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## CANADA'S ARCTIC: A CASE FOR CO-OPERATIVE CHINESE DEVELOPMENT

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**CANADA’S ARCTIC:  
A CASE FOR CO-OPERATIVE CHINESE DEVELOPMENT**

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## ABSTRACT

As global warming irrevocably alters the Arctic environment, shifts in economic strength and international influence are also changing the world's social, economic and political alliances. China does not have an articulated Arctic policy, but as one of the world's most economically prosperous nations, the Arctic presents new opportunities to expand China's wealth and influence. Consistent with a desire to profit from the Arctic and shape important global issues, China has made significant efforts to join the Arctic Council as a permanent observer.

Canada, as an Arctic coastal state with a small population and a large geographic area, is ill-equipped to develop its northern resources, but stands to gain from direct foreign investment and co-operation within the boundaries of international law. Canada's Arctic priorities are rooted in the promotion of Canadian sovereignty, governance, northern community development, environmental protection, and contribution to the defence of North America.

China's desire for economic growth and its quest for additional international influence combined with Canada's enthusiasm for northern development represent a convergence of interests. Chinese industry's need for natural resources and the country's reliance on transoceanic commercial shipping make China an excellent candidate for direct foreign investment and international co-operation in the development of Canada's Arctic. By actively and positively engaging China on matters that concern the Arctic, Canada has an opportunity to influence one of the world's most powerful 21<sup>st</sup> century nations.

*There is a new world emerging above the Arctic Circle.*

– Canadian Prime Minister John G. Diefenbaker, 1961

## **CHAPTER 1: INTRODUCTION**

Our world is experiencing unprecedented change. Transformation in the political, social and economic realms is having monumental effects on the way our tightly integrated world operates. State-sponsored terrorism and transnational crime, the consequences of failed and failing states, the remarkable advent of social media, the industrialization of third-world countries, and globalization have all had a profound impact on international politics, trading markets, and warfare. Perhaps even more alarming, the natural world is undergoing a significant makeover. At the root of Earth's environmental evolution is climate change, which poses an enormous threat to all species on Earth. According to Mark Serreze in NOVA's *Extreme Ice*, "Many of the changes we're seeing are unfolding faster than our ability to really understand them."<sup>1</sup> The complexity of an Arctic melt and the impact on the Earth are exceedingly difficult to predict:

Changes in climate can at times move far more slowly than we expect. They can also move far more rapidly. The most important thing for us to understand is that we don't know, for certain, what changes will come. We only know the range of possibilities. And at one end of that range, things may not be so terrible. At the other end of the range we have deep reason for concern.<sup>2</sup>

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<sup>1</sup>*Extreme Ice*, DVD, 52:51, directed by Noel Dockstader (Boston: NGHT Inc. and WGBH Educational Foundation, 2009).

<sup>2</sup>Ramez Naam, "Arctic Sea Ice: What, Why and what Next," Scientific American, last modified 21 September 2012, <http://blogs.scientificamerican.com/guest-blog/2012/09/21/arctic-sea-ice-what-why-and-what-next/>.

In effect, the shadow of global warming and the uncontrollable effects of an Arctic meltdown have become an underrated spark for worldwide political, social and economic change. As the world's nations jockey to take advantage of the new economic and geopolitical opportunities offered by a more hospitable Arctic environment, realignment among the world's elite powers is at stake.

The world's thirst for fossil fuels and natural resources continues to grow as countries modernize to 21<sup>st</sup> century Western standards. The industrialization of third-world countries continues to inflate the global economic base requiring new sources of ore, minerals and fuel. Chief among those modernizing nations is China. Though rarely considered a third-world country because of its vast economic influence and large manufacturing base, China's industrialization and ongoing social class realignment generate a high demand for energy and materiel. In the last 30 years, China's poverty rate has fallen from approximately 65 percent to less than 10 percent allowing 500 million Chinese citizens to rise out of poverty.<sup>3</sup> Over the next five years, China plans to expand its middle class, thereby driving a large demand for resources as millions of Chinese purchase new consumer electronics, automobiles, and home appliances.

The Arctic remains one of the last locations on Earth to be fully exploited for its natural resources, however, due to its rapid and escalating thaw, that probably won't last. Much of the developed world, including Canada and China, is squarely fixed on the Arctic as a resource-rich frontier. David Suzuki, in a 2009 episode of *The Nature of*

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<sup>3</sup>The World Bank, *China 2030: Building a Modern, Harmonious, and Creative High-Income Society* (Washington, D.C.: International Bank for Reconstruction and Development / The World Bank and the Development Research Center of the State Council, P.R. China, 2013), 4.



Things, described the Arctic as “a treasure chest of natural resources.”<sup>4</sup> In addition to its potential for vast natural resources, the Arctic’s strategic location offers meaningful time and cost savings in transoceanic shipping between manufacturing hubs in Asia and markets in North America and Europe. As the Arctic melts and technology evolves to support extreme-weather mining, fossil fuel extraction, and northern shipping, the prominence of the Arctic in geopolitical affairs will increase.

This paper will clearly demonstrate China’s interest in the Arctic is a benign and natural consequence of its national strategy, and in consideration of Canada’s domestic priorities, Canada should judiciously engage China in mutually beneficial endeavours to develop northern Canadian communities. Chinese economic growth and the ongoing effects of climate change and globalization are driving China’s thirst for natural resources and new Arctic shipping routes. Canada, as a littoral Arctic state with a small population and a large geographic area, is ill-equipped to develop its northern resources, but stands to gain from direct foreign investment and co-operation within the boundaries of international law. China's desire for economic growth and its quest for additional international influence combined with Canada’s enthusiasm for northern development represent a convergence of interests. By actively and positively engaging China on matters that concern the Arctic, Canada has an opportunity to influence one of the world's most powerful 21<sup>st</sup> century nations.

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<sup>4</sup>Von Hlatky, *Arctic Meltdown: A Changing World*.

## Documenting the Arctic Thaw

The severity of the global warming trend is difficult to dismiss in the face of mounting empirical data and demonstrable environmental change.<sup>5</sup> Observational findings corroborate that the amount of annual ice coverage is decreasing at an alarming rate. In September, 2007 new records were set for the smallest Arctic sea ice extent ever recorded. “The apparent five-day 2007 minimum was 4.13 million square kilometers (1.59 million square miles), compared to 5.32 million square kilometers (2.05 million square miles) in 2005.”<sup>6</sup> In just two years, the Arctic ice cap lost over a million square kilometers of area. Fast forward to September 2012, and the Arctic ice cap was once again setting new record lows:

Arctic sea ice extent reached its lowest point this year on September 16, 2012 when sea ice extent dropped to 3.41 million square kilometers (1.32 million square miles). Averaged over the month of September, ice extent was 3.61 million square kilometers (1.39 million square miles). This places 2012 as the lowest ice extent both for the daily minimum extent and the monthly average.<sup>7</sup>

According to Irene Quaile in the Deutsche Welle newspaper, “The polar ice caps have melted faster in last 20 years than in the last 10,000.”<sup>8</sup> Ramez Naam seems to corroborate this fact in his submission to *Scientific American* noting, “Strikingly, two thirds of the loss of ice has happened in the 12 years since 2000.”<sup>9</sup> Visually, the extent of

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<sup>5</sup>Dockstader, *Extreme Ice*.

<sup>6</sup>“NSIDC Arctic Sea Ice News Fall 2007,” U.S. National Snow & Ice Data Center, last accessed 16 February 2013, [http://nsidc.org/news/press/2007\\_seaiceminimum/20070810\\_index.html](http://nsidc.org/news/press/2007_seaiceminimum/20070810_index.html).

<sup>7</sup>“Press Release: Arctic Sea Ice Shatters Previous Low Records,” U.S. National Snow & Ice Data Center, last accessed 16 February 2013, [http://nsidc.org/news/press/20121002\\_MinimumPR.html](http://nsidc.org/news/press/20121002_MinimumPR.html).

<sup>8</sup>Irene Quaile, “Polar Ice Sheets Melting Faster than Ever,” Deutsche Welle, last modified 4 February 2013, <http://www.dw.de/polar-ice-sheets-melting-faster-than-ever/a-16432199>.

<sup>9</sup>Naam, *Arctic Sea Ice: What, Why and what Next*.

sea ice loss can be seen comparing Figures 1.1 and 1.2. Of note, the sea ice extent for 2012 is noticeably smaller than the previous minimum in 2007, and both images depict a dramatically smaller ice extent than the 1979-2000 average identified by the magenta line.

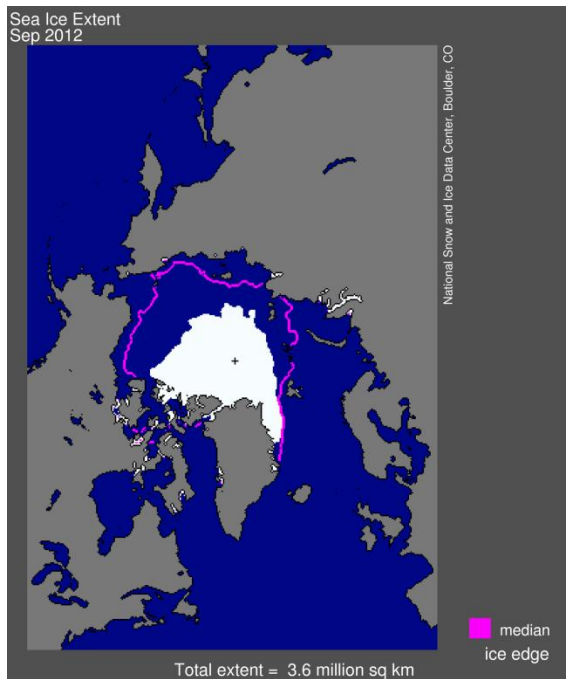


Figure 1.1 - Sea ice extent Sep 2012

Source: U.S. NSIDC webpage,

[http://nsidc.org/news/press/20121002\\_MinimumPR.html](http://nsidc.org/news/press/20121002_MinimumPR.html)

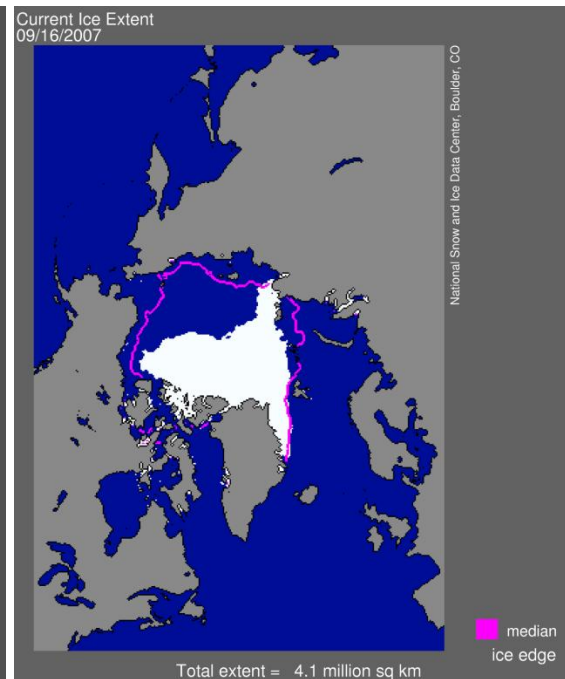


Figure 1.2 - Sea ice extent Sep 2007

Source: U.S. NSIDC webpage,

[http://nsidc.org/news/press/2007\\_seaice\\_minimum/20070810\\_index.html](http://nsidc.org/news/press/2007_seaice_minimum/20070810_index.html)

Previous estimates in the Intergovernmental Panel on Climate Change (IPCC) report of 2007 predicted an ice-free summer (which means no multiyear ice in the

summertime) by the end of the century.<sup>10</sup> New assessments by scientists such as Julienne Stroeve, from the U.S. National Snow and Ice Data Centre, continue to round down those earlier estimates to the 2030 to 2050 timeframe.<sup>11</sup> Some experts' views are even more extreme, such as that of Dr. David Barker. In an interview on *The Nature of Things*, Dr. Barker reiterates that estimates of a seasonally ice free Arctic have come down from around the year 2100 to approximately 2015.<sup>12</sup>

Regardless of the exact year, the data and scientific opinion clearly warns that we are quickly moving toward summer seasons with an ice-free Arctic. Although the long-term environmental effects cannot be fully understood or quantified at this time, it is clear there will be certain geopolitical and economic outputs from this change in the status quo. Undoubtedly, new economic opportunities from receding ice sheets will drive northern investment and competition, and the geopolitical posturing between countries to control the riches of the Arctic has already begun.

### **All Eyes on the Arctic Thaw**

For hundreds of years, the Arctic sea ice has been an insurmountable barrier to rampant human activity in the North. As the sea ice retreats, the potential for new shipping lanes and easier access to valuable resources has become apparent. Limited access to hidden Arctic resources has already been fruitful, and scientific research

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<sup>10</sup>Susan Solomon et al., *Climate Change 2007 - the Physical Science Basis Working Group I Contribution to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change* (New York: Cambridge University Press, 2007), 750.

<sup>11</sup>"Arctic Ice Cover Shrinks to New Low After Summer Thaw," *CBC News*, last modified 20 September 2012, <http://www.cbc.ca/news/technology/story/2012/09/19/arctic-ice-cover-melt.html>.

<sup>12</sup>Von Hlatky, *Arctic Meltdown: A Changing World*.

indicates there are many more resources available under the frozen tundra and ice sheets. The United States Geological Survey (USGS) estimates that 13 to 30 percent of the world's undiscovered hydrocarbons lie in the Arctic.<sup>13</sup> As world energy prices continue to climb and demand increases, the economic payoff associated with large, expensive natural resource projects in the Arctic will make sense for the industry.

Common issues, such as border security and territorial sovereignty, are being re-evaluated by various Arctic nations as the conditions in the North are altered. For example, in Canada and the United States (U.S.), the mandate of the North American Aerospace Defence (NORAD) Command has expanded to include the maritime environment as well as the aerospace domain. The maritime shipping component and the ability to enter North America along our coastlines have been given new priority within NORAD's mandate.

The Arctic Council holds significant importance in the sphere of Arctic issues as evidenced by the breadth of countries that wish to participate in the council. The Arctic Council currently comprises eight permanent members, namely Canada, Denmark, Finland, Iceland, Norway, Russia, Sweden and the U.S.<sup>14</sup> The council also includes six permanent participants that represent approximately 500,000 indigenous people of the Arctic.<sup>15</sup> Finally, the Arctic Council has added six European countries, nine intergovernmental and inter-parliamentary organizations and 11 non-government

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<sup>13</sup>Jessica Robertson and Brenda Pierce, "USGS Release: 90 Billion Barrels of Oil and 1,670 Trillion Cubic Feet of Natural Gas Assessed in the Arctic," United States Geological Survey, last modified 23 July 2008, <http://www.usgs.gov/newsroom/article.asp?ID=1980>.

<sup>14</sup>Arctic Council, "About Us," last accessed 18 February 2013, <http://www.arctic-council.org/index.php/en/about-us>.

<sup>15</sup>Arctic Council, "Permanent Participants," last accessed 18 February 2013, <http://www.arctic-council.org/index.php/en/about-us/permanentparticipants>.

organizations that have been granted Observer status.<sup>16</sup> In addition to the extensive group of governments and organizations already formally involved with the Arctic Council, another 16 countries and/or organizations have applied for observer status.<sup>17</sup>

Among the applicants for observer status is the People's Republic of China (PRC). The PRC (a.k.a. China) has invested significant resources and demonstrated a keen interest in the Arctic during the last decade. Among other Arctic endeavours, China has a research station in the Arctic, it owns the world's largest non-nuclear icebreaker, and China has repeatedly applied for permanent observer status at the Arctic Council since 2006.<sup>18</sup>

Canada and China have overlapping interests in the Arctic, but their perspectives on the issues are extremely distinct. China is investing in the Arctic because of its potential for natural resources, new shipping routes, and in a bid to build greater influence among the international community. Canada is intent upon developing its northern communities and exercising sovereignty over its Arctic maritime zone and internal waterways. Although the resources within Canadian borders are not truly threatened, environmental protection of the fragile Arctic, enforcement of Canadian Arctic shipping regulations, social and economic development of Canada's aboriginal communities, and Canada's obligation to secure its own borders to prevent illegal

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<sup>16</sup>Arctic Council, "Observers," last accessed 18 February 2013, <http://www.arctic-council.org/index.php/en/about-us/partners-links>.

<sup>17</sup>*Ibid.*

<sup>18</sup>"China, Korea, EU Woo Arctic Council at Norway Conference," Nortext Publishing Corporation (Iqaluit), last modified 22 January 2013, [http://www.nunatsiaqonline.ca/stories/article/65674china\\_korea\\_eu\\_woo\\_arctic\\_council\\_at\\_norway\\_conference/](http://www.nunatsiaqonline.ca/stories/article/65674china_korea_eu_woo_arctic_council_at_norway_conference/).

smuggling and deter transnational crime are paramount on Canada's agenda.<sup>19</sup> The means by which both countries balance co-operation and good international relations will likely determine the success of both Canada and China's Arctic ambitions.

