shorter voyage time over the Panama Canal route when travelling from the east coast of North America to China's eastern ports¹⁷. An alternative to shorter travel times is super slow steaming – sailing at speeds slower than 18 knots. This practice, enabled by northern sea routes, would allow a ship to arrive on the same time frame as one travelling through the Suez or Panama Canals but achieving better fuel efficiency and reducing the environmental impact. As ice coverage continues to shrink, a third route may become viable in the future. The Transpolar Sea Route (TSR) would offer the most direct route for trans-Arctic shipping

¹⁶ **Upcraft, Desmond.** *Arctic Transit: Northern Sea Route.* Royal Belgian Institute of Marine Engineers, 2012.

¹⁷ **Oskin, Becky.** "Cargo Ship Makes 1st-Ever Solo Trip Through Northwest Passage." *LiveScience*, 1 Oct. 2014, www.livescience.com/48105-cargo-ship-solos-northwest-passage.html (Last Retrieved July 24, 2019).

which would undercut both the NWP and the NSR in distance. The TSR would largely fall outside of the EEZs of the littoral Arctic states which offers lower geopolitical risks compared to the other two routes¹⁸. Though the TSR will not be a viable commercial option for another few decades, a Chinese icebreaker was one of the first major vessels to transit that route.

While there are potential advantages to the Arctic sea routes in the future, financial returns may not be immediately available. Beyond the fact that these routes are only accessible for a few months in the year, there are several other factors limiting the economic advantage. Ships utilizing the NSR must gain permission from the Russian authorities who collect transit fees and charge for icebreaking services¹⁹. While Canada does not currently charge for usage of the Northwest Passage, this matter could be subject to change²⁰. Vessels travelling along these Arctic sea routes also need specialized ice-class vessels to prevent hull damage and face significantly higher insurance rates²¹. This is largely due to logistical challenges such as lack of ports and support infrastructure along the routes, absence of viable contingency plans, and difficulty for emergency services to access the region.

¹⁸ Albert Buixadé Farré, et al. *Commercial Arctic Shipping Through the Northeast Passage: Routes, Resources, Governance, Technology, and Infrastructure*, Polar Geography, 2014.

¹⁹ G., L. "What Is the Northern Sea Route?" *The Economist*, The Economist Newspaper, 24 Sept. 2018, www.economist.com/the-economist-explains/2018/09/24/what-is-the-northern-sea-route (Last Retrieved July 24, 2019).

²⁰ Eger, Karl Magnus. "Costs and Fees on the Northwest Passage" via ARCTIS, www.arctis-search.com/ (Last Retrieved July 24, 2019).

²¹ Eger, Karl Magnus. "Marine Insurance in Arctic Waters" via ARCTIS, www.arctis-search.com/ (Last Retrieved July 24, 2019).

China's Polar Fleet

China's polar affairs began in earnest in the 1980s with the opening of an Antarctic research station overseen by the Shanghai-headquartered Polar Research Institute of China (PRIC). The research institution expanded to the north in 2003 with the establishment of the Arctic Yellow River Station in Ny-Ålesund on the Norwegian island of Svalbard. PRIC also operates four polar research stations in Antarctica. Commercially, China has also been gaining experience in building ice-class vessels, delivering a small fleet of 1A-class ships to Danish transport company Maersk. China currently has two conventionally-powered icebreaking research and supply vessels: *Xue Long*²² a retrofitted Arctic cargo ship purchased from Ukraine in 1993 and China's first domestically built icebreaker, *Xue Long 2*, which had its maiden voyage in June 2019²³. *Xue Long 2* is a highly capable and maneuverable icebreaker featuring a dual directional hull allowing it to break ice 1.5 meters thick in either direction of travel²⁴. China General Nuclear Power Group recently invited bids to construct a new nuclear-propelled icebreaker with China National Nuclear Corporation issuing a tender to build the reactor technology for the vessel. When complete, China and Russia will be the only two countries to possess nuclear-powered icebreakers. With a 30,069-ton displacement, the new Chinese icebreaker will be larger than any other nuclear-powered icebreaker in operation. Only Russia's newly-commissioned iteration of the *Arktika*-class vessel will be larger when it enters

²² English Translation: "Snow Dragon" (Traditional Chinese: 雪龍 | Simplified: 雪龙).