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<sup>19</sup>Canada, *Statement on Canada's Arctic Foreign Policy: Exercising Sovereignty and Promoting Canada's Northern Strategy* (Ottawa: Canada Communications Group, 2010), 3, 4-8, 11-14, 16-24.

## CHAPTER 2: LITERATURE REVIEW

China's meteoric rise within the global power echelons, and the associated effects of said rise, has become a highly debated topic among international pundits, scholars, and political representatives. It is not expected that China's interest in the Arctic is going to wane, thus it is important to appreciate how China expects to benefit from its Arctic involvement, and how Arctic states – Canada, in particular - can manage their own sovereign rights while benefiting from China's attention to the world's newest strategic region. This chapter will summarize the views of noted experts related to China's Arctic ambitions and how the Canada should view China's emergence as an Arctic player.

An expert in Chinese foreign policy and northeast Asia security issues, Linda Jakobson has classified China's Arctic policies to be in a “nascent” stage of development. Jakobson notes that “China has not published an Arctic strategy and is not expected to do so in the near- to medium-term.”<sup>20</sup> China can realize legitimate economic benefits by cultivating Arctic business opportunities, however, it is also wants “...to be part of the Arctic order and influence discussions and decisions on how the Arctic should be governed.”<sup>21</sup> Assertive views on China's role in the Arctic have noticeably curtailed since China's second deferral on Arctic Council permanent observer status in 2011 (leading to further doubt about Chinese respect for sovereignty in the Arctic), although benign investment and political liaisons with Arctic states have continued.

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<sup>20</sup>Linda Jakobson and Jingchao Peng, *China's Arctic Aspirations* (Solna, Sweden: Stockholm International Peace Research Institute, 2012), v.

<sup>21</sup>*Ibid.*



Because of China's insistence on respect for sovereignty and its preoccupation with staunchly defending its perceived sovereign rights in the South and East China seas, China can be expected to continue to respect the sovereign rights of the Arctic littoral states. In the near- to medium-term it is hard to envision China being genuinely assertive in the Arctic—despite suspicions of other countries.<sup>22</sup>

Humpert argues that China's economic interests in the Arctic are subordinate to its geopolitical objectives. In Humpert's view, China's true Arctic interest is the geopolitical slant:

[T]he driving force of China's interest in the region is based on geopolitical considerations, including enhancing its ability to exert influence in the Arctic through regional strategic partnerships. China's recent political and economic efforts in the region indicate that China regards partnerships with smaller Arctic states as not only key to gaining influence in the Arctic, but also to enhancing its standing and role internationally.<sup>23</sup>

Most literature recognizes China's increasing economic and diplomatic interest in the Arctic, but in the absence of a formal expressed strategy for the Arctic region, it seems natural for some pundits to question China's true sentiment. Gang Chen articulates two opposing views: either China is genuinely not ready to communicate an Arctic strategy because it is a minor piece of their international platform that is yet to be fully researched and sanctioned; or, China is deceptively hiding its true intentions in the Arctic until such time as it has the influential power to enforce its decisions.<sup>24</sup> Chen concludes that due to its status as a non-Arctic state and its currently limited ability to influence Arctic affairs, "China has to adopt a low-profile tactic through avoiding confrontation

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<sup>22</sup>*Ibid.*, vi.

<sup>23</sup>Malte Humpert and Andreas Raspotnik, "From 'Great Wall' to 'Great White North': Explaining China's Politics in the Arctic," *European Geostrategy*, last accessed 24 February 2013, <http://europeangeostrategy.ideasoneurope.eu/files/2012/08/Long-Post-2.pdf>, 1.

<sup>24</sup>Gang Chen, "China's Emerging Arctic Strategy," *The Polar Journal* 2, no. 2 (2012): 358, <http://dx.doi.org/10.1080/2154896X.2012.735039>.

from major littoral states, in accordance with basic principles that guide virtually every relevant aspect of its national grand strategy in the post-cold war era.”<sup>25</sup> Aaron Friedberg summarizes the Chinese grand strategy in four points:

- *avoid conflict*, primarily with the United States
- *build comprehensive national power*
- *advance incrementally* in order to consolidate a position of strength
- *maintain stability, defend sovereignty, achieve pre-eminence, and pursue parity*<sup>26</sup>

Friedberg states that over the last 20 years, the imports fueling China’s economic growth have expanded more rapidly than China’s strategic reach. As a result, “...competition for global resources and fear of possible supply disruptions and sharp price increases...could strengthen the hand of those in China who favor a more aggressive and militant foreign policy.”<sup>27</sup> At this time, however, Friedberg notes that China’s military capabilities are insufficient to guarantee uninterrupted access to natural resources.<sup>28</sup> Such a quagmire leads those doubters in the West to assume China’s stated position of co-operation and harmony within the global hierarchy is simply a temporary by-product of its immature military capabilities.

Conversely, Zheng Bijian, who was the executive vice chairman of the Central Party School in Beijing and considered to be preeminently influential among Chinese strategic leadership, has reiterated the message that “China should build on its “convergence of interests” with other countries and devote its effort to building

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<sup>25</sup>*Ibid.*, 369.

<sup>26</sup>Aaron L. Friedberg, ““Going Out”: China’s Pursuit of Natural Resources and Implications for the PRC’s Grand Strategy,” *NBR Analysis* 17, no. 3 (September 2006, 2006): 6.

<sup>27</sup>*Ibid.*

<sup>28</sup>*Ibid.*, 7.

“communities of interests” in various fields and among various levels.”<sup>29</sup> This level of co-operation is encouraging to hear from influential Chinese personnel, however, as David Scott discusses, the question concerning most observers alarmed by China’s Arctic interests is whether or not China will remain on the path of peaceful development *after* it becomes the world’s strongest power.<sup>30</sup>

Current literature is in relative agreement that China is an emerging global power with strong interest in the Arctic. One source of debate among scholars and authors concerns China’s ultimate ambition and the manner in which they will secure it. Thus, China presents a challenge to the international community. Given Canada’s vast Arctic landmass and maritime border, it should play a leadership role in Arctic affairs, and should develop a direct relationship with China on Arctic concerns and opportunities.

David Curtis Wright observes that China has begun to set their attention on Canada because of the wealth of natural resources in the Canadian Arctic Archipelago and the potential of the Northwest Passage:

China knows that Canadian control over these resources makes Canada a major international player, a country with natural resource wealth and geostrategic advantage befitting its sheer geographical size, but out of proportion with its relatively small population...While it seems unlikely that China has any ambitions of becoming an armed belligerent in a future war over the Arctic, or of making serious territorial claims in the region, it can be expected that China will become more assertive and opinionated in its commentary on Arctic affairs...Even so, the Chinese government itself does not seem ready to affirm Canadian Arctic sovereignty. Canada needs to be on its guard against Chinese attempts to water down Canada’s Arctic

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<sup>29</sup>Zheng Bijian, "China's Strategy: From 'Peaceful Rise' to a 'Convergence of Interests'," Global Viewpoint Network/Nicolas Berggruen Institute, last modified 10 October 2010, [http://www.digitalnpq.org/articles/global/559/10-10-2011/zheng\\_bijian](http://www.digitalnpq.org/articles/global/559/10-10-2011/zheng_bijian).

<sup>30</sup>David Scott, *'The Chinese Century?': The Challenge to Global Order* (New York: Palgrave MacMillan, 2008), 19.

sovereignty and should strengthen cooperation with democratic Arctic states for the security and stability of the region.<sup>31</sup>

It is with this perspective in mind that Rob Huebert advocates that Canada must enforce sovereignty and security in Canada's Arctic. According to Huebert, Canada must invest in capabilities that enable surveillance and response while concurrently developing partnerships with its Arctic neighbours. Huebert recognizes that environmental change is bringing Arctic accessibility, which will attract new nations and activities to the North, therefore, a proactive Canadian response is needed.<sup>32</sup>

While cooperation is a common theme for Canadian action in the Arctic, other literature also recommends direct liaison with China. Frank Lasserre writes that China's Arctic interests are obvious, and commensurate with its desire to establish itself as a 21<sup>st</sup> century power; this fact provides an opportunity for Canadian policy.<sup>33</sup>

[W]orking on building common ground with China and taking its concerns and interests into account could prove profitable inasmuch as China could, in turn, consider Canada's specific interests in the Arctic... The option of engaging China within the Arctic Council could be a real opportunity to advance Canadian interests in the area, as our interests overlap in areas of research, environmental regulation of maritime shipping, interpretation of maritime treaties, and the need to cooperate and engage in multilateral mechanisms to reach an international compromise on these issues.<sup>34</sup>

Finally, existing literature takes the notion of Arctic cooperation well beyond the Arctic states and interested Asian nations. Franklyn Griffiths conveys a need to engage

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<sup>31</sup>David Curtis Wright, *The Panda Bear Readies to Meet the Polar Bear: China and Canada's Arctic Sovereignty Challenge* (Calgary: Canadian Defence & Foreign Affairs Institute, 2011), 1-2.

<sup>32</sup>Rob Huebert, *Canadian Arctic Sovereignty and Security in a Transforming Circumpolar World* (Toronto: Canadian International Council, 2009), 35.

<sup>33</sup>Frédéric Lasserre, *China and the Arctic: Threat Or Cooperation Potential for Canada?* (Toronto: Canadian International Council, 2010), 3.

<sup>34</sup>*Ibid.*, 11.

the entire world on the strategic reality of Arctic policies. Significant Arctic changes have resulted from human industrial activity, but there is actually very little human activity in the Arctic. Arctic environmental changes and Arctic pollution are originating from outside the region:

When it comes to climate and weather...the region is increasingly dependent on processes and events in the world outside...Greenhouse gas emissions originating in the Arctic itself account for but little of the ice and snow-cover reduction of recent decades. The same applies to cycles of boom and bust in Arctic oil and gas development, to unsettling short-term variations in global energy demand and prices, and to the vagaries of the global business cycle such as we [experienced] in 2009.<sup>35</sup>

Quite simply, very few of the Arctic changes are due to activity originating from within the Arctic Circle, and changes in the Arctic environment have a reciprocal and profound impact on the rest of the world. Griffiths uses examples to illustrate that Canada should lead the Arctic Council in conforming regional agendas into a global context. By encompassing participation from the entire world and making Arctic issues globally relevant, the physical symbiotic relationship between the Arctic and the rest of the world can translate to the economic and political stages as well.<sup>36</sup>

All literature agrees China's recent investments in Arctic affairs are related to the economic and geopolitical potential of the region, and China's strategy to build its stature in global affairs. The Arctic is not necessarily a priority for Chinese statecraft, however, it is one important piece of a larger global strategy. Literature also identifies this juncture as Canada's time to seize the opportunity to develop its Arctic territories. New actors in

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<sup>35</sup>Franklyn Griffiths, *Towards a Canadian Arctic Strategy* (Toronto: Canadian International Council, 2009), 7.

<sup>36</sup>*Ibid.*, 8.

Arctic affairs present development opportunities for Canada while concurrently being a signal that Canada must demonstrate strong resolve and responsive action regarding sovereignty and security in order to enforce its maritime regulations and protect its internal waterways. Leadership from the Government of Canada in areas of northern development and international cooperation is key to securing a prosperous future for Canada's Arctic region and its prospective international partnerships.

### CHAPTER 3: THE ARCTIC AS A STRATEGIC ISSUE

The Arctic is one of the Earth's unique regions where environmental consequences from other places around the world have an amplified effect. Similarly, changes within the Arctic environment resonate globally. Not limited to an environmental impact, climate change in the Arctic creates new strategic considerations for Arctic states and non-Arctic nations alike. Receding ice opens the Arctic to resource exploitation and increased maritime traffic while simultaneously creating a new geopolitical gravity around the Arctic and northern issues. As the Arctic environment continues to evolve, it will spawn opportunity for those nations that have the capacity, technology, and resolve to capitalize upon it.

#### **Strategic Consequences of Climate Change**

From a scientific perspective, the Arctic Ocean acts as a global heat sink. The Earth is primarily warmed by incident solar radiation at lower latitudes. The resultant heat is transported north via ocean currents and exchanging air masses.<sup>37</sup> The Earth is cooled at the North Pole when thermal energy is lost through the atmosphere back into space.<sup>38</sup> Greenhouse gases and carbon emissions originating from locations other than the Arctic conspire to increase the amount of heat flow into the Arctic, and trap heat in the atmosphere.

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<sup>37</sup>"The Arctic as a "Heat Sink"", National Snow and Ice Data Center, last accessed 11 February 2013, [http://nsidc.org/arcticmet/patterns/heat\\_sink.html](http://nsidc.org/arcticmet/patterns/heat_sink.html).

<sup>38</sup>*Ibid.*

A calm ocean *absorbs* 93 percent of the sunlight that falls upon it whereas terrain covered with snow and ice will *reflect* more than 90 percent of the solar energy.<sup>39</sup> Thus, as more of the Arctic ice melts, more water is exposed and more radiation is absorbed at the northern pole. Rather than reflecting solar radiation back into space, the Arctic is sucking in more heat energy directly from the sun. Due to increased thermal inflow and higher solar absorption rates, scientific data indicates that the temperatures in the Arctic are rising two times faster than anywhere else on Earth.<sup>40</sup>

As the Arctic accepts more thermal heat and simultaneously captures more solar radiation, it is releasing methane gas from the tundra's melting permafrost.<sup>41</sup> The release of methane contributes greatly to the greenhouse gas crisis. Compared to carbon dioxide, methane traps 20 times more heat in the atmosphere over the same 100-year period.<sup>42</sup> As a consequence of global warming, Arctic changes are deepening the warming cycle. In the last century, mankind's activities have interfered with the Earth's cooling process to the point where the overall efficiency of the natural heat transfer process is impaired.

Furthermore, industrial pollutants, which also migrate north, are finding their way into the food chain. Such contamination injures the health of northern residents that rely

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<sup>39</sup>David Kramer, "Scientists Alarmed by Rapidly Shrinking Arctic Ice Cap " *Physics Today* 66, no. 2 (2013): 17, [http://www.physicstoday.org/resource/1/phtoad/v66/i2/p17\\_s1](http://www.physicstoday.org/resource/1/phtoad/v66/i2/p17_s1).

<sup>40</sup>Von Hlatky, *Arctic Meltdown: A Changing World*.

<sup>41</sup>Sam Eaton, "An Arctic Climate Catastrophe?" PRI's The World, last accessed 9 April 2013, <http://www.theworld.org/2012/11/methane-arctic-climate/>.

<sup>42</sup>"Methane Emissions," United States Environmental Protection Agency, last accessed 9 April 2013, <http://epa.gov/climatechange/ghgemissions/gases/ch4.html>.



on the local ecosystem as their primary source of sustenance.<sup>43</sup> The rest of the world's activities are clearly having a transformational effect on the Arctic environment.

The environmental effects of the melting Arctic have drawn interest from many nations that do not have a border with the Arctic Circle. Global warming has been linked with intensified weather disruptions leading to drought and flooding, extreme weather storms, and worsening respiratory allergies.<sup>44</sup> Clearly, distance does not insulate the Arctic from the effects of climate change nor is the rest of the Earth independent from Arctic change. Climate change is a global concern with strategic repercussions.

### **Strategic Consequences of Natural Resources**

The Arctic is one of the last great frontiers for natural resource development, but it is set in an environment that is also fragile, slow to recover, and globally relevant. Not only does the burning of Arctic-sourced hydrocarbons impact the environment, but the increased risks of oil spills and unsightly mining operations will turn the Great White North into a scavenged landscape.

The Arctic is estimated to hold anywhere from 13 to 30 percent of the world's undiscovered hydrocarbons.<sup>45</sup> Additionally, the Arctic is expected to yield untold riches in minerals and gemstones. Canada and Russia both run large mining operations where many minerals and metals are harvested. In Canada's North, coal, diamonds, gold, iron

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<sup>43</sup>Terry Fenge and Tony Penikett, "The Arctic Vacuum in Canada's Foreign Policy," *Policy Options* (April 2009), 65.

<sup>44</sup>"Global Warming is Affecting Weather," National Wildlife Federation, last accessed 15 April 2013, <http://www.nwf.org/Wildlife/Threats-to-Wildlife/Global-Warming/Global-Warming-is-Causing-Extreme-Weather.aspx>.