²³ Gady, Franz-Stefan. "China Launches First Domestically Built Polar Icebreaker." *The Diplomat*, The Diplomat, 11 Sept. 2018, <http://thediplomat.com/2018/09/china-launches-first-domestically-built-polar-icebreaker/> (Last Retrieved July 24, 2019).

²⁴ Humpert, Malte. "China Launches Domestically-Built 'Xue Long 2' Icebreaker." *High North News*, 11 Sept. 2018, www.highnorthnews.com/en/china-launches-domestically-built-xue-long-2-icebreaker (Last Retrieved July 24, 2019).

service in the early-2020s²⁵. It is widely believed that this Chinese project will be a stepping stone for the construction of a nuclear-propelled aircraft carrier²⁶. The Soviet Union went through a similar learning curve by building a series of nuclear-powered icebreakers before attempting to build a nuclear-powered aircraft carrier.

China Courting Arctic Countries

Between 2005 and 2017, it is estimated that China had invested a total of \$1.4 trillion in the Arctic states' economies²⁷. While a significant portion of these investments have been aimed at the larger economies of US, Canada, and Russia, there is worry that China may be using its economic clout to buy influence in Greenland and Iceland. Chinese foreign direct investment (FDI) in Greenland totaled \$2 billion in 2017 and while a comparatively small amount, its value almost matches the entirety of Greenland's GDP^{28,29}. The value of the Chinese FDI is also roughly three times higher than the annual block grant Greenland receives from Denmark (valued at \$610 million in 2018) as long as they remain a part of the Danish Realm³⁰. Though FDI and the block grant cannot be directly compared, many Greenlandic politicians are hoping the development of mining and

²⁵ Ibid.

²⁶ Humpert, Malte. "China's First Nuclear Icebreaker Could Serve as Test Platform for Future Nuclear Aircraft Carriers." *Arctic Today*, 26 Mar. 2019, www.arctictoday.com/chinas-first-nuclear-icebreaker-could-serve-as-test-platform-for-future-nuclear-aircraft-carriers/ (Last Retrieved July 24, 2019).

²⁷ Rosen, Mark E., and Cara B. Thuringer. "Unconstrained Foreign Direct Investment: An Emerging Challenge to Arctic Security." *CNA Analysis Solutions*, Nov. 2017.

²⁸ Ibid.

²⁹ The World Factbook. "Greenland." Central Intelligence Agency, 2015.

³⁰ "Chinese Investment May Help Greenland Become Independent from Denmark." *The Economist*, The Economist Newspaper, 3 May 2018, www.economist.com/europe/2018/05/03/chinese-investment-may-help-greenland-become-independent-from-denmark (Last Retrieved July 24, 2019).

tourism industries can substitute Danish handouts³¹. Stating “We want to rid ourselves of the block grant because we want independence³²,” Greenland’s Prime Minister Kim Kielsen indicates the island’s consideration of independence. Such sentiments present China with an avenue to economic diplomacy.

China has also been expanding its bilateral ties with Iceland. The relationship between Beijing and Reykjavik started in earnest after the Icelandic financial crisis with a \$406 million currency swap between the countries³³. This allowed the Central Bank of Iceland to diversify its foreign reserves and enabled them to lend in a more stable and in demand renminbi as opposed to the Icelandic króna. This was followed by a meeting in 2012 between then-Premier Wen Jiabao and then-Prime Minister Jóhanna Sigurðardóttir to sign agreements regarding cooperation in the Arctic on marine and polar science as well as geothermal energy³⁴. The bilateral relationship was solidified after the two countries signed a free trade agreement in 2013, the first of its kind between China and a European country³⁵.