<sup>45</sup>Robertson, "USGS Release: 90 Billion Barrels of Oil and 1,670 Trillion Cubic Feet of Natural Gas Assessed in the Arctic."

ore, lead-zinc, nickel, quartz, and rare earth minerals have been mined in the past or are planned for recovery in the near future. In Russia, alumina, apatite, ceramic, coal, cobalt, copper, diamonds, gold, gypsum, iron, mica, molybdenum, nickel, palladium, platinum, precious stones, rare earths, silver, tin, titanium, and zinc are also mined or have been mined in the past.<sup>46</sup> Such abundant resources can give nations a dominant position in resource markets. For example, Russia and Canada have become the second- and third-largest diamond producers in the world, respectively.<sup>47</sup> Until the Norilsk Nickel plant on Russia's Kola Peninsula was shut down in 2007, it produced 12, 18.8, and 46.3 percent of the world's platinum, nickel, and palladium, respectively.<sup>48</sup> The Mary River iron ore development on Canada's Baffin Island contains approximately 900 million tonnes of high-quality ore,<sup>49</sup> and the high-quality rare earths deposit at Thor Lake, Northwest Territories is world-class.<sup>50</sup> These examples represent the types of prodigious and valuable resources available in the Arctic.

The Canadian and Russian experiences serve as an example of the great potential that lies under Greenland as its massive ice sheet, which covers 80 percent of its territory, recedes in the warming Arctic environment. It is estimated that Greenland's Kvanefjeld deposit holds 20 percent of the global rare earth supply, making it the second-largest

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<sup>46</sup>Noreen Parks, "Other Minerals," RIA Novosti, last accessed 4 March 2013, <http://arctic.ru/natural-resources/other-minerals>.

<sup>47</sup>*Ibid.*

<sup>48</sup>G. P. Glasby and Yu L. Voytekhovskiy, "Arctic Russia: Minerals and Mineral Resources," The Geochemical Society, last accessed 4 March 2013, <http://www.geochemsoc.org/publications/geochemicalnews/gn140jul09/arcticrussiamineralsandmin/>.

<sup>49</sup>Greg Missal, "Mary River Iron Ore Deposits: The Path to Development," Baffinland Iron Mines Corporation, April 13, 2010.

<sup>50</sup>"Avalon Rare Metals - Thor Lake Introduction," Avalon Rare Metals Inc., last accessed 4 March 2013, [http://avalonraremetals.com/projects/thor\\_lake/thor\\_lake\\_intro/](http://avalonraremetals.com/projects/thor_lake/thor_lake_intro/).

deposit of rare earths in the world.<sup>51</sup> The same Kvanefjeld deposit could also supply significant amounts of uranium by 2016.<sup>52</sup> Furthermore, energy consultant Wood Mackenzie, believes Greenland's reserves could total 20 billion barrels of oil (as much as half of the entire North Sea).<sup>53</sup> Despite the optimism about Greenland's new valuable resources, it is worthy to note that there is only one active gold mine in Greenland, and that \$1.2 billion in drilling expeditions through 2010 and 2011 did not find any new oil fields.<sup>54</sup>

Undeterred by the lack of existing infrastructure and a small population, Ove Karl Berthelsen, Greenland's minister of Industry and Mineral Resources has stated that mining will feature prominently in Greenland's future in an effort to bolster an economy that currently relies mostly on fishing, hunting, and an annual grant from Denmark.<sup>55</sup> "Our goal is to change Greenland into a land of mining resources," Berthelsen said at the China International Mining Conference in November, 2012.<sup>56</sup>

Arctic natural resources are not limited to ore and gems. Commercialized fishing of Arctic stocks is also an activity with increased potential. The Arctic is rife with turbot, shrimp and Arctic char, and experimental fisheries for shellfish, starry flounder, and

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<sup>51</sup>Isabella Mroczkowski, "China's Arctic Powerplay," The Diplomat, last modified 15 February 2012, <http://thediplomat.com/flashpoints-blog/2012/02/15/chinas-arctic-powerplay/>.

<sup>52</sup>Andrew Erickson and Gabe Collins, "China's New Strategic Target: Arctic Minerals," The Wall Street Journal, last modified 18 January 2012, <http://blogs.wsj.com/chinarealtime/2012/01/18/china's-new-strategic-target-arctic-minerals/>.

<sup>53</sup>Alistair Scrutton, "Insight: Great Expectations Fill Greenland as China Eyes Riches," Thomson Reuters, last accessed 4 March 2013, <http://www.reuters.com/article/2012/11/05/us-greenland-idUSBRE8A40MR20121105>.

<sup>54</sup>*Ibid.*

<sup>55</sup>Pu Jun, "Greenland Lures China's Miners with Cold Gold," Caixin Media Company Ltd., last modified 7 December 2011, <http://english.caixin.com/2011-12-07/100335609.html>.

<sup>56</sup>*Ibid.*

scallops have also been conducted.<sup>57</sup> The world is always searching for new food supplies, and the interest from countries such as China, who already imports \$4 million per year from Nunavut's largest fish processing plant,<sup>58</sup> represents an emerging industry that will require shrewd management. The fishery is a national strategic asset that requires cautious husbandry, and one that will always have a market in our growing world.

Natural resources hold strategic prominence among non-Arctic states that wish to invest and profit from them. These natural resources also represent a fantastic opportunity for smaller Arctic communities and states to acquire advanced skillsets, and generate significant income for social and economic development of their citizens and communities. The strategic relevance of the Arctic's natural resources is an important consideration.

### **Strategic Consequences of Arctic Shipping**

In 2012, Arctic sea ice coverage receded to new record low representing 17 and 36 percent reductions over previous record lows in 2007 and 2005, respectively. As the ice recedes to new minimums, shipping in the Arctic region becomes a more commercially viable option. Commercial shipping in the Arctic has major implications for Arctic littoral states and those states that are using the ocean for transport. The main Arctic shipping routes are Russia's Northern Sea Route (also known as the Northeast

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<sup>57</sup>Peter Christie, "Climate Change Opens Up Arctic Fisheries – but should Canada Cut Bait?" The Globe and Mail Inc., last modified 28 July 2012, <http://www.theglobeandmail.com/news/national/climate-change-opens-up-arctic-fisheries-but-should-canada-cut-bait/article4431852/?page=all>.

<sup>58</sup>*Ibid.*

Passage) and the Arctic Bridge Route (ABR). The Northwest Passage and the Transpolar Route are two additional routes that are gaining scrutiny as the Arctic ice continues to retreat. Each of the routes are depicted in Figure 3.1.

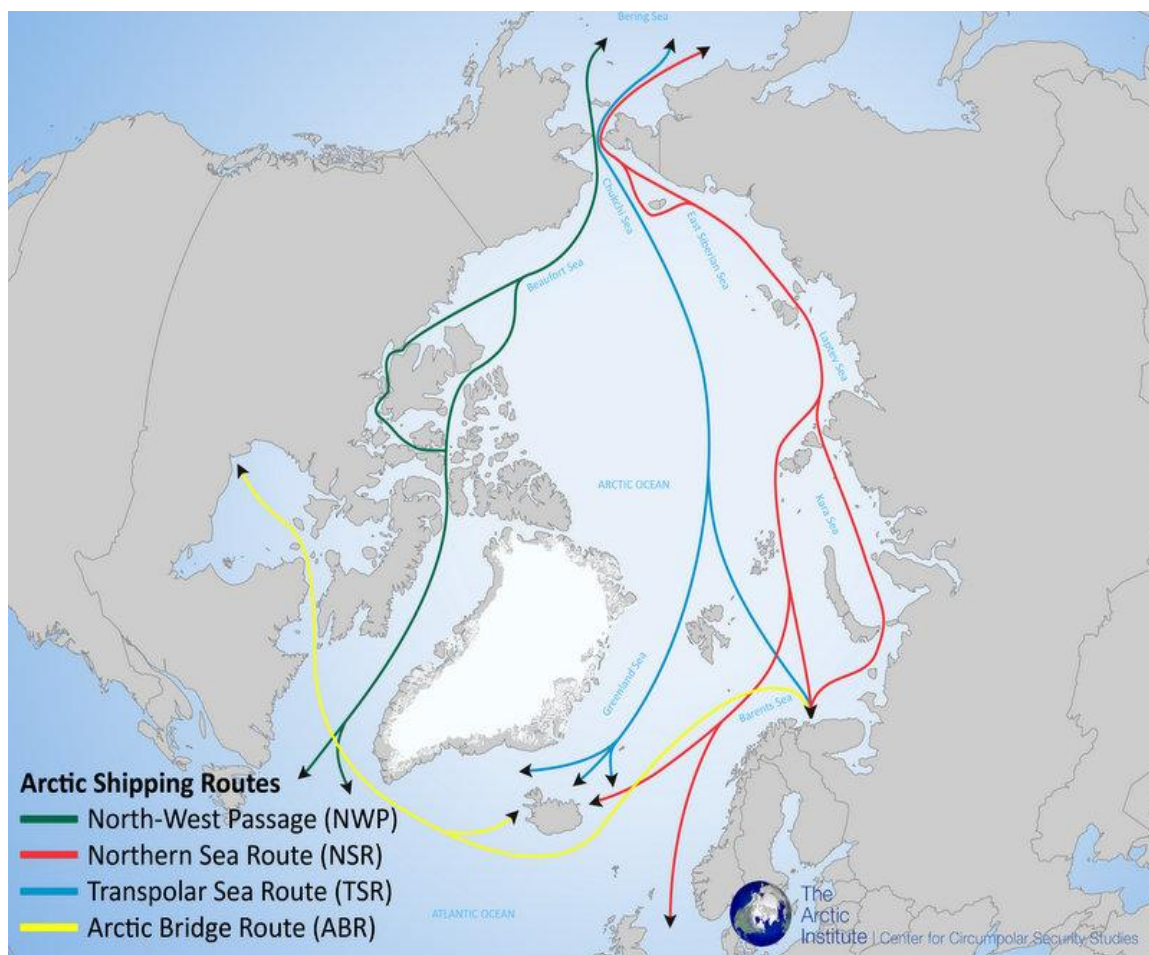


Figure 3.1 - Arctic shipping routes

Source: The Arctic Institute,

<http://www.thearcticinstitute.org/2012/10/the-future-of-arctic-shipping.html>

The ABR is a commercial endeavour focused on providing Russian products from Murmansk convenient access to the North American railroad through Churchill, MB. Although it does not service the east-west routes, tonnage shipped from Russia and Eurasia into North America demonstrates how the Arctic Ocean can support innovative

shipping traffic routes. Conversely, the Northern Sea Route (NSR) has quickly become the Arctic shipping route of the present. There is already significant commercial shipping activity along the NSR. The NSR snakes along the Russian coast, and is becoming increasingly popular in recent years. In 2011, 33 vessels sailed the NSR,<sup>59</sup> whereas 46 sailed in 2012 and 60 are expected to make the trek in 2013.<sup>60</sup> The vessels that travelled the NSR in 2011 transported 820,000 tonnes of cargo, while Russian officials forecasted 1.5 million tonnes would flow through in 2012; by 2020, American estimates say the number will rise to 64 million tonnes.<sup>61</sup>

The Northwest Passage is also receiving attention from the international community lately. Connecting the Bering Sea and Atlantic Ocean, the Northwest Passage winds through the Canadian Arctic Archipelago, and though it is notoriously blocked with sea ice during most of the year, as the Arctic melts, its viability grows. Even in recent years when ice thickness and sea ice coverage have dipped to record lows, the Northwest Passage continued to experience isolated ice floes that can impede transit through the M'Clure Strait. These conditions often necessitate a route through the shallower Prince of Wales Strait.<sup>62</sup> Illustrating the growing interest in Northwest Passage transit, five vessels sailed through the Northwest Passage in 2001 whereas 26 vessels

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<sup>59</sup>Malte Humpert and Andreas Raspotnik, "The Future of Arctic Shipping," The Arctic Institute Center for Circumpolar Security Studies, last modified 11 October 2012, <http://www.thearcticinstitute.org/2012/10/the-future-of-arctic-shipping.html>.

<sup>60</sup>Tim Radford, "Fast Boat to China?" The Climate News Network, last modified 4 March 2013, <http://www.climateandnewsnetwork.net/2013/03/fast-boat-to-china>; Nathan Vanderklippe, "Study Predicts Arctic Shipping Quickly Becoming a Reality," The Globe and Mail Inc., last modified 4 March 2013, <http://www.theglobeandmail.com/report-on-business/international-business/study-predicts-arctic-shipping-quickly-becoming-a-reality/article9264672/>.

<sup>61</sup>"Short and Sharp," The Economist Newspaper Limited, last modified 16 June 2012, <http://www.economist.com/node/21556803>.

<sup>62</sup>"Sailors to Attempt New Northwest Passage Route," CBC, last modified 14 August 2012, <http://www.cbc.ca/news/offbeat/story/2012/08/13/north-northwest-passage-sail.html>.

transited the waterway in 2011.<sup>63</sup> The odds that more vessels are coming are delineated in UCLA's recent research:

In the past 25 years, ships had only a 15-per-cent chance of making an open-water [Northwest Passage] transit. That has risen to 17 to 27 per cent in the current decade, and will soar to 53 to 60 per cent by mid-century, depending on the forecast of climate change. That's enough that ships will be able to "commonly capitalize" on the distance savings of sailing through Canada's Arctic, the research finds.<sup>64</sup>

In August 2012, China attempted to sail directly from Iceland to the Bering Sea via the North Pole along a Transpolar Route. Although the M/V Xue Long only got as far north as 87°39'N, 123°11'E due to severe ice conditions, it came within approximately 261 kilometers of the North Pole, which is a remarkable achievement considering the historical span of the ice cap. The Xue Long served as a strong capability demonstration for China's research vessel, and a statement on the future possibilities of Arctic shipping.<sup>65</sup>

An obvious motive for using trans-Arctic shipping routes is the shorter distance between Asia, Europe and the northeastern U.S. A sail from Japan to Europe via the Cape of Good Hope or the Suez Canal can take 29 or 22 days, respectively, whereas it only takes 10 days via the Arctic.<sup>66</sup> Between Yokohama, Japan and Rotterdam, Netherlands, the sailing distance is approximately 11,000 kilometers *shorter* along the NSR than the

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<sup>63</sup>Nathan Vanderklippe, "Study Predicts Arctic Shipping Quickly Becoming a Reality."

<sup>64</sup>*Ibid.*

<sup>65</sup>"Xuelong Arrives in Shanghai," Arctic Portal, last accessed 5 March 2013, <http://chinare5.com/news>.

<sup>66</sup>Badari Narayana Srinath, "Arctic Shipping: Commercial Viability of Arctic Sea Routes" (MSc., City University of London), 24.

route through the Suez Canal.<sup>67</sup> The NSR is already a relatively active route complete with Russian icebreaker escorts, enroute ports, support infrastructure, and better ice conditions. Obviously, the advantages of Arctic shipping wane as ports of origin and destination move further south, however, among a selection of common shipping routes, Arctic routes are typically shorter, require less fuel, and emit fewer greenhouse gases yielding attractive commercial benefits. Although the harsh environment can negatively affect insurance rates, stable regional politics and reduced piracy risks can offset costs.

The savings associated with increased Arctic maritime traffic is a strategic matter that affects international shipping conglomerates and Arctic coast states alike. Striking balance between competing requirements for safety and efficiency will feature prominently among future working groups and regulating bodies.

### **The Geopolitics of Arctic Governance**

Environmental changes in the Arctic are creating economic potential, and as a result, the geopolitics of the region are shaping discussions in the international community. One setting for those discussions is the Arctic Council, which was established to provide a forum for "...cooperation, coordination and interaction among the Arctic States, with the involvement of the Arctic Indigenous communities and other Arctic inhabitants on common Arctic issues."<sup>68</sup> The Arctic Council is a means to communicate and promote Arctic interests on matters of an environmental, social, and

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<sup>67</sup>Malte Humpert, "The Future of the Northern Sea Route - A "Golden Waterway" Or a Niche Trade Route," The Arctic Institute Center for Circumpolar Security Studies, last modified 15 September 2011, [http://www.thearcticinstitute.org/2011/10/future-of-northern-sea-route-golden\\_13.html](http://www.thearcticinstitute.org/2011/10/future-of-northern-sea-route-golden_13.html).

<sup>68</sup>Arctic Council, *About Us*.



economic nature by co-ordinating working groups, task forces, and ministerial meetings.<sup>69</sup> As the council matures, its efforts have received more focus from the world's influential powers as they manoeuvre to participate in the governance of the Arctic. Greenland's Prime Minister Kuupik Kleist has summarized the Arctic's geopolitical evolution: "[The Arctic] is not just a region of ice and polar bears. Developing countries are interested in a more political role in opening up of the Arctic."<sup>70</sup>

## Summary

The Arctic has an impact on the world, and the world's activities modify the Arctic. Increased human activity in the North threatens a fragile Arctic ecosystem. The competition for natural resources, maritime trade, and climate change shape our physical and philosophical worlds. With global powers such as the U.S. and Russia occupying coastal territory in the Arctic, and non-Arctic states, including China and several other European and Asian nations, looking for ways to influence Arctic affairs, the strategic importance of the North is unprecedented.

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<sup>69</sup>Department of Foreign Affairs and International Trade, "Arctic Council " last modified 26 October 2012, <http://www.international.gc.ca/polar-polaire/council-conseil.aspx?view=d>.

<sup>70</sup>Scrutton, *Insight: Great Expectations Fill Greenland as China Eyes Riches*.

## CHAPTER 4: CHINA AND ITS ARCTIC ASPIRATIONS

For most of the last 2,000 years, China was the world's biggest and most advanced economy.<sup>71</sup> After a crippling downturn in the late 19<sup>th</sup> and 20<sup>th</sup> centuries, China began to rebound by implementing extensive economic reforms in a bold attempt to ignite the country's expansive economic potential. In 1978, China's ruling party initiated limited reforms to transition some aspects of its economic system from a command economy to a market-driven economy in an effort to "improve the well-being of the Chinese people".<sup>72</sup> The Chinese government retained direction over the economy, but lessened restrictions to encourage private innovation in the farming economy.<sup>73</sup> China also changed its rules to encourage direct foreign investment and international trade and they relinquished state control over some previously-fixed prices.<sup>74</sup> Positive results from the limited scope of changes in the agricultural economy encouraged China to apply similar principles to its industrial capacity in urban centers.<sup>75</sup>

By 2010, the application of these initiatives and a focus on worker skills had helped China's economy become 90 times larger than it was in 1978, and yet despite this impressive fact, China's statistics bureau still characterized China as a country with a large population, soft economic fundamentals, limited domestic resources and high rates

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<sup>71</sup>Carl Johan Dahlman and Jean-Eric Aubert, *China and the Knowledge Economy: Seizing the 21st Century* (Washington, D.C.: World Bank, 2001), 170.

<sup>72</sup>Clem Tisdell, "Economic Reform and Openness in China: China's Development Policies in the Last 30 Years," *Economic Analysis & Policy* 39, no. 2 (September 2009): 289.

<sup>73</sup>Murtaza Syed and James P. Walsh, "The Tiger and the Dragon," *Finance & Development* 49, no. 3 (September 2012), 37.

<sup>74</sup>Zuliu Hu and Mohsin S. Khan, *Why is China Growing so Fast?* (Washington, D.C.: International Monetary Fund, 1997), 1.

<sup>75</sup>Loren Brandt and Thomas G. Rawski, "China's Great Economic Transformation," *China Business Review* 35, no. 6 (Nov 2008): 31.

of poverty.<sup>76</sup> Regardless, the results of China's economic reform have been stunning, and China now finds itself in an enviable economic position. Despite its stated weakness in certain economic benchmarks, China's economy has become a globally dominant force, and such statistics simply illustrate how much potential is left in its growth cycle.

In Q2 2010, China eked past Japan to become the world's second-largest economy.<sup>77</sup> China has amassed a large foreign currency reserve equal to US\$3.2 trillion dollars, and it has evolved into a major trading partner for both the U.S., which is the world's largest economy, and the European Union, which represents the largest economic grouping.<sup>78</sup> China's vast cash reserves mean China can finance many natural resource developments in diverse locales around the world, including Africa, South America, the Western countries, and the Nordic regions. Between 2005 and 2011 China invested over US\$400 billion in 350 initiatives around the world.<sup>79</sup> Not limited solely to resource plays, the China Development Bank has extended lines of credit to various Latin American and Caribbean countries totaling US\$15 billion with an aim of building infrastructure and increasing bilateral trade.<sup>80</sup>

China's investment of national cash reserves is not limited to developing nations either. According to the U.S. Department of the Treasury's website, China alone holds

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<sup>76</sup>Kevin Hamlin and Yanping Li, "China Overtakes Japan as World's Second-Biggest Economy," Bloomberg News, last modified 16 August 2010, <http://www.bloomberg.com/news/2010-08-16/china-economy-passes-japan-s-in-second-quarter-capping-three-decade-rise.html>.

<sup>77</sup>*Ibid.*

<sup>78</sup>Bijian, *China's Strategy: From 'Peaceful Rise' to a 'Convergence of Interests'*.

<sup>79</sup>Dambisa Moyo, *Winner Take all: Winner Take all China's Race for Resources and what it Means for the World* (New York: Penguin Group, 2012), 25.

<sup>80</sup>"China Offers Latin American Countries US\$10 Billion Line of Credit," China Briefing, last modified 27 June 2012, <http://www.china-briefing.com/news/2012/06/27/china-offers-latin-american-countries-us10-billion-line-of-credit.html>.

US\$1.2021 trillion in U.S. Treasury bills.<sup>81</sup> Although the U.S. remains the largest global economy, economists with the Organisation for Economic Co-operation and Development (OECD) expect China's Gross Domestic Product (GDP) to overtake that of the U.S. by 2016.<sup>82</sup> In just over three decades, China has been transformed into an unquestionable economic powerhouse with fiscal policies and capital ventures that extend all around the world.

It is important to appreciate the magnitude of China's economic strength when considering China's Arctic ambitions because a large portion of China's interest in the Arctic stems from the economic benefits they can derive from Arctic activity. That being said, one cannot ignore China's desire for geopolitical gain and international influence. The People's Republic of China (PRC) is one of the five permanent United Nations (UN) Security Council members and they are a nuclear nation. They are the world's most populous nation,<sup>83</sup> and according to GlobalFirepower.com, China has the third-strongest military in the world.<sup>84</sup>

For almost 60 years, China has espoused the tenets of the Five Principles of Peaceful Coexistence. These tenets were incorporated into China's Constitution and have guided China's foreign policy since 1954.<sup>85</sup> The five principles are "...mutual respect for sovereignty and territorial integrity; mutual non-aggression; non-interference in each

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<sup>81</sup>"Major Foreign Holders of Treasury Securities," Department of the Treasury, last modified 15 February 2013, <http://www.treasury.gov/resource-center/data-chart-center/tic/Documents/mfh.txt>.

<sup>82</sup>Åsa Johansson et al., *Looking to 2060: Long-Term Global Growth Prospects*, Organisation for Economic Co-operation and Development, 2012, 22.

<sup>83</sup>"Asia: The most Surprising Demographic Crisis; China's Population," *The Economist* (May 07, 2011): 43, <http://search.proquest.com/docview/865214091?accountid=9867>.

<sup>84</sup>Staff Writer, "Global Firepower Military Ranks - 2013," GlobalFirepower.com, last modified January 2013, <http://www.globalfirepower.com/countries-listing.asp>.

<sup>85</sup>Jiang Zhuqing, "Five Principles' Still Shaping Global Peace," *Chinadaily.com.cn*, last modified 29 June 2004, [http://www.chinadaily.com.cn/english/doc/2004-06/29/content\\_343578.htm](http://www.chinadaily.com.cn/english/doc/2004-06/29/content_343578.htm).

other's internal affairs; equality and mutual benefit; and peaceful coexistence.”<sup>86</sup>

Reinforcing this dogma is a pragmatic and patient Chinese philosophy that has also been noted in China since the end of the Cold War. As discussed by Maria Dolores Cabras, China has frequently exercised a philosophy of “*tao guang yang hui, you suo zuo wei*, ‘keep a low profile and never take the lead’.”<sup>87</sup>

In addition to these ideologies, China’s *peaceful rise* philosophy encourages a non-confrontational approach to world affairs. The peaceful rise theory guides China to act as a responsible world leader, it emphasizes soft power (versus hard power), and attempts to improve the welfare of its own people rather than engaging in unnecessary conflict.<sup>88</sup> According to China’s own strategic documentation about its current development and modernization endeavor, “China is now taking the road of peaceful development, and will continue to do so when it gets stronger in the future.”<sup>89</sup> Furthermore, the Chinese government has stated that their resolve to remain on this path is “unshakeable”.<sup>90</sup>

This chapter will demonstrate that China has a definitive, but unpublished Arctic strategy that is focused on tangible strategic, political, and economic objectives. As it would be for any global power, the Arctic is just one of many areas or regions of interest to China, but it is a growing interest nevertheless. From an economic perspective, China

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<sup>86</sup>*Ibid.*

<sup>87</sup>Maria Dolores Cabras, "China's Peaceful Rise and the Good Neighbor Policy " The European Strategist, last modified 12 October 2011, <http://www.europeanstrategist.eu/2011/12/china's-peaceful-rise-and-the-good-neighbor-policy/>.

<sup>88</sup>Eko Armunanto, "Will China's Peaceful Rise be Really Peaceful?" Digital Journal, last modified 22 February 2013, <http://www.digitaljournal.com/article/344072>.

<sup>89</sup>"Full Text: China's Peaceful Development Road," People's Daily Online, last modified 22 December 2005, [http://english.peopledaily.com.cn/200512/22/eng20051222\\_230059.html](http://english.peopledaily.com.cn/200512/22/eng20051222_230059.html).

<sup>90</sup>*Ibid.*

is clearly one of the most influential nations in the world, and the Arctic presents new opportunities to expand its wealth. Consistent with a desire to profit from the Arctic and shape important world affairs, China has made significant efforts to join the Arctic Council as a permanent observer and to influence the manner in which Arctic affairs are handled. China's status as a growing global power, the strategic potential of transoceanic shipping through the Arctic Ocean, the Arctic's valuable natural resources, and the still unfolding effects of Arctic climate change on the global environment make the Arctic an area of keen interest for China.

### **China's Arctic Strategy**

Since China has invested so heavily in Arctic research, capital equipment, foreign resource development, and establishing diplomatic ties, it may seem odd that they have not devised a formal policy for the northern polar region.<sup>91</sup> Nevertheless, while attending an Arctic forum in Svalbard, Norway in June 2009, China's assistant minister of foreign affairs, Hu Zhengyue, was clear to affirm, "China does not have an Arctic strategy."<sup>92</sup>

Even if China has not yet published a long-term vision identifying the objectives of its Arctic endeavours, it is reasonable to postulate they at least have an idea of what they would like to achieve in the North. Although the Chinese assistant minister of foreign affair may be correct to say China does not have formal Arctic policy, it would be naïve to believe China doesn't have a defined plan driving its Arctic expenditures.

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<sup>91</sup>"Northern Chill: China is Posturing for a Greater Share of Arctic Wealth, but its Reception at the Top of the World has been Mixed," *China Economic Review* 24, no. 1, (January 2013): 41, <http://content.yudu.com/Library/A201wu/CER1301/resources/41.htm>.

<sup>92</sup>Linda Jakobson, *China Prepares for an Ice-Free Arctic* (Solna, Sweden: Stockholm International Peace Research Institute, 2010), 9.

According to Linda Jakobson, China's Arctic policies are "nascent" at best, and China is not expected to produce an Arctic strategy in the near- or medium-term.<sup>93</sup> Regardless, China's efforts to strengthen diplomatic ties with Arctic countries and its strategic statements in their most recent 12<sup>th</sup> Five Year Plan (2011-2015) should serve as a notice to the world that China does indeed have working plans for the Arctic. China's resource investments, heightened Arctic diplomatic activity, and a consistent research presence in the Arctic have also made the rest of the world take notice.<sup>94</sup>

In the absence of an official Chinese government Arctic policy, various academics and government officials have expressed personal opinions about China's role in the world, which can provide insight to potential Chinese roles in the Arctic. In a speech on the eve of the 2011 G-20 summit, Zheng Bijian, a former executive vice chairman of the Central Party School remarked how China's 12<sup>th</sup> Five Year Plan (2011-2015) uses the concept of expanding converging interests, and suggested this recurring theme is not a coincidence, but an example of the importance the Chinese Communist Party (CCP) has placed on global co-operation:

Other areas of converging interest include security in cyberspace, outer space and maritime zones. These are areas that have a bearing on the security of mankind as a whole. They should be considered "common spaces," or, in more economic jargon, "global public goods." It is necessary to establish common rules and ways of operation in all these areas through consensus.<sup>95</sup>

Although not directly referenced in Zheng's speech, the Arctic has certainly become a prominent maritime zone for Chinese officials, and it would be reasonable to conclude

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<sup>93</sup>Jakobson and Jingchao Peng, *China's Arctic Aspirations*, v-1.

<sup>94</sup>Aldo Chircop, "The Emergence of China as a Polar-Capable State," *Canadian Naval Review* 7, no. 1 (Spring 2011): 13.

<sup>95</sup>Bijian, *China's Strategy: From 'Peaceful Rise' to a 'Convergence of Interests'*.

that the Arctic is among those areas of interest where Zheng thinks common ground can be attained. The concept of bridging ideas between nations and working on common interests was also iterated by China's President, Hu Jintao, in an interview with the Wall Street Journal and Washington Post in January, 2011 when he stated the U.S. and China should expand converging interests.<sup>96</sup> However, the references to China's peaceful rise in Zheng's speech and Jintao's interview stand in stark comparison to opinion offered by other published Chinese academics and military personnel.

Guo Peiqing, an Associate Professor of Polar Politics and Law at Qingdao's Ocean University of China, has estimated that 88 percent of the Arctic floor could wind up under the control of Canada, Russia, the U.S., Denmark (Greenland), and Norway if all the current and expected claims to the UN Commission on the Limits of the Continental Shelf (CLCS) are approved.<sup>97</sup> Being a signatory to the United Nations Convention on the Laws of the Sea (UNCLOS), Chinese academics have expressed concern that China will have restricted rights and limited access to an ice-free Arctic Ocean.<sup>98</sup> Other prominent Chinese researchers, such as Li Zhenfu, have identified the Arctic's potential advantages to Chinese economic and military interests, and have urged the Chinese government to be more assertive.<sup>99</sup> In March, 2010, a prominent Chinese military naval officer, Rear Admiral Yin Zhuo, was quoted to say, "The Arctic belong to all the people around the world, as no nation has sovereignty over it... China must play an

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<sup>96</sup>"President Hu Jintao's Interview with American Press," Ministry of Foreign Affairs, People's Republic of China, last modified 17 January 2011, <http://www.fmprc.gov.cn/eng/topics/hjtzxdmgfw/t787237.shtml>.

<sup>97</sup>Jakobson, *China Prepares for an Ice-Free Arctic*, 10.

<sup>98</sup>Gang Chen, *China's Emerging Arctic Strategy*, 364.

<sup>99</sup>Muhammad Makki, "China's Quest for Arctic Access & Resources" *IAGS Journal of Energy Security* (April 2012): [http://www.ensec.org/index.php?option=com\\_content&view=article&id=351](http://www.ensec.org/index.php?option=com_content&view=article&id=351).



indispensable role in Arctic exploration as we have one-fifth of the world's population."<sup>100</sup>

Such rhetoric from Chinese academics and military personnel is reasonable to hear considering the absence of a formal Chinese Arctic policy. As Linda Jakobson describes, it is common for scholars, political commentators, retired military officials, and special interest groups to publicly discuss and debate recommended policy direction before the CCP forms and disseminates an official position.<sup>101</sup> Congruently, the propagation of strong national sponsorship from independent voices is not uncommon in even the most benign and law-abiding Western nations. Therefore, it would be more appropriate to evaluate China's official strategic direction and its tangible Arctic work to date than to focus solely on extreme points of view. If anything, hawkish opinions from various government officials and academics have caused great concern for the Chinese government as their dissemination has fuelled anxiety within the international community about the true intent behind China's Arctic investment.

China has tried to avoid excessive attention on its plans for the Arctic, but by failing to release a formal Arctic policy, China may have inadvertently ratcheted up international rhetoric over the Middle Kingdom's true intentions. Until China is more open about their Arctic strategy, traces of China's Arctic official position can be inferred from their 12<sup>th</sup> Five Year Plan. The 12<sup>th</sup> Five Year Plan is drafted by the CCP's State Council, approved by the People's National Congress, and provides strategic direction for

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<sup>100</sup>Gordon G. Chang, "China's Arctic Play," *The Diplomat*, last modified 9 March 2010, <http://thediplomat.com/2010/03/09/china%E2%80%99s-arctic-play/>.

<sup>101</sup>Jakobson and Jingchao Peng, *China's Arctic Aspirations*, 22.

the country over the next five years. Chapter 14 of the English translation provides detail on China's general view on its role in the maritime environment:

Strengthen integrated marine surveying and mapping, and carry out polar and oceanic scientific investigation actively. Improve maritime laws, regulations and policies, and enhance marine law-enforcement to maintain the order of exploitation of marine resources. Strengthen bilateral and multilateral marine affairs negotiation, participate in international marine affairs actively, ensure the safety of marine transport channels, and maintain our country's marine rights and interests.<sup>102</sup>

As of late 2012, China's maritime strategy was still being formulated by the China Institute for Marine Affairs (CIMA), an organization falling under the State Oceanic Administration (SOA).<sup>103</sup> Arctic issues are not buried beneath the ruling government, though. For instance, China's recently announced second icebreaker was approved for funding by the State Council, which is the highest governmental body in the CCP.<sup>104</sup>

As decreed in its national strategy, China plans to continue its growth along the peaceful road to development in accordance with its Five Principles of Peaceful Coexistence. In accordance with their philosophy to keep a low profile on the world stage, China understands that if it comes across as too aggressive in the Arctic, it could face opposition as it tries to expand its Arctic presence.<sup>105</sup> As a result, China has spent a large amount of diplomatic effort in the last few years building co-operative relationships with Arctic states, particularly the Nordic countries.