Beyond Greenland and Iceland, the rapprochement between Beijing and Moscow is going to be a key feature in Arctic geopolitics. Though the two countries have had a very complicated relationship, their goals seem to be aligning in the Arctic to the ire of the United States. The countries want to work together to develop the NSR by establishing ports and related infrastructure

³¹ **Ibid.**

³² **Ibid.**

³³ **Guschin, Arthur. “China, Iceland and the Arctic.” *The Diplomat*, The Diplomat, 20 May 2015, <http://thediplomat.com/2015/05/china-iceland-and-the-arctic/> (Last Retrieved July 24, 2019).**

³⁴ **Shanley, Mia. “China’s Wen in Iceland, Eyes on Arctic Riches.” *Reuters*, Thomson Reuters, 20 Apr. 2012, www.reuters.com/article/us-china-europe/chinas-wen-in-iceland-eyes-on-arctic-riches-idUSBRE83J0M920120420 (Last Retrieved July 24, 2019).**

³⁵ **Guschin, Arthur. “China, Iceland and the Arctic.” *The Diplomat*, The Diplomat, 20 May 2015, <http://thediplomat.com/2015/05/china-iceland-and-the-arctic/> (Last Retrieved July 24, 2019).**

along the route as a part of the Chinese Polar Silk Road. China is also aiming to diversify its energy mix, while Russia can provide a long-term and reliable source of petrochemicals. The Sino-Russian energy collaboration will be discussed in more detail below.

China's NOCs and the Central Government

Even with China's insistence that it will be a responsible stakeholder in the region, other parties are concerned that China will put its own strategic interests above institutional norms that have historically managed Arctic relations³⁶. These concerns revolve around the inclusion of the Arctic into the Belt and Road Initiative (BRI) as well as the fact that China's oil companies are state-owned. Indeed, China's NOCs are largely owned by the government, administered by the State-owned Assets Supervision and Administration Commission (SASAC), and top personnel are directly chosen by the Chinese Communist Party (CCP)'s Central Organization Department (COD)³⁷. Due to the dominance of China's NOCs as well as oil and gas being considered a top area of national security, there is a high barrier for Chinese private energy companies to enter into the energy industry. In this sense, the large state-owned NOCs have a monopoly on China's oil and gas sectors³⁸. However, it would be inaccurate to say that NOCs are simple puppets for the state. The Chinese government bureaucracy is a complex web with ministries, local governments, and state-owned enterprises (SOEs) representing different interests and operating within a variety of different

³⁶ Grieger, Gisela. *China's Arctic Policy: How China Aligns Rights and Interests*. European Parliamentary Research Service, May 2018, [www.europarl.europa.eu/thinktank/en/document.html?reference=EPRS_BRI\(2018\)620231](http://www.europarl.europa.eu/thinktank/en/document.html?reference=EPRS_BRI(2018)620231) (Last Retrieved July 24, 2019).

³⁷ *Business and Politics in China: The Oil Executive Reshuffle of 2011*, pg. 5

³⁸ Lee, John. "China's Geostrategic Search for Oil." *The Washington Quarterly*, p. 81.

ranks and networks³⁹. For example, CNPC and Sinopec are SOEs at the same rank as a government ministry and have a relatively large amount of autonomy when compared to CNOOC which has only a bureau ranking⁴⁰. The CCP also appoints the top members of the governments various organs and ministries such as the National Energy Administration. As of 2017, there are 17 agencies and ministries that cover Arctic governance and whose responsibilities often overlap resulting in difficulties in coordinating efforts⁴¹. This provides spaces for the rather formidable NOCs to influence policy and pursue their own interests. Within Chinese public discourse, these large oil companies are often seen as pursuing their own economic interests as opposed to the public good⁴². In the past, NOCs have even been accused of deliberately causing oil shortages to compel the central government to raise prices of gasoline⁴³.

Chinese NOC strengths in the advent of weak governmental regulation usually entails a prioritization of commercial benefits. Still, NOCs take cues from initiatives set by the central government, and since the Xi Jinping administration, there has been some more centralized control. As part of China's "going out" strategy for its NOCs, the government has encouraged its companies to invest overseas, which puts these NOCs in competition with other energy

³⁹ Lampton, David. "A Plum for a Peach: Bargaining, Interest, and Bureaucratic Politics in China." *Studies on China*, 1992.

⁴¹ Brady, Anne-Marie. *China as a Polar Great Power*. Woodrow Wilson Center Press, 2017. p. 114.

⁴² Downs, Erica S. "Who's Afraid of China's Oil Companies." *Brookings.edu*, Brookings Institution, 27 July 2010, www.brookings.edu/wp-content/uploads/2016/06/07_china_oil_downs.pdf (Last Retrieved: July 24, 2019).

⁴³ *Ibid* (Last Retrieved July 24, 2019).

companies^{44,45}. Increased market liberalization since 2014 (such as allowing private oil refineries referred to as ‘teapots’ to import oil) has created more competition for NOCs and will likely force them to implement more market-based behavior⁴⁶.

China’s Search for Arctic Oil

The extensiveness of China’s Arctic strategy can also be illustrated by the sailing of Chinese naval vessels off the coast of Alaska in 2015, before one of China’s largest military parades took place⁴⁷. China’s strategy in this region is a mixture of the political and economic. This is largely a reflection of China’s view that the energy industry is a vital for its political legitimacy and should be regulated by the state. However, until the Chinese government released their 2018 White Paper detailing its Arctic policy, China’s involvement in the polar region was largely focused on scientific research. In 1992, Chinese scientists joined German universities in China’s first Arctic research program. In 2009 at a conference in Germany, Foreign Affairs Vice Minister Hu Zhengyue said that China did not have any official Arctic strategy⁴⁸.

⁴⁴ Brady, Anne-Marie. *China as a Polar Great Power*. Woodrow Wilson Center Press, 2017. p. 5.

⁴⁵ Wong, Audrye. “China’s Economic Statecraft under Xi Jinping.” *Brookings.edu*, Brookings, 22 Jan. 2019, www.brookings.edu/articles/chinas-economic-statecraft-under-xi-jinping/ (Last Retrieved July 24, 2019).

⁴⁶ Meidan, Michael. *The Structure of China’s Oil Industry: Past Trends and Future Prospects*. The Oxford Institute for Energy Studies, May 2016, www.oxfordenergy.org/wpcms/wp-content/uploads/2016/05/The-structure-of-Chinas-oil-industry-past-trends-and-future-prospects-WPM-66.pdf (Last Retrieved July 24, 2019).

⁴⁷ Brady, Anne-Marie. *China as a Polar Great Power*. Woodrow Wilson Center Press, 2017, p. 1.

⁴⁸ Olga Alexeeva and Frédéric Lasserre, *The Snow Dragon: China’s Strategies in the Arctic*, China Perspectives, 2012. <http://chinaperspectives.revues.org/5958> (Last Retrieved July 24, 2019).

Until the mid-2010s, Chinese oil companies had been hesitant to explore Arctic energy sources, having little capacity to do so⁴⁹. Furthermore, unlike in the South China Sea and East China Sea, China makes no territorial claims in the Arctic, but rather wants usage rights for resources and sea lane routes. Thus explaining why China has generally assumed a conciliatory stance when it comes to its involvement in the Arctic, abiding by international law and cooperating with regional Arctic countries in research and energy exploration^{50,51}. For example, in 2014, the Chinese NOC CNPC bought 10% of the Vankor oil field operated by Rosneft. In 2016, the private Russian energy company Novatek sold 9.9% stake in the Yamal LNG project to China's Silk Road Fund⁵². In 2017, CNPC made a deal with Novatek to ship 3 million tons of gas from the Yamal plant, and Novatek also sold CNPC 20% stake in the Yamal LNG project⁵³. CNOOC signed contracts with Icelandic energy companies in 2013 to conduct oil and gas exploration on the Icelandic continental shelf. While CNOOC announced a withdrawal from the deal in 2018, joint ventures such as this are emblematic of how China has generally approached its Arctic energy exploration policy⁵⁴.

⁴⁹ Brady, Anne-Marie. *China as a Polar Great Power*. Woodrow Wilson Center Press, 2017, p. 136.

⁵⁰ MacDonald, Adam. "China as an Emerging Arctic Player: Compromising Canada's Northern Interests?" *Canadian Naval Review*, vol. 12, no. 2, 2016, p. 9.

⁵¹ Lasserre, F., Huang, L., & Alexeeva, O. (2017). China's strategy in the Arctic: Threatening or opportunistic? *Polar Record*, 53(1), 31-42. doi:10.1017/S0032247415000765

⁵² Soldatkin, Vladimir. "Russia's Novatek Completes Deal to Sell Yamal LNG Stake to China's..." *Reuters*, 15 Mar. 2016, www.af.reuters.com/article/commoditiesNews/idAFR4N0ZC01H (Last Retrieved July 24, 2019).