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<sup>102</sup>"Full Translation of the 12th Five Year Plan," CBI China, last accessed 25 February 2013, <http://www.cbichina.org.cn/cbichina/upload/fckeditor/Full%20Translation%20of%20the%2012th%20Five-Year%20Plan.pdf>, Chapter 14.

<sup>103</sup>Gang Chen, *China's Emerging Arctic Strategy*, 368.

<sup>104</sup>Jakobson and Jingchao Peng, *China's Arctic Aspirations*, 4.

<sup>105</sup>Christoph Seidler, "The Resource Race: China Dips Toes in Arctic Waters" *SPIEGEL ONLINE - International - the Race for the Arctic*, last modified 25 January 2013, <http://www.spiegel.de/international/world/growing-chinese-interest-in-the-arctic-worries-international-community-a-879654.html#ref=rss>.

In 2008, Beijing and Denmark stated their relationship had been elevated to a strategic partnership, which would include co-operation on topics such as technology, science, and trade.<sup>106</sup> In 2009, senior Chinese officials visited Norway, Finland, Iceland, Denmark, and Sweden, and in 2012, China's Premier Wen Jiabao visited Iceland and Sweden.<sup>107</sup> Shortly after Wen's visit in 2012, China's President Hu Jintao conducted a state visit to Denmark and held talks with Denmark's Queen Margrethe II in Copenhagen, initiating the first Chinese head of state visit to Denmark since the countries formalized relations in 1950.<sup>108</sup> China's Copenhagen embassy is twice the size of the Chinese embassy in Washington, D.C.,<sup>109</sup> and the Chinese embassy in Reykjavik is the largest in Iceland.<sup>110</sup> Such high-level visits to key Arctic nations and the size of China's embassies in those countries illustrate the newfound importance China places on the Nordic region. The significance of Denmark (read: Greenland) and Iceland to China's future Arctic plans is clear.

China has also made conscious efforts to promulgate specific language that associates them with the Arctic. China has made frequent references describing itself as a *near-Arctic state* or an *Arctic stakeholder*.<sup>111</sup> During the Arctic Frontiers Conference in Tromsø, Norway in January 2013, China's ambassador to Norway explained that his country's interest in the Arctic was justified because China's northeast territory stretches

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<sup>106</sup>Mroczkowski, *China's Arctic Powerplay*.

<sup>107</sup>Kian Beng Kor, "The Dragon Eyes the Top of the World," *The Straits Times* (Apr 29, 2012): <http://search.proquest.com/docview/1010103043?accountid=9867>.

<sup>108</sup>"Danish PM: Hu Jintao's Trip a "Historic Visit"," Xinhua, last modified 16 June 2012, [http://news.xinhuanet.com/english/video/2012-06/16/c\\_131657120.htm](http://news.xinhuanet.com/english/video/2012-06/16/c_131657120.htm).

<sup>109</sup>Erickson and Collins, *China's New Strategic Target: Arctic Minerals*.

<sup>110</sup>Gang Chen, *China's Emerging Arctic Strategy*, 363.

<sup>111</sup>Jakobson and Jingchao Peng, *China's Arctic Aspirations*, 24.

so far north.<sup>112</sup> In reality, China's Mohe County only stretches to approximately 53° North, but to the Chinese it is an "Arctic Village".<sup>113</sup> As promulgated on a Chinese website:

As the northmost point of China, Mohe Village is known as "China's Arctic Village" and the "place that never sleeps". In winter, it becomes a world of ice and snow. Visitors can go skating and skiing, have a snowball fight with friends, make a snowman with your family, or even learn how to catch fish by making holes in the ice.<sup>114</sup>

Despite the fact that their legal rights to the Arctic are limited, China is expected to continue to promulgate specific terminology describing itself as a *near-Arctic state* or an *Arctic stakeholder* until such language becomes accepted among the international community.<sup>115</sup> It is reasonable to assume China's access to the Arctic will continue to be limited to existing treaties (i.e. the Svalbard Treaty), emerging partnerships and other bilateral agreements. As a member of the International Maritime Organization (IMO), a signatory to the UNCLOS, and a UN Security Council member, China is bound to adhere to international law in this regard. Ultimately, China is interested in expanding its influence beyond just the Arctic region. China remains committed to its grand strategy and national guiding principles of harmonious interaction with the international community. Primary among China's options to increase international co-operation and extend its Arctic influence is to secure permanent status within the Arctic Council.

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<sup>112</sup>Seidler, *The Resource Race: China Dips Toes in Arctic Waters*.

<sup>113</sup>"China's "Arctic Village" to Build Airport," Xinhua News Agency, last modified 15 July 2005, [http://news.xinhuanet.com/english/2005-07/15/content\\_3222301.htm](http://news.xinhuanet.com/english/2005-07/15/content_3222301.htm).

<sup>114</sup>"China's Arctic Village in Mohe," China.org.cn, last modified 15 July 2005, [http://china.org.cn/travel/2013-01/18/content\\_27725657.htm](http://china.org.cn/travel/2013-01/18/content_27725657.htm).

<sup>115</sup>Jakobson, *China Prepares for an Ice-Free Arctic*, 13.

## Arctic Governance through the Arctic Council

The Arctic Council was officially formed in Ottawa in 1996 as a high-level intergovernmental forum to provide a mechanism for Arctic States, Arctic Indigenous communities and other Arctic inhabitants to co-operate, co-ordinate and liaise on common Arctic issues, such as sustainable development and environmental protection.<sup>116</sup> Despite its humble origins, the Arctic Council has gathered momentum and credibility as the main forum for discussing environmental and select economic issues among relevant stakeholders.<sup>117</sup> As evidenced by its action on Arctic oil spill response, future port fees, and Search and Rescue (SAR) agreements, the forum has evolved into an entity that is capable of enacting change.<sup>118</sup> As championed by Gustaf Lind, the Arctic ambassador from Sweden and the Arctic Council president in 2012, “We've changed from a forum to a decision-making body.”<sup>119</sup> Although the mandate of the Arctic Council specifically prohibits military considerations, and its decisions are non-binding, China’s ambassador to Sweden would seem to concur with Lind. According to H.E. Ambassador Lan Lijun, the Arctic Council is “the most important regional inter-governmental forum to address issues of environmental protection and sustainable development in the Arctic.”<sup>120</sup>

Since 2007, China has attended the Arctic Council ministerial meetings as an ad-hoc observer. China re-applied to be a permanent observer in 2009, but a decision to

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<sup>116</sup>Arctic Council, "History," Arctic Council Chairmanship Secretariat, last accessed 27 February 2013, <http://www.arctic-council.org/index.php/en/about-us/history>.

<sup>117</sup>Lasserre, *China and the Arctic: Threat Or Cooperation Potential for Canada?*, 11.

<sup>118</sup>Elisabeth Rosenthal, "China Muscles in on Arctic Resource Race," *International Herald Tribune* September 19, 2012.

<sup>119</sup>*Ibid.*

<sup>120</sup>Lan Lijun, (speech, Arctic Council and Observers, Stockholm, Sweden, November 6, 2012).

approve China's bid was turned down as Arctic Council members debated over who should be admitted and the criteria upon which observer applicants must be judged.<sup>121</sup> At the next Ministerial meeting in 2011, the Arctic Council deferred a vote on admitting China as a permanent observer.<sup>122</sup> As an ad-hoc observer, China must apply to attend Arctic Council ministerial meetings; permanent observers are automatically invited. It would also be fair to concede that a permanent observer has more influence and cache with the council than an ad-hoc observer. China's next opportunity for admission is at the Ministerial Meeting in May 2013,<sup>123</sup> and analysis continues to build over how the council will vote.

Considering China's growing global influence and the objectives identified in its 12<sup>th</sup> Five Year Plan, having an influential voice at the Arctic Council is important to China. During a speech to the Arctic Council in late 2012, Ambassador Lan Lijun restated China's plea for permanent observer status. Ambassador Lan Lijun assured the council that respect of the Arctic nations' sovereign rights and jurisdiction over their Arctic territory was a pre-condition for observer status, but certain Arctic issues, such as international shipping and climate change are "trans-regional" issues that affect non-Arctic nations as well.<sup>124</sup> Furthermore, "natural changes and economic development in the Arctic have significant impact on China's climate, ecological environment, [and] agricultural production as well as social and economic development."<sup>125</sup> Once again, in

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<sup>121</sup>Chircop, *The Emergence of China as a Polar-Capable State*, 13.

<sup>122</sup>Jakobson and Jingchao Peng, *China's Arctic Aspirations*, 15.

<sup>123</sup>Arctic Council, *Observers*.

<sup>124</sup>Lan Lijun, *Statement by H.E. Ambassador Lan Lijun at the Meeting between the Swedish Chairmanship of the Arctic Council and Observers*.

<sup>125</sup>*Ibid.*

2013, China's ambassador to Norway iterated China's desire "to communicate and cooperate with all relevant parties...[and that] it would also welcome a chance to be granted observer status on the Arctic Council."<sup>126</sup> The ambassador's comments and China's actions have served as good indicators of China's deep interest in the Arctic. As Linda Jakobson summarizes: "[China] does not want to be kept outside of any institution which will govern the Arctic."<sup>127</sup>

China's lobbying efforts and increased diplomatic expenditures have had effect. In late 2011, Denmark's ambassador to China opined that China has "legitimate economic and scientific interests in the Arctic" even though China has no Arctic coastline.<sup>128</sup> In 2012, both Sweden and Iceland openly affirmed their support for China to join the Arctic Council as a permanent observer.<sup>129</sup> Additionally, Norway has recently stated that it supports China's admission to the Arctic Council as a permanent observer despite an ongoing discord between the two countries over a recent award of the Nobel Peace Prize to an incarcerated Chinese activist.<sup>130</sup>

It may be technically correct to label China's Arctic strategy as emergent, however, China certainly has a guiding principle for its role in the Arctic. Stemming from its grand strategy and 12<sup>th</sup> Five Year Plan, China's Arctic policy hinges on gaining access

<sup>126</sup>Seidler, *The Resource Race: China Dips Toes in Arctic Waters*.

<sup>127</sup>Joyce Man, "China Vies for Seat at Council on Arctic Resources and Trade Routes," GlobalPost, last modified 31 July 2012, <http://www.globalpost.com/dispatch/news/regions/asia-pacific/china/120629/arctic-council-oil-natural-resources>.

<sup>128</sup>Robert Sibley, "China Enters the Arctic Equation," *Postmedia News*, Oct 28, 2011.

<sup>129</sup>Johan Nylander, "Sweden Supports China's Arctic Push," *The Swedish Wire*, last modified 18 April 2012, <http://www.swedishwire.com/politics/13449-sweden-supports-chinas-arctic-push->; "Iceland Supports China at the Arctic Council," *Arctic-Info*, last modified 22 August 2012, <http://www.arctic-info.com/News/Page/iceland-supports-china-at-the-arctic-council->.

<sup>130</sup>Torbjørn Næs Bertelsen, "Could Norway be Out of China's Diplomatic Freezer?" *GBTimes*, January 23, 2013.

to the North through co-operating states. Irrespective of select Chinese nationalists calling for Chinese dominance in the Arctic, the actual interaction of the PRC with the international community has been quite benign and the implementation of China's soft power strategy can be readily seen in most Chinese dealings with Arctic states. China's diplomatic moves and research initiatives are congruent with a benevolent global power. The Chinese government has made the right statements and demonstrated an obvious desire to be a part of the Arctic's recognized governing forum. It is worthy to note that hawkish Chinese sentiment in academics and other prominent representatives has actually died down in the last year, leading some to speculate that it may be related to China's second deferral on permanent observer status at the Arctic Council.<sup>131</sup> It is unclear when China will gain Arctic Council permanent observer status, however it is certain they will not quit trying. China should be expected to continue as an ad-hoc observer due to the multiple benefits of being at the table in any capacity.

### **Arctic Potential for Economic Growth**

China is keen to exert a greater influence in global affairs and act upon its mandate of economic growth. Those countries that expand trade and resource development with China will derive tangible economic benefits from a booming Chinese economy and direct foreign investment. In some respects, China's economic interests in the Arctic are the most straightforward aspect of their grand national strategy. China's

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<sup>131</sup>Jakobson and Jingchao Peng, *China's Arctic Aspirations*, v.



huge economy requires large quantities of natural resources, and China's dependence on international trade is so great that it should be considered the country's center of gravity.

As detailed in their 12<sup>th</sup> Five Year Plan, one of China's major goals is to increase rural and urban income in order to instill a more balanced growth model.<sup>132</sup> Thus far, China has made significant strides in lifting millions of citizens out of poverty. In less than 50 years, 300 million Chinese have gone from living on less than US\$1.25 per day to living in standards that rival those of the Western world.<sup>133</sup> In order to foster additional momentum, China will attempt to reduce their reliance on exports and foreign capital by diversifying its economy to promote domestic consumption as well. Increasing the wealth of its middle class will be a key enabler for China to achieve its ambitions, and expand its economy at an annualized rate of 7 percent per annum during the 2011-2015 timeframe.<sup>134</sup> The middle class is the key, and according to Helen H. Wang, "the rise of China's middle class is the biggest story of our time."<sup>135</sup> The rise of China's middle class will trumpet China's graduation into the world of consumerism.

With the world's largest population and second-largest GDP, China only ranks fifth in the world in domestic consumption. For comparison, domestic consumption represents 35 percent of China's GDP whereas in India, Europe, and the U.S., it

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<sup>132</sup> *Full Translation of the 12th Five Year Plan*, Chapter 4 and Chapter 49.

<sup>133</sup> Moyo, *Winner Take all: Winner Take all China's Race for Resources and what it Means for the World*, 19.

<sup>134</sup> *Full Translation of the 12th Five Year Plan*, Chapter 36.

<sup>135</sup> Helen H. Wang, "The Biggest Story of Our Time: The Rise of China's Middle Class," *Forbes*, last modified 21 December 2011, <http://www.forbes.com/sites/helenwang/2011/12/21/the-biggest-story-of-our-time-the-rise-of-chinas-middle-class/>.

constitutes 50 percent, 60 percent, and 70 percent, respectively.<sup>136</sup> As China's average incomes rise, its citizens will purchase better food, participate in more recreational activities, and enjoy tourism, but they will also flock to consumer devices like cell phones, TVs, washing machines, and automobiles. These types of purchases will increase China's domestic demand, intensifying an already strong requirement for resources to sustain its world-class manufacturing base. Additionally, as more of China's population urbanizes, the expanding infrastructure and new construction will drive a concomitant increase in raw materials to support expansion.

### Natural Resources

In the last 10 years, China has been busy securing natural resource deals around the world. Ever since China's government gave decisive direction to Chinese State Owned Enterprises (SOEs) to 'go out' beyond China's borders and look for new sources of minerals and energy,<sup>137</sup> China has established significant trading ties with the continent of Africa. Some authors have described China's push for resources as an insatiable scramble,<sup>138</sup> while others have characterized China's investments in Africa as simply an aggressive move to extract natural resources for Chinese use at home.<sup>139</sup>

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<sup>136</sup>Moyo, *Winner Take all: Winner Take all China's Race for Resources and what it Means for the World*, 69.

<sup>137</sup>Ting Xu, "Destination Unknown: Investment in China's "Go Out" Policy," *China Brief* 11, no. 17, (September 16, 2011): 14.

<sup>138</sup>Peter Marton and Tamas Matura, "The 'Voracious Dragon', the 'Scramble' and the 'Honey Pot': Conceptions of Conflict Over Africa's Natural Resources," *Journal of Contemporary African Studies* 29, no. 2 (2011): 156.

<sup>139</sup>Wenran Jiang, "Fuelling the Dragon: China's Rise and its Energy and Resources Extraction in Africa," *The China Quarterly* 199 (Sep 2009): 588.

China's customs data shows that trade with Africa increased 681 percent between 2001 and 2007 linking China's marked increase in trade with Africa directly to its extensive growth in mining and energy extraction activities on the African continent. China's explosive trade with Africa is not unique, though; in the same time period, China's trade with Latin America has grown 687 percent.<sup>140</sup> To illustrate, in 2007 China purchased Mount Toromocho, a mountain in Peru containing over 2 billion tonnes of copper and one of the largest single copper deposits in the world, for US\$3 billion. Additionally, in 2008 the same company paid US\$13 billion for a stake in the Australian aluminum sector.<sup>141</sup>

Obviously, as China's consumption increases, demand for raw materials and energy will rise too. China has evolved from a net exporter of oil in the 1990s to a country that imports 50 percent of its oil requirements.<sup>142</sup> In fact, in the early 1990s, China was East Asia's largest oil exporter, producing approximately 4.4 million barrels of oil per day, but nowadays China consumes well over 8 million barrels of oil per day.<sup>143</sup> Having already experienced a marked increase in energy and resource demand in the 1990s and 2000s, China's demand for energy will spike again as the Chinese economy strives to achieve the economic goals laid out in the 12<sup>th</sup> Five Year Plan. As a result,

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<sup>140</sup>*Ibid.*, 590.