⁵³ Wishnick, Elizabeth. "China's Interests and Goals in the Arctic: Implications for the United States." *The Letort Papers*, Mar. 2017, p. 37.

⁵⁴ Overthecircle. "Stumbling Block: China-Iceland Oil Exploration Reaches an Impasse." *Over the Circle*, 24 Jan. 2018, www.overthecircle.com/2018/01/24/stumbling-block-china-iceland-oil-exploration-reaches-an-impasse/ (Last Retrieved July 24, 2019).

The Arctic White Paper

The 2018 Arctic White Paper, however, puts the Arctic squarely within China's grander geopolitical strategy, with its Polar Silk Road being part of China's grand Belt and Road Initiative linking China to Europe through the Arctic Ocean⁵⁵. The White Paper also discusses China's role as a stakeholder in Arctic affairs, showing that China will not be left out of Arctic governance when it comes to resource excavation or sea route administration. In fact, the White Paper refers to China as a near-Arctic state despite China not having territory in the Arctic Circle, a term that first saw official use in 2013. The White Paper refers to Arctic governance as a core component in building a "community of common destiny" in which China plays a key role. In terms of oil and gas exploitation, the White Paper argues that China will respect the sovereign rights of the Arctic states and will work with them to acquire energy resources⁵⁶. In fact, because of China's relatively distant geographical location in relation to the Arctic, China must work with the status quo regional institutions and countries in order to achieve its interests in the area. While the white paper emphasizes China's respect for the sovereignty of Arctic countries, the document also mentions the rights that non-Arctic states have in the region, arguing that Arctic affairs also affect non-Arctic states in order to further justify its increasing Arctic presence^{57,58}. Despite the White Paper's assertive stance on China's stake in the Arctic, China has continued to sign joint-venture agreements with

⁵⁵ Lim, Kong Soon. "China's Arctic Policy & the Polar Silk Road Vision." *Arctic Yearbook 2018*, 2018.

⁵⁶ *China's Arctic Policy*,

www.english.gov.cn/archive/white_paper/2018/01/26/content_281476026660336.htm (Last Retrieved July 24, 2019). White Paper.

⁵⁷ Grieger, Gisela. *China's Arctic Policy: How China Aligns Rights and Interests*. European Parliamentary Research Service, May 2018,

[www.europarl.europa.eu/thinktank/en/document.html?reference=EPRS_BRI\(2018\)620231](http://www.europarl.europa.eu/thinktank/en/document.html?reference=EPRS_BRI(2018)620231) (Last Retrieved July 24, 2019).

⁵⁸ Eiterjord, Trym Aleksander. "China's Busy Year in the Arctic." *The Diplomat*, The Diplomat, 30 Jan. 2019, www.thediplomat.com/2019/01/chinas-busy-year-in-the-arctic/ (Last Retrieved July 24, 2019).

Russia. In April 2019, Novatek sold stake in the Arctic LNG 2 terminal to two Chinese oil SOEs – CNOOC and CNPC at the Second Belt and Road Forum.

Strategic Summary

Strengths

- With climate change facilitating Arctic resources to become more accessible, oil companies are provided with more investment opportunities in the region, especially when it comes to offshore drilling. China's relatively new economic interest in the Arctic also provides a space for cooperation with oil companies that already have experience with extraction in the region.
- The Arctic region is historically an area driven by cooperation between member states; cooperation-driven norms will likely increase between government and countries given the complexity and difficulty with oil and gas extraction and resource management in the harsh Arctic geography.
- In addition to the eight member states, the Arctic Council has extended Observer status to 14 non-Arctic states, Permanent Participant status to six organizations representing Arctic indigenous communities, and Nongovernmental Observer status to various groups. This provides an arena for extended stakeholder collaboration for investments in sustainable development and environmental protection in the region.

Weaknesses

- The UNCLOS is the main framework of governance in the Arctic and due to exclusive economic zone claims, the Arctic is largely split between five countries (Canada, Denmark, Norway, Russia, and the US). This limits the ability of non-Arctic states to lay claim to resources in the region.
- Several non-Arctic countries have claimed vested interests in the Arctic on the lines of open shipping lanes and promoting environmental protection. China's declaration of being a

“near-Arctic power” increases tension in the region and paves a path for international conflict.

- Oil and gas are non-renewable forms of energy that exacerbate climate change and its extraction could have a damaging effect on the local environment and wildlife. Furthermore, it could affect marine wildlife and the Arctic fishing industry.

Tactical Breakdown

Strategic

- According to China’s 2018 white paper on its Arctic Policy, the country wants to establish a “Polar Silk Road” through Arctic trade routes as an extension of its Belt and Road Initiative.
- Energy security is considered a national concern for China, which could mean less flexibility and a more aggressive stance in the future when it comes to resource extraction. However, this has yet to be seen. China is currently content to help shape Arctic norms and cooperate with regional countries.
- China has recently launched their first domestically-built icebreaker *Xue Long 2*. China has also issued a tender, seeking Chinese companies to build a nuclear-powered icebreaking vessel. When complete, they will be only the second country (along with Russia) to have a nuclear-propelled icebreaker. This will allow them to project influence in the region as a part of their new Polar Strategy.

Operational

- The Northwest Passage and the Northern Sea Route are only accessible during the summer and early autumn. Vessels also need a reinforced hull to protect against ice along these routes. At present, the shorter Transpolar Sea Route, is only accessible by icebreakers.
- There is a lack of ports and other supporting infrastructure along both Arctic sea routes. The logistical challenge, deficiency of viable contingency plans, and lack of emergency services will result in greater risk for trans-Arctic vessels.
- Due to sea ice coverage, only the Northwest Passage and the Northern Sea Route are currently accessible and claimed as “internal waters” by Canada and Russia, respectively. At

present, this creates several natural, narrow straits that could present operational chokepoints similar to the Suez or Panama Canals.

Financial

- An estimated 84% of hydrocarbon reserves in the Arctic occur offshore and offshore oil and gas drilling is much more expensive than onshore extraction. There is also a need to invest in ice-class vessels and other support infrastructure. If oil and gas prices are low, high extraction costs may eliminate any financial incentive.
- Though companies may save money by bypassing Suez or Panama Canal fees, the Russian government collects transit fees and charges for icebreaking services along the Northern Sea Route. At present, Canada does not charge fees for vessels travelling on the Northwest Passage, but that is subject to change. Vessels travelling along the Arctic routes also face significantly higher insurance rates.
- Because of China's distance from the Arctic, China must cooperate with Arctic countries to extract resources in the region. Most of China's joint ventures are conducted with Russian companies. Costs are high and joint ventures could help decrease operational expenses.

Compliance

- As Observer Members of the Arctic Council, non-Arctic countries must agree to "Recognize Arctic States' sovereignty, sovereign rights and jurisdiction in the Arctic."
- Countries must reaffirm the primacy of the United Nations Law of the Sea and must abide by its rules which delineate territorial waters and exclusive economic zones.
- There are also sentiments within the international community that while China's Arctic white paper asserts its compliance with and respect of international law and regional norms, its actions in the South China Sea have created fears that China will seek to erode the Arctic's regulatory environment as it becomes more powerful.

Conclusion

As the Arctic region becomes a more significant area for oil and gas exploration and development, a wider range of actors will seek to influence the ways Arctic resources and trade routes are managed. Along with China's fast-growing economy comes its need to continue to find new, secure sources for energy such as in the Arctic. With expectations that climate change will free up access to new sea lanes such as the Northern Sea Route and offshore oil and gas, new economic opportunities and risks will arise. China's NOCs have taken advantage of this opening and have invested in a variety of oil and gas projects in order to build up the country's presence in the region. Nevertheless, fears within the international community continue as to whether China's motives are purely commercial or will pursue a more aggressive geopolitical strategy.

Figures

Figure 1: Commercial Arctic shipping through the Northeast Passage: Routes, resources, governance, technology, and infrastructure.

<https://www.tandfonline.com/doi/full/10.1080/1088937X.2014.965769> (Last Retrieved: July 24, 2019).