<sup>141</sup>Moyo, *Winner Take all: Winner Take all China's Race for Resources and what it Means for the World*, 1.

<sup>142</sup>Wenran Jiang, *Fuelling the Dragon: China's Rise and its Energy and Resources Extraction in Africa*, 590.

<sup>143</sup>Brian Sylvester, "China Deeply Vested in Canada, with More to Come," Mining.com, last modified 30 October 2012, <http://www.mining.com/china-deeply-vested-in-canada-with-more-to-come-25807/>.

many critics fear the ongoing scramble for Earth's finite natural resources will spread to the Arctic.

To date, there has been relatively little Chinese resource extraction in the Arctic, but the ambition is building. Greenland's government endorsed a \$2.35 billion iron ore project by London Mining that will employ up to 5,000 Chinese workers, be financed by China, and ship 15 million tonnes of iron from Nuuk to China annually.<sup>144</sup> Thus far China's footprint in the Arctic is light and despite the potential, none of Greenland's mining or oil projects have started production.<sup>145</sup> Still, China's interest in Greenland has instilled concern among certain Western nations:

In the face of such growing Chinese interest in Greenland, Europe has become concerned. It recently requested that Greenland restrict Chinese access to Greenland's rare earths because China already controls 95 percent of world production and has at times used its monopoly position to drive up prices or to punish other nations for perceived political transgressions. However, despite these concerns, Greenland's premier recently rejected the EU request saying: "Greenland is open for investments from the whole world."<sup>146</sup>

Perhaps of even greater concern to Arctic states and some Western countries is the fear that greater Chinese influence in Greenland could provide China a proxy voice in Arctic affairs.<sup>147</sup> Realistically, this type of rhetoric is tainted when one considers the vast Chinese investment in other Arctic nations, including Canada and Russia. For example, in 2012 the China National Offshore Oil Corporation (CNOOC) purchased the Canadian

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<sup>144</sup>Adam Currie, "Greenland Resource Sector Confirms no Favoritism," Dig Media Inc., last modified 4 February 2013, <http://rareearthinvestingnews.com/8971-greenland-china-european-union-ggg-lond.html>.

<sup>145</sup>Scrutton, *Insight: Great Expectations Fill Greenland as China Eyes Riches*.

<sup>146</sup>Paula Briscoe, "Greenland—China's Foothold in Europe?" *Asian Unbound* (blog) *Council on Foreign Affairs*, February 1, 2013, <http://blogs.cfr.org/asia/2013/02/01/paula-briscoe-greenland-chinas-foothold-in-europe/>.

<sup>147</sup>*Ibid.*

company Nexen for \$15.1 billion,<sup>148</sup> and PetroChina, China's biggest oil and gas producer and distributor, bought 20 percent of Royal Dutch Shell's Groundbirch shale-gas asset in British Columbia.<sup>149</sup> Although China has purchased massive Canadian natural gas and oilsand production, there isn't any concern that Canada's Arctic interests have been compromised. Similarly, 20 years of oil deliveries in exchange for \$25 billion in Chinese credit to Rosneft and Transneft (major Russian oil and oil pipeline companies) has not lead to concerns about Russia being influenced by China in Arctic matters.<sup>150</sup> Lastly, China Petrochemical Corp.'s agreement to purchase a stake in Chesapeake Energy Corp. for US\$1.02 billion does not cause alarmed observers to question the U.S.' intent to protect national interests.<sup>151</sup> As Martin Breum and Jorgen Chemnitz succinctly summarize:

But let us stay cool as we discuss these prospects. Farfetched speculation is currently emanating from think-tanks and commentators on how Chinese military bases and Greenland's rapid independence from Denmark are likely offshoots of these industrial projects. Such speculation is less than helpful. Greenland and its population of 57,000 are preparing for difficult transitions and a potential influx of foreign workers, but it is not the end of the world. Chinese investment may provide state-run Chinese companies with political leverage on the small and economically weak Selfrule Authority, but decision-makers in Nuuk are aware of these risks. They are weighing the pros and cons of Chinese investments, just like other governments. Greenland's population may be small, but

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<sup>148</sup>Jack Perkowski, "Canada Greenlights CNOOC's Purchase of Nexen," Forbes.com LLC, last modified 11 December 2012, <http://www.forbes.com/sites/jackperkowski/2012/12/11/canada-greenlights-cnoocs-purchase-of-nexen/>.

<sup>149</sup>Mroczkowski, *China's Arctic Powerplay*.

<sup>150</sup>Artem Zagorodnov, "Rosneft to Attract Chinese, Korean Investment to Arctic Shelf," Rossiyskaya Gazeta, last modified 19 February 2013, [http://rbth.ru/news/2013/02/19/rosneft\\_inks\\_memorandum\\_with\\_sinopec\\_on\\_possible\\_oil\\_delivery\\_increase\\_23037.html](http://rbth.ru/news/2013/02/19/rosneft_inks_memorandum_with_sinopec_on_possible_oil_delivery_increase_23037.html).

<sup>151</sup>Aibing Guo and Rakteem Katakey, "China Joining U.S. Shale Renaissance with US\$40B," National Post, last modified 5 March 2013, [http://business.financialpost.com/2013/03/05/china-joining-u-s-shale-renaissance-with-us40b/?\\_lsa=5898-84e4](http://business.financialpost.com/2013/03/05/china-joining-u-s-shale-renaissance-with-us40b/?_lsa=5898-84e4).

Greenland is a democracy and remains firmly within the Kingdom of Denmark and the security sphere of NATO and the United States.<sup>152</sup>

Since most of the mining and hydrocarbon extraction activities in the Arctic are dangerous, expensive, and difficult to execute, it will take extreme market pressure, high prices in natural resource, and improved environmental conditions to drastically upshift exploitation of the Arctic's natural resources. China has a strong incentive to acquire rights to Arctic resource deposits, they have capital to invest in the resource extraction, and they continue to develop diplomatic relations with Arctic nations, but currently all development projects with Nordic countries are at an early stage.<sup>153</sup> In the meantime, China is able to supply its natural resource demands with deals from non-Arctic sources, such as Africa, South America, Russia, Canada, and, potentially, the U.S. At an Arctic Frontiers Conference in Tromsø in January 2013, China's ambassador to Norway, Zhao Yun, went on record to say, "Currently, China has not carried out any exploration activities in the Arctic."<sup>154</sup> Despite the near-term challenges and official statements from Chinese officials, China clearly views the Arctic as a source of resources in the future. Technology, experience, and access gained from agreements, mergers and acquisitions, combined with research data garnered from Arctic scientific expeditions will enable China to harness the resources of the Arctic when market conditions deem it suitable. The

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<sup>152</sup>Martin Breum and Jorgen Chemnitz, "No, Greenland does Not Belong to China," The New York Times Company, last modified 20 February 2013, [http://www.nytimes.com/2013/02/21/opinion/no-greenland-does-not-belong-to-china.html?\\_r=0](http://www.nytimes.com/2013/02/21/opinion/no-greenland-does-not-belong-to-china.html?_r=0).

<sup>153</sup>Pu Jun, *Greenland Lures China's Miners with Cold Gold*.

<sup>154</sup>Seidler, *The Resource Race: China Dips Toes in Arctic Waters*.

potential of vast reserves of resources and the political stability of the Arctic compared to other parts of the world make the Arctic too attractive to ignore.<sup>155</sup>

### International Shipping Routes

Another major Chinese motivation for pursuing an active role in the Arctic concerns the potential of new strategic shipping routes. Up to half of China's GDP is directly tied to maritime shipping,<sup>156</sup> therefore the value and security of improved shipping routes to and from China cannot be understated. As suggested by Guo Peiqing, as China becomes even more dependent on imported resources, shorter transportation routes become a bigger priority in their global strategy.<sup>157</sup> Guo Peiqing has estimated that approximately 70 percent of world trade occurs between East Asia, North America, and Europe, and that access to Arctic routes could substantially reduce the voyage between these crucial economic zones.<sup>158</sup> Guo Peiqing states:

This will change the structure of global trade. It may well bring about the emergence of a new, circumpolar supereconomic belt made up of Russia, North America and Northern Europe. It could have a more strategic significance than that which occurred with the opening of the Suez Canal in 1869.<sup>159</sup>

In 2010, the Russian tanker *Baltika*, loaded with 70,000 tons of gas condensate, sailed from Murmansk, Russia, through the northern polar region to Ningbo, China

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<sup>155</sup>Christoph Seidler, "New Estimates for Drilling Costs: The Exorbitant Dream of Arctic Oil " *SPIEGEL ONLINE - International - the Race for the Arctic*, last modified 26 January 2011, <http://www.spiegel.de/international/business/new-estimates-for-drilling-costs-the-exorbitant-dream-of-arctic-oil-a-741820.html#ref=rss>.

<sup>156</sup>Jakobson, *China Prepares for an Ice-Free Arctic*, 5.

<sup>157</sup>Leo Ryan, "China Serves Notice as it Targets Arctic Role," *Canadian Transportation Logistics* 114, no. 2 (Feb 2011): 6.

<sup>158</sup>*Ibid.*

<sup>159</sup>*Ibid.*

demonstrating the feasibility of Arctic shipping. The voyage of MV Nordic Barents from Kirkenes, Norway to China was roughly 50 percent shorter than standard routes and saved 15 days at sea. The Sino-Russian energy relationship appears to be strengthening after a March 2013 agreement between China and Russia will double Russian oil exports and create a gas pipeline to China. China National Petroleum Corp. also signed licenses to explore three Arctic offshore areas with Rosneft in the Pechora and Barents Seas.<sup>160</sup> This type of deal (and future ones) could substantially increase Arctic shipping traffic between Russian and Chinese ports.

Examples provided in Table 4.1 demonstrate the shorter distances available between Shanghai and Rotterdam along various traditional and Arctic routes. Transits along Russia's NSR represent a noteworthy reduction in distance and could reduce Asia-to-Europe (or vice versa) trips by up to 19 days, consuming less fuel and emitting fewer greenhouse gases. Aside from shorter distances, the Arctic routes offer a reduced exposure to piracy and improved political stability compared to risks associated with shipping through the Gulf of Aden.<sup>161</sup> One Earth Future, a U.S.-based think tank, estimates the global economy loses \$7 billion to \$12 billion per year due to increased insurance premiums, ransoms and disruptions resulting from piracy.<sup>162</sup> According to Aon Risk Services, insurance premiums on piracy liabilities rose tenfold over six months in

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<sup>160</sup>Rakteem Katakey and Will Kennedy, "Russia Lets China into Arctic Rush as Energy Giants Embrace," Bloomberg L.P., last modified 25 March 2013, <http://www.bloomberg.com/news/2013-03-25/russia-cuts-china-into-arctic-oil-rush-as-energy-giants-embrace.html>.

<sup>161</sup>Vanderklippe, *Study Predicts Arctic Shipping Quickly Becoming a Reality*.

<sup>162</sup>Ian Lewis, "UN Seeks Action as Piracy Costs Spiral," *Petroleum Economist* (Feb 2011): n/a.



**Table 4.1 – Route Distance Comparison for Shanghai-to-Rotterdam**

<b>Routing</b>	<b>Shanghai-to-Rotterdam voyage (kilometers)</b>
Panama Canal	25,588
Suez Canal	19,550
Northern Sea Route	15,793
Northwest Passage	16,100
Transpolar Route	13,630

Source: Vanderklippe, *Study Predicts Arctic Shipping Quickly Becoming a Reality*.

2009 due to the threat from piracy,<sup>163</sup> thereby mitigating some of the increased cost one would normally incur by hiring a Russian icebreaker as an escort. Bin Yang of Shanghai Maritime University thinks the NSR could save China a \$60-billion to \$120-billion a year.<sup>164</sup> From Chinese scholar Guo Peiqing's perspective, the Arctic could become "a new energy corridor that would be safer than the Indian Ocean, where piracy is such a plague on the world's shippers, including China."<sup>165</sup>

Dr. Lawson Brigham, Distinguished Professor of Geography & Arctic Policy at the University of Alaska Fairbanks acknowledges the Arctic ice is thinning and becoming more brittle as much of the sea ice transitions from multi-year to first-year ice, but states resource extraction, tourism, fishing, and scientific research will drive the bulk of Arctic

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<sup>163</sup>Richard Newman, "Insurers Quick to Respond to Piracy," *McClatchy - Tribune Business News* (Apr 17, 2009).

<sup>164</sup>Michael Byers, "Asian Juggernaut Eyes our 'Golden' Waterways," *The Globe and Mail Inc.*, last modified 10 September 2012, <http://m.theglobeandmail.com/commentary/asian-juggernaut-eyes-our-golden-waterways/article626936/?service=mobile>.

<sup>165</sup>Ryan, *China Serves Notice as it Targets Arctic Role*, 6.

merchant traffic.<sup>166</sup> Undoubtedly, economic challenges related to a short season, insurance, and limited ice breaker support are expected to hamper Arctic commercial shipping, however, the incentive for China to capitalize on the Arctic benefits to shipping makes undeniable sense with longer timelines. Mining and energy drilling are definitely driving increased maritime activity in the short term, as exemplified by Russia's Gazprom, which has deployed the first of two 260-meter long, ice-strengthened tankers servicing the Prirazlomnoye oil field that can cut through 1.5 meters (5 feet) thick ice. Russia's Lukoil has constructed three similar ships to transport oil from the Varandey offshore terminal to Murmansk, and the Norilsk nickel-mining corporation has five freighters that can also be used as icebreakers.<sup>167</sup> However, raw materials companies operating icebreaking ships to haul all types of hydrocarbons and materiel out of the Arctic are not the only interested players. Shipyards in Asia are busy cutting steel on commercial bulk carriers with novel features for transit in ice-covered waters:

The South Korean shipyards Daewoo and Samsung (both private firms) have been building ice-strengthened cargo ships for the past 10 years. In 2007 they purchased the leading shipyard in the sector, Aker Finnyards of Finland, which had developed a promising new technology for ice navigation, the double-acting ship. Aker's order books are full for the next few years, and it will provide cargo ships mainly for the Barents and Kara Seas.<sup>168</sup>

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<sup>166</sup>Elena von Sperber and Elizabeth Tedsen, *Arctic Marine Transportation* Ecologic Institute, last modified 6 August 2012, [http://arcticsummercollege.org/sites/default/files/Transport%20policy%20brief Arctic%20Summer%20College August%206%202012.pdf](http://arcticsummercollege.org/sites/default/files/Transport%20policy%20brief%20Arctic%20Summer%20College%20August%206%202012.pdf).

<sup>167</sup>Christoph Seidler and Gerald Traufetter, "Boon to Global Shipping: Melting of Arctic Ice Opening Up New Routes to Asia " *SPIEGEL ONLINE - International - the Race for the Arctic*, last modified 27 September 2010, <http://www.spiegel.de/international/business/boon-to-global-shipping-melting-of-arctic-ice-opening-up-new-routes-to-asia-a-719740.html#ref=rss>.

<sup>168</sup>Lasserre, *China and the Arctic: Threat Or Cooperation Potential for Canada?*, 10.

Furthermore, data clearly shows vessel traffic is on the rise, and several companies have proven Arctic travel to be effective. According to Ulf Hagen, managing director of Tschudi Arctic Transit, a Norwegian company that has sent more than a dozen vessels through the NSR, "It's lower than what you have to pay going through the Suez Canal."<sup>169</sup> Recently, UCLA researchers working with climate-change forecasting models concluded that the Arctic will become "much more accessible than ever imagined," and will result in a spike in ship traffic in the coming decades.<sup>170</sup>

The basis of China's economic expansion will rest upon the continued importation of raw materials to fuel their industrial capacity. Concurrently, the export of manufactured goods will remain a cornerstone of their economy. Both endeavours require China to maximize efficiencies, and although Arctic shipping is in an infantile stage, it is poised to expand quickly in the coming decade. Considering the ongoing execution of China's grand strategy and the central role of shipping to their economic rise, China can be expected to make Arctic shipping a vital expansion of their shipping blueprint.

Spanning the gulf between China's desire for increased geopolitical influence and continued economic development is China's polar research effort. Research in ecology and environmental change is a solid foundation to support China's Arctic Council bid because climate change affects everyone. By building expertise and skill in polar issues that have global bearing, it has been noted that China appears to be using its research as a

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<sup>169</sup>Vanderklippe, *Study Predicts Arctic Shipping Quickly Becoming a Reality*.