Figure 2: Shipping plans grow as Arctic ice fades.

https://e360.yale.edu/features/cargo_shipping_in_the_arctic_declining_sea_ice (Last Retrieved: July 25, 2019).

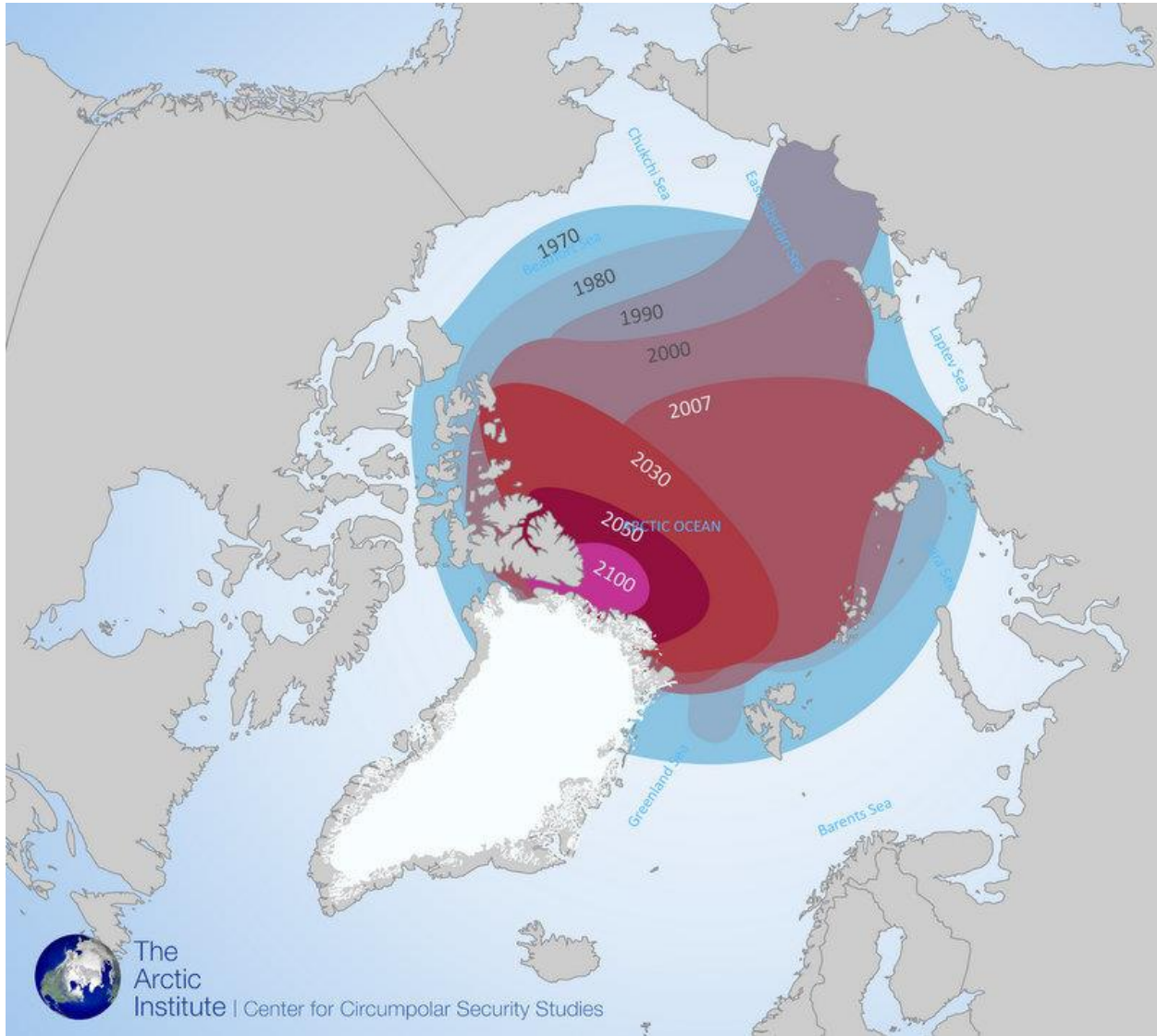


Figure 3: Establishing maritime boundaries in Arctic waters.