<sup>170</sup>Randy Boswell, "U.S. Study Foresees Big Spike in Arctic Shipping by Mid-Century," The Ottawa Citizen, last modified 5 March 2013, <http://www.ottawacitizen.com/business/study+foresees+spike+Arctic+shipping+century/8048770/story.html>.

means to engage Arctic states.<sup>171</sup> Notwithstanding some pundits' concerns about China's long-term intentions in the Arctic, the international community stands to benefit from China's Arctic presence. Welcoming China into the Arctic fold will yield greater access to China's vast research capabilities and polar research data.

### **China's Polar Research Strategy**

China joined the 1920 Svalbard Treaty on invitation from France in 1925, but it did not exhibit any tangible interest in the Arctic until the Polar Research Institute of China (PRIC) was formed under the State Oceanic Administration (SOA) in 1989.<sup>172</sup> Prior to heading north, China built extensive experience conducting Antarctic research through the 1980s and 1990s. Since 1984, China has executed 31 polar (Arctic and Antarctic) expeditions and built three research stations,<sup>173</sup> and after beginning its Arctic research effort in 1996, joined the International Arctic Science Committee and actively participated in the International Polar Year.<sup>174</sup> In 2003 China opened its first Arctic research station, called the Yellow River Research Center, in Ny-Ålesund, Norway.<sup>175</sup> The Chinese Arctic and Antarctic Administration has since organized a Chinese National Arctic Research event in Norway every year since 2004,<sup>176</sup> and its icebreaker, MV Xue Long (Snow Dragon) has conducted five Arctic expeditions (1999, 2003, 2008 and 2010,

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<sup>171</sup>Chircop, *The Emergence of China as a Polar-Capable State*, 14.

<sup>172</sup>*Ibid.*, 9.

<sup>173</sup>Man, *China Vies for Seat at Council on Arctic Resources and Trade Routes*.

<sup>174</sup>Chircop, *The Emergence of China as a Polar-Capable State*, 12.

<sup>175</sup>*Ibid.*

<sup>176</sup>Gang Chen, *China's Emerging Arctic Strategy*, 362.

and 2012).<sup>177</sup> In fact, China's Arctic expeditions have proven to be so popular that the PRC is currently constructing a second large icebreaker, so it can support its Antarctic and Arctic polar expeditions concurrently.<sup>178</sup> China is even considering adding nuclear-powered polar expedition ships to its inventory.<sup>179</sup> Through years of investment, "[China's] scientists have become pillars of multinational Arctic research, and its heavy icebreakers indispensable to expeditions."<sup>180</sup>

Although it is certainly reasonable to believe China is leveraging its impressive research resources to appeal to Arctic nations, the Chinese also have legitimate concerns about climate change. Chinese climate research at the poles primarily focuses on how environmental changes could impact China's domestic agricultural industry.<sup>181</sup> The Chinese represent 22 percent of the human population, but only possess 7 percent of global arable land thereby making China heavily dependent on its limited agricultural base, and vulnerable to climate change effects that reduce their agricultural output.<sup>182</sup> Tang Huajun, deputy dean of the Chinese Academy of Agricultural Sciences, has said that climate change, arable land loss, and water shortages could reduce China's grain

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<sup>177</sup>Magdalena Tomasik, "The 5th Chinese National Arctic Research Expedition " The Arctic Portal, last accessed 1 March 2013, <http://arcticportal.org/features/805-chinare5>.

<sup>178</sup>Connie Myers, "China's Second Polar Expedition Icebreaker to be Built," Clarity Digital Group LLC, last modified 2 August 2012, <http://www.examiner.com/article/china-s-second-polar-expedition-icebreaker-to-be-built>.

<sup>179</sup>Mark Halper, "China Mulls Nuclear Ships for Polar Routes," CBS Interactive Inc., last modified 22 February 2013, <http://www.smartplanet.com/blog/bulletin/china-mulls-nuclear-ships-for-polar-routes/13457>.

<sup>180</sup>Rosenthal, *China Muscles in on Arctic Resource Race*, 1.

<sup>181</sup>Jakobson, *China Prepares for an Ice-Free Arctic*, 6.

<sup>182</sup>Shilong Piao et al., "The Impacts of Climate Change on Water Resources and Agriculture in China," *Nature* 467, no. 7311 (2010): 42.

production up to 20 percent by 2050, which would obviously be a large reduction for the world's largest grain producer.<sup>183</sup>

The Chinese have repeatedly cited their right to conduct Arctic research as guaranteed under the provisions of the UNCLOS while emphasizing their focus on climate change and oceanic research.<sup>184</sup> Thus, while cynics can be concerned that China is luring Arctic nations into a false sense of security with discussions about altruistic research priorities, one could alternatively argue China doesn't need Arctic nations' support to continue developing this supposed hidden strategy. Moreover, in relative terms, China has not made the Arctic its number one priority. Certainly, China is extremely active in the northern polar region, however, Antarctica remains China's priority in the field of polar research (four times more research expeditions have occurred in Antarctica versus the Arctic), and polar research funding still only represents approximately 0.1 percent of all government research funding.<sup>185</sup> As well, China does not initiate bilateral Arctic dialogue with other countries; it only entertains academic exchanges, and most discussions are limited to those purely of a scientific nature.<sup>186</sup>

Clearly, China wants to be in the Arctic, and they wish to be accepted as an influential voice among the Arctic community. Fueling China's rise on the international stage is its unparalleled economic growth. The Chinese have an eye on the Arctic due to their growing stature and sense of global responsibility, but equally important, the Arctic

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<sup>183</sup>"Climate Change Threatens China's Crops," China.org.cn, last modified 9 November 2011, [http://china.org.cn/environment/2011-11/09/content\\_23862140.htm](http://china.org.cn/environment/2011-11/09/content_23862140.htm).

<sup>184</sup>Chircop, *The Emergence of China as a Polar-Capable State*, 14.

<sup>185</sup>Jakobson and Jingchao Peng, *China's Arctic Aspirations*, 19.

<sup>186</sup>*Ibid.*, 20.

represents new economic growth potential.<sup>187</sup> As China spurs domestic growth, they will require more resources to supply their industries, and as they expand their international trade agreements, they are keen to exploit better shipping routes.

## Summary

As a nascent global power and an established economic phenomenon, China has developed a significant interest in the Arctic. China's climb within the ranks of the world's strongest countries is consistent with a planned ideological shift over 30 years ago when China ushered in a new economic vision. China's concentration on economic development is done in the shadow of their adherence to the Five Principles of Peaceful Coexistence and a desire for prosperous and harmonious relations with the global community. The absence of a formal Arctic policy, however, has created an opportunity for Chinese academics and military personnel to recommend aggressive action to secure a prominent Chinese role in the Arctic. Thus, while China continues to wield an effective soft power approach as it develops a formal Arctic position, conflicting messages from scholars and some government officials, combined with apprehension over China's growing wealth and power, leads several Western observers to question China's Arctic intentions.

Even though they have not published an official policy on Arctic affairs, China clearly has Arctic intentions. China has a strong desire to carry a respected voice of influence in polar issues. China's diplomatic ties have been strengthened recently through

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<sup>187</sup>Man, *China Vies for Seat at Council on Arctic Resources and Trade Routes*.

concerted efforts to engage Nordic countries through state visits, direct foreign investment, economic development, and discussions on international shipping through the Arctic. China's status in polar research is difficult to match owing to almost 30 years of scientific expeditions and polar study. China is a UN Security Council member, a signatory to UNCLOS and a member of the IMO, but no matter how they package it, China is not an Arctic state. Nonetheless, China has been a good neighbour and conscientious contributor to the Arctic community, it wants to be welcomed into the Arctic Council as a permanent observer, and support is mounting within the Arctic forum to come to a favourable decision in 2013. In the meantime, Beijing is planning to conduct three more Arctic expeditions and launch another operational icebreaker by 2015, therefore, it is clear China has a long view on the Arctic.

Current Arctic resource development and trans-Arctic commercial shipping are relatively small-scale operations wrought with technological and economic challenges, but the potential for wealth and strategic routes through the Arctic to foreign markets is very appealing to China's growth plan. China has a keen interest to shape the political agenda and legal basis for future Arctic activities, so that it can derive maximum benefit from the strategic region.<sup>188</sup> Although China's intent in the Arctic remains unstated, ostensibly it is no different than that of any other global power with strategic interests beyond their own geographic region.

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<sup>188</sup>Jakobson, *China Prepares for an Ice-Free Arctic*, 6.



## CHAPTER 5: CANADA IN THE ARCTIC

Canada and China are both extremely interested in the Arctic. China wants greater Arctic influence in order to favourably influence decisions that will expand their economic base and demonstrate international power consistent with their rising global stature. Canada's interests are no less grandiose. The Arctic is Canada's backyard, and its wintery characteristics have become synonymous with Canada's identity as the Great White North. Canada is interested in Arctic development for its vast natural resource potential, but its ultimate motives are more domestically focused. When Canada pushes an Arctic agenda, it does so provide governance to its northern citizens, develop northern communities, and enforce legislation that offers environmental protectionism for a fragile ecosystem. Secondly, maritime control of its coastlines is an inherent responsibility for Canada if it hopes to exert sole sovereignty over the Arctic Archipelago, and provide security for Canadian citizens. As conveyed in in a 2010 NATO report, Canada does not perceive there to be a conventional military threat in the Arctic,<sup>189</sup> however, within the context of its national security and North American defence, Canada has an obligation to secure its own borders, prevent illegal smuggling, and deter transnational crime.

This chapter will demonstrate that Canada's Arctic interests are rooted in the promotion of Canadian sovereignty and security, Canadian Arctic governance, northern community development, environmental protection, and contribution to the defence of

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<sup>189</sup>North Atlantic Treaty Organization, 213 DSCTC 10 E rev 1, *Security at the Top of the World: Is there a NATO Role in the High North?* (Brussels: NATO Parliamentary Assembly, 2010), <http://www.nato-pa.int/Default.asp?SHORTCUT=2082>.

North America. As a non-Arctic state, China's sole interest in the Arctic is related to the benefits it can garner from the region. Conversely, as an Arctic coastal state, Canada's northern fortunes are inextricably linked to responsible northern management, accountable governance, and the effective allocation of resources to protect Canadian interests in Arctic matters.

### **Canada's Arctic Origins**

The Canadian Arctic Archipelago is a magnificent landmass. Canada's Arctic comprises 94 larger islands (>130 sq. km.) and 36,469 smaller islands totaling 1.4 million sq. km in area.<sup>190</sup> Remarkably, Canada's Far North contains six of the world's largest 30 islands.<sup>191</sup> Baffin Island, the biggest of the Canadian Arctic islands and fifth largest in the world, has more landmass than the United Kingdom.<sup>192</sup> While the geographic area itself is quite large, the population of the Canadian Arctic is relatively small, scattered, and predominantly composed of aboriginal First Nations.

The Dominion of Canada gained title over the North American Arctic through a series of transfers of title from Britain in 1870 and 1880, and through a subsequent proclamation in 1897 claiming the Arctic Archipelago.<sup>193</sup> From 1897 until today, Canadian claims on Arctic sovereignty have been based on a mixture of legal strategies

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<sup>190</sup>M. J. Dunbar and Peter Adams, "Arctic Archipelago," *The Canadian Encyclopaedia*, last accessed 14 March 2013, <http://www.thecanadianencyclopedia.com/articles/arctic-archipelago>.

<sup>191</sup>*Ibid.*

<sup>192</sup>*Ibid.*

<sup>193</sup>Guy Killaby, "'Great Game in a Cold Climate': Canada's Arctic Sovereignty in Question," *Canadian Military Journal* (Winter 2005-2006): 33.

culminating in Canada's claim of straight baselines under UNCLOS.<sup>194</sup> According to an informational briefing to members of Parliament by the Parliamentary Information and Research Service of the Library of Parliament in Canada, Canadian sovereignty in the Arctic is legally based on a combination of cession, occupation, and self-determination.<sup>195</sup> The formal transfer of the Arctic territories from the United Kingdom to Canada through Order in Council is a foundation of the Canadian claim, but the subsequent occupation of the Canadian north by First Nations has retained and strengthened Canada's sovereign rights. A series of Arctic expeditions in the early 20<sup>th</sup> century by A.P. Low and Captain J.E. Bernier, and the establishment of several Royal Canadian Mounted Police (RCMP) stations through the 1920s helped Canada secure its Arctic claim.<sup>196</sup>

In their role as members of the Canadian Armed Forces (CAF) Reserve component, the Canadian Rangers have patrolled the North for decades. Since 1947, the Canadian Rangers have successfully carried out their mission to "provide lightly equipped, self-sufficient, mobile forces in support of the [CAF]'s sovereignty and domestic operation tasks in Canada" by remaining on the lookout and reporting unusual activity or sightings, collecting significant data and providing it to the CAF, and conducting surveillance and sovereignty patrols.<sup>197</sup> Complementing the Rangers northern

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<sup>194</sup>*Ibid.*, 34.

<sup>195</sup>François Côté and Robert Dufresne, *The Arctic: Canada's Legal Claims* (Ottawa: Library of Parliament, 2008), 1.

<sup>196</sup>W. R. Morrison, "Arctic Sovereignty," *The Canadian Encyclopedia*, last accessed 14 March 2013, <http://www.thecanadianencyclopedia.com/articles/arctic-sovereignty>.

<sup>197</sup>"Canadian Rangers," Department of National Defence, last modified 31 May 2012, <http://www.army.forces.gc.ca/land-terre/cr-rc/index-eng.asp>.

presence are government and military personnel in various northern communities, such as such as Iqaluit, Cambridge Bay, Resolute, and Canadian Forces Station Alert.<sup>198</sup>

Most importantly, Canada's Arctic sovereignty claim is supported by the Inuit that have lived in the high Arctic for millennia and, through self-determination, have subscribed to the governance of Canadian institutions. Thus, as Canada asserts sovereignty over its Arctic territory, it is the link to its aboriginal citizens that solidifies Canada's claim and motivates its Arctic development aspirations.

### **Canada's Arctic Strategy**

A renewed Arctic priority for the Government of Canada is not an uncommon theme. Since the early 1900s, short and intense interest in Canada's Arctic policies has been common when Canada's claim to the North was questioned or outright challenged. After a successful push to establish administrative control through RCMP stations and mail delivery in northern Canadian outposts in the 1920s, and a controversial program of relocating Inuit communities further North to substantiate sovereignty claims in the 1950s,<sup>199</sup> a Progressive Conservative party initiative under the leadership of John Diefenbaker was summarized in a speech in Winnipeg in February 1958:

Sir John A. Macdonald...opened the West. He saw Canada from East to West. I see a new Canada - a Canada of the North...As far as the Arctic is concerned...[w]e intend to carry out the legislative programme of Arctic research, to develop Arctic routes, to develop those vast hidden resources the last few years have revealed. Plans to improve the St. Lawrence and

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<sup>198</sup>Peter Adams and Greg H. R. Henry, "Arctic Archipelago," The Canadian Encyclopedia, last accessed 14 March 2013, <http://www.thecanadianencyclopedia.com/articles/arctic-archipelago>.

<sup>199</sup>"Inuit Get Federal Apology for Forced Relocation," CBC News, last modified 18 August 2010, <http://www.cbc.ca/news/canada/north/story/2010/08/18/apology-inuit-relocation.html>.

the Hudson Bay route. Plans to increase self-government in the Yukon and Northwest Territories.<sup>200</sup>

Diefenbaker's Northern Vision policy was ultimately abandoned in late 1962 as a new mix of domestic and social issues, and international developments conspired to undermine Canadian public support for the Diefenbaker government. Although Diefenbaker's plan was noble, it was a tall order and would require more than one mandate to enact. Unfortunately, before the idea could take root, southern Canada's attention turned towards international affairs and political priorities other than northern development.<sup>201</sup>

Through the 1960s, 1970s, and 1980s, the Arctic was a primary theatre in the Cold War. Although sovereignty insults by the U.S.-flagged icebreakers SS Manhattan in 1969 and 1970, and the United States Coast Guard icebreaker Polar Sea in 1985 were somewhat stirring, they never amounted to a significant Arctic policy change by the Government. Considered to be more of a media sensation than a true assault to Canadian sovereignty, the 1985 Polar Sea incident did initiate one intriguing agreement. In 1988, "the political fallout over what was considered the most direct challenge to Canada's sovereignty in the Arctic led to the signing of the Arctic Co-operation Agreement ... by Prime Minister Brian Mulroney and U.S. President Ronald Reagan."<sup>202</sup> The Arctic Co-operation Agreement states that the U.S. will not send icebreakers into waters claimed by

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<sup>200</sup>Michael Byers, "Who Owns the Arctic? John Diefenbaker's Northern Vision," last accessed 15 March 2013, <http://byers.typepad.com/arctic/2009/03/john-diefenbakers-northern-vision.html>.