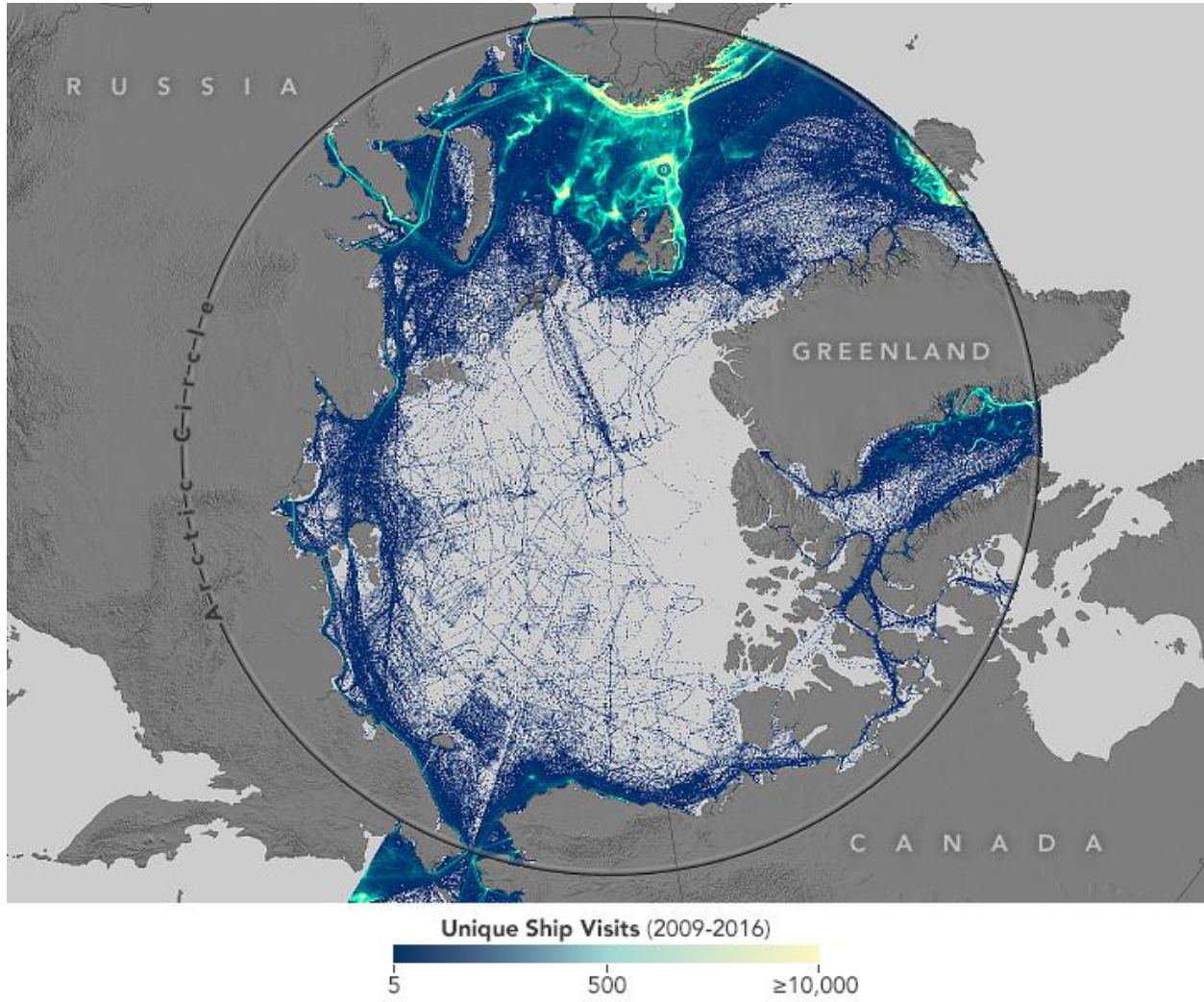
<https://www.thearcticinstitute.org/establishing-maritime-boundaries-arctic-waters/>

(Last Retrieved: July 24, 2019).



Figure 4: Shipping responds to Arctic ice deadline.

<https://earthobservatory.nasa.gov/images/91981/shipping-responds-to-arctic-ice-decline> (Last Retrieved: July 25, 2019).





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