<sup>201</sup>Philip Isard, "Northern Vision: Northern Development during the Diefenbaker Era" (Master of Arts in History, University of Waterloo), 3-4.

<sup>202</sup>"CBC News in Depth: Northwest Passage the Arctic Grail," CBC News, last modified 8 August 2006, <http://www.cbc.ca/news/background/northwest-passage/>.

Canada to be internal without Canada's consent.<sup>203</sup> Of note, the agreement says nothing of U.S. warships, submarines or other non-icebreaking ships, however, the bilateral Arctic Co-operation Agreement remains an interesting footnote to the Arctic development of the 1980s, and is a milestone in the debate between Canada and the U.S. on the status of the Northwest Passage.

In the wake of the Polar Sea controversy, the Canadian Government restated its intent to exercise full sovereignty over the Arctic Archipelago's waters and territory and claimed straight baselines around the entire Canadian Arctic Archipelago. Canada's Parliament also drafted and passed the *Arctic Waters Pollution Prevention Act* decreeing Canadian environmental protective regulations up to 100 nautical miles from Canadian shores.<sup>204</sup> In the 1987 White Paper, Canada's Progressive Conservative party decided to build 10-12 nuclear submarines that could be used in the Canadian North to exercise security and sovereignty, but the reality of the costs associated with such an ambitious program cursed the plan. Regardless, in a consistently Canadian fashion, short-term interest in the Arctic waned in the harsh light of fiscal realities. Plans for additional aircraft surveillance and increased maritime visits from naval and coast guard assets also dissipated. The 1990s were characterized by substantial cuts for the CAF, and although

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<sup>203</sup> Agreement Between the Government of Canada and the Government of the United States of America on Arctic Cooperation, Jan. 11, 1988, E101701 - CTS 1988 No. 29, <http://www.treaty-accord.gc.ca/text-texte.aspx?id=101701>.

<sup>204</sup> Guy Killaby, "'Great Game in a Cold Climate': Canada's Arctic Sovereignty in Question," *Canadian Military Journal* 6, no. 4 (Winter 2005/2006): 35-36.

the Canadian Ranger Reserve was grown, it was a lonely Arctic initiative among otherwise austere budgets.<sup>205</sup>

Contrary to the effects of oft-promised, big-ticket Arctic expenditures over the last four decades, a relatively inexpensive initiative from the 1990s may prove to be Canada's biggest payoff in international northern affairs. In September 1996, the Arctic Council was created with the signing of the *Ottawa Declaration* due in no small part to the efforts of Canada. Although the Arctic Council was an evolution of the Arctic Environmental Protection Strategy (AEPS), it had a broader mandate than that borne by the AEPS. Whereas the AEPS was focused on co-operative environmental initiatives, the Arctic Council was intended to:

...provide a means for promoting cooperation, coordination and interaction among the Arctic States, with the involvement of the Arctic indigenous communities and other Arctic inhabitants on common [A]rctic issues, in particular issues of sustainable development and environmental protection in the Arctic.<sup>206</sup>

The inclusion of "sustainable development" in the mandate touches on all manner of economic interests.

In consideration of its role in establishing the Arctic Council, Canada was the first nation to chair the forum. While the Arctic Council's mandate includes economic development and environmental protection, a condition for American participation was that military affairs would be outside the scope of the forum. The Ottawa Declaration explicitly states, "The Arctic Council should not deal

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<sup>205</sup>Rob Huebert, "Renaissance in Canadian Arctic Security?" *Canadian Military Journal* 6, no. 4 (Winter 2005/2006): 22.

<sup>206</sup>"Declaration on the Establishment of the Arctic Council (Ottawa, 1996)," last accessed 25 March 2013, <http://www.international.gc.ca/polar-polaire/ottdec-decott.aspx?view=d>.

with matters related to military security.”<sup>207</sup> Secondly, the body’s decisions are non-binding,<sup>208</sup> which means that decisions of the Arctic Council carry less weight in international circles. Nevertheless, Canada’s leadership in establishing the Arctic Council has helped mitigate its failure to implement its own domestic Arctic policies for so long.

There is no question that the Arctic Council’s influence is growing. Significant interest from China, South Korea, the European Union, and other non-Arctic nations, combined with a renewed American interest in the Arctic Council (as a discussion forum), have given the council a central role in Arctic affairs. The council’s maturation is timely as the Arctic settles into the global consciousness as a strategic issue. While attending an Arctic Council meeting in May 2011, U.S. Secretary of State Clinton made a point to say that the Arctic Council “has established itself as the region’s preeminent intergovernmental body, and the United States is committed to this forum.”<sup>209</sup> The American view is comparable to statements made by Chinese and Swedish officials, highlighting the importance Canada’s initiative has had in international Arctic governance.

### **The Harper Government**

It is with consideration of Canada’s less-than-illustrious past of implementing coherent domestic Arctic policies, and its relative success in progressing Arctic

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<sup>207</sup>*Ibid.*

<sup>208</sup>Lasserre, *China and the Arctic: Threat Or Cooperation Potential for Canada?*, 5.

<sup>209</sup>“Remarks with Danish Foreign Minister Lene Espersen After their Meeting,” The Office of Website Management, Bureau of Public Affairs, last modified 12 May 2011, <http://www.state.gov/secretary/rm/2011/05/163235.htm>.



governance as an international issue that the Canadian government's updated plans to harness the power of the North are discussed. From the outset of his election campaign, Stephen Harper promised to unite policy and good governance with a tangible investment in hardware and demonstrable sovereignty action. In 2006, PM Harper promised to increase Canadian northern presence and monitoring through heavy icebreakers and a remote underwater sensing network. A northern deep water port at Nanisivik, an Arctic training center in Resolute Bay, and Arctic/Offshore Patrol Ships (AOPS) were cited as additional measures to strengthen Canadian sovereignty in the North.<sup>210</sup> Consistent with the prevailing mood of the last decade, both the Liberals (under Paul Martin) and the new Conservative Party touted an increased focus on the Arctic as part of their mid-2000s election platforms. Post-election in 2007, PM Harper said, "Canada has a choice when it comes to our sovereignty over the Arctic. We either use it or lose it and make no mistake this government intends to use it because Canada's Arctic is central to our national identity and our future."<sup>211</sup>

In May 2008, PM Harper unveiled the *Canada First Defence Strategy*, which identified a clear military role in maintaining Canadian Arctic sovereignty and security. According to the document, "[T]he military will play an increasingly vital role in demonstrating a visible Canadian presence in this potentially resource-rich region, and in helping other government agencies such as the Coast Guard respond to any threats that may arise."<sup>212</sup>

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<sup>210</sup>Myles Higgins, "The Politics of Arctic Sovereignty" The Independent.ca, last modified 15 August 2011, <http://theindependent.ca/2011/08/15/the-politics-of-arctic-sovereignty/>.

<sup>211</sup>*Ibid.*

<sup>212</sup>Canada, *Canada First Defence Strategy* (Ottawa: Canada Communication Group, 2008), 8.

In July 2009, the government released a document and website touting *Canada's Northern Strategy*. This was a communication detailing Canada's Northern Strategy and "its four pillars of exercising Canada's Arctic sovereignty, protecting the North's environmental heritage, promoting social and economic development, and improving and devolving northern governance."<sup>213</sup> Lastly, in August 2010 PM Harper's government articulated a comprehensive Statement on Canada's Arctic Foreign Policy. The Statement on Canada's Arctic Foreign Policy identified four areas of priority for the Canada. Consistent with the message in the *Canada First Defence Strategy* and *Canada's Northern Strategy*, Canada's statement on Arctic foreign policy document identified sovereignty, the environment, social and economic development, and governance as fundamental pillars of Canada's northern plans. In addition to the tenets of the Northern Strategy, Canada is also responsible for northern security.

### **Arctic Sovereignty**

Canada's territorial claims in the North are secure and respected. Through a combination of cessation and occupation, Canada has maintained a sovereign hold of the Arctic Archipelago landmass for a long time. Conversely, the status of waters in the North and the internal waterways of the archipelago are less definitive. As a signatory to the UNCLOS, Canada is intent upon working within international law to protect the Canadian North, however, the Harper government is also keen to back up its sovereignty

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<sup>213</sup>Canada, "Federal Government's Northern Strategy Delivers for all Canadians - Ministers Highlight Progress Towards Canada's Northern Vision," Aboriginal Affairs and Northern Development Canada, last modified 13 February 2013, <http://www.aadnc-aandc.gc.ca/aiarch/mr/nr/m-a2009/nr000000417-eng.asp>.

pillar with a robust monitoring capability and federal presence. In addition, the government is manoeuvring to create more responsive capabilities to act in the Arctic.

A new polar icebreaker, envisioned to be the flagship of the Canadian fleet, will be built and launched in 2017 to replace the retiring CCGS Louis S. St-Laurent.<sup>214</sup> The upcoming AOPS will provide the Royal Canadian Navy (RCN) with a fleet of Polar Class 5 vessels that can operate in 1.5 m thick, first-year ice.<sup>215</sup> While these vessels are an opportunity to establish a stronger presence in the water, the forthcoming RADARSAT constellation of satellites will provide the government a critical ability to monitor traffic in the Arctic.

In January 2013, MacDonald Dettwiler and Associates Ltd. was awarded a \$706 million contract to develop the RADARSAT Constellation project.<sup>216</sup> Among other scientific uses, the addition of three satellites to RADARSAT-1 and RADARSAT-2 would give Canada a unique capability to monitor the North and enforce sovereignty over Canadian land and maritime territory. The new satellites will offer daily access to 95 percent of the world and complete coverage of Canada once per day. Most importantly for Arctic sovereignty purposes, the constellation will provide several passes per day over Canada's high Arctic and the Northwest Passage.<sup>217</sup>

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<sup>214</sup>"New Arctic Icebreaker to be Named After Diefenbaker," CBC News, last modified 28 August 2008, <http://www.cbc.ca/news/canada/north/story/2008/08/28/new-icebreaker.html>.

<sup>215</sup>Doug Thomas, "Warship Developments: Arctic/Offshore Patrol Ships," *Canadian Naval Review* 3, no. 3 (Fall 2007): 36.

<sup>216</sup>"Contract Gives MacDonald Dettwiler a \$706-Million Arctic View," The Globe and Mail Inc., last modified 11 January 2013, <http://www.theglobeandmail.com/report-on-business/international-business/european-business/contract-gives-macdonald-dettwiler-a-706-million-arctic-view/article7138167/>.

<sup>217</sup>"RADARSAT Constellation," Canadian Space Agency, last modified 15 January 2013, <http://www.asc-csa.gc.ca/eng/satellites/radarsat/Default.asp>.

The Northwest Passage is one example of the threat to Canada in the North. Although the sovereignty of the passage is not in dispute, the U.S., EU, and Russia contend the Northwest Passage is an international strait.<sup>218</sup> As an international strait, ships can exercise the right of transit passage through Canadian waters under the provisions of UNCLOS as they travel between the Beaufort Sea and the North Atlantic Ocean. Relatively speaking, the Northwest Passage is poorly charted, characterized by random chunks of floating sea ice (even in the summer), and has limited maritime infrastructure and supporting services. Even though the melting ice is portended as an opportunity for shipping and tourism, the Arctic environment, poor charting, and the lack of support facilities entail significant risk to transiting ships and the Canadian maritime environment. If ships are poorly constructed, crewed or provisioned, maritime accidents in the Northwest Passage could have catastrophic consequences for Canada's North. Thus, a commitment to replace the coast guard's biggest ship, add capability to the RCN fleet, launch additional RADARSAT satellites, and grow the Canadian Rangers Reserve are necessary expenditures to support and defend Canadian sovereignty while building our ability to monitor, protect, and patrol the Arctic. Clearly, these initiatives serve as an effective show of force, but they are equally adept at protecting Canada's other Northern Strategy pillars. By investing in measures to ensure Canadian sovereignty and security, Canada strives to improve the welfare its citizens through environmental protection, development, and governance.

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<sup>218</sup>Bernard Simon, "Canada Boosts Claim to Northwest Passage," The Financial Times Ltd., last modified 11 May 2011, <http://www.ft.com/cms/s/0/9dbd8244-7b35-11e0-9b06-00144feabdc0.html#axzz2OmptejVm>.

## Environmental protection

Canada's greatest claim to the North comes from the inhabitants that have lived on the land and sea ice within the Canadian Arctic Archipelago for millennia. For the aboriginal people of the Arctic, the environment is the most important piece of their culture and heritage. Damage to the northern environment cannot only destroy the fragile maritime ecosystem, but the First Nations people that depend upon it for survival. Canada's multi-tiered approach to the pillar of environmental protectionism includes scientific and regulatory action.

As much as climate change is a global phenomenon that will affect the entire world, its effects are going to manifest immediately in Canada. As such, governmental investment in scientific research assists Canada to make informed decisions about Arctic policy, and allows Canada to contribute to the international climate change investigation.

The federal government funds several research endeavours throughout the Arctic. The location of the Churchill Northern Studies Centre gives it access to the tundra, northern boreal forest and Hudson Bay waters, which are home to polar bears, beluga whales and shorebirds.<sup>219</sup> Near Eureka, Nunavut, Canada's northernmost permanent research station, the Polar Environment Atmospheric Research Laboratory (PEARL) has operated since 2005. During the 2007-2008 International Polar Year (IPY), Canada invested \$156 million into research.<sup>220</sup> Federal funding for ArcticNet, a northern research program run by the Université Laval, was recently funded for another seven years with

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<sup>219</sup>Sharon Oosthoek and Nick Walker, "North by Nature," Canadian Geographic, (Dec 2012), [http://www.canadiangeographic.ca/magazine/dec12/arctic\\_research.asp](http://www.canadiangeographic.ca/magazine/dec12/arctic_research.asp).

<sup>220</sup>*Ibid.*

\$67.3 million.<sup>221</sup> In August 2012, the Canadian government announced \$142.4 million to build and operate a new year-round, multidisciplinary Canadian High Arctic Research Station (CHARS), in Cambridge Bay, Nunavut. Canada also committed \$46.2 million over six years to run the science and technology research program.<sup>222</sup> Northern environmental decisions grounded in scientific research are the best way to responsibly guide strategic decisions about the Arctic region, and a continued investment in Arctic study aids that philosophy.

In addition to the scientific aspect of environmentalism, Canada has a long history of introducing regulation to protect the Arctic. In 1970, Canada introduced the *Arctic Waters Pollution Prevention Act* (AWPPA), which laid out rules and regulations “ensuring navigation in Arctic waters is conducted to preserve and protect the sensitive northern ecosystem.”<sup>223</sup> Canada has also passed other regulations to control shipping in the Canadian Arctic, and though the following list is not exhaustive, some examples include the Arctic Shipping Pollution Prevention Regulations, Shipping Safety Control Zones Order, Arctic Waters Pollution Prevention Regulations, Navigation Safety Regulations, Ship Station (Radio) Regulations, and Charts and Nautical Publications Regulations, 1995.<sup>224</sup> Per article 234 of UNCLOS, in August 2009, the Canadian federal government enacted legislation to extend the AWPPA from 100 nautical miles to 200

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<sup>221</sup>*Ibid.*

<sup>222</sup>*Ibid.*

<sup>223</sup>“Chapter 2 Regulations and Guidelines,” Department of Fisheries and Oceans - Canadian Coast Guard, last modified 29 August 2012, <http://www.ccg-gcc.gc.ca/Icebreaking/Ice-Navigation-Canadian-Waters/Regulations-and-Guidelines#2.1>.

<sup>224</sup>*Ibid.*

nautical miles off Canada's northern coast.<sup>225</sup> According to UNCLOS article 234, coastal states of ice-covered waters are allowed to define and impose non-discriminatory shipping regulations that protect against pollution within their EEZ. In June 2010, the Canadian government announced that adherence to reporting under the Northern Canada Vessel Traffic Services Zone (NORDREG) was no longer optional, and that all vessels would have to report specific details before entering, while transiting, and after leaving the NORDREG Zone.<sup>226</sup> Lastly, in consort with the Arctic Council Ministerial, Canada supports the concept of binding polar regulations, and is working with the International Maritime Organization (IMO) to develop the code.<sup>227</sup>

Clearly, one of Canada's main objectives in passing so many regulations is to protect the environmental integrity of the North, however, these regulations cannot be enforced without the ability to monitor the North and interdict vessels for inspection. Escorting vessels through Canadian Arctic waters, including the Northwest Passage, requires a fleet of ice-capable ships and a space capability to cover the expansive Canadian Arctic. Although there is debate over how popular the Northwest Passage will become due to more favourable ice conditions on the Northern Sea Route, it is reasonable to assume that, as a minimum, tourism and development projects in Canada's Arctic will increase maritime traffic thereby exposing Canada to greater environmental risks and

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<sup>225</sup>Canada, *Statement on Canada's Arctic Foreign Policy: Exercising Sovereignty and Promoting Canada's Northern Strategy*, 16.

<sup>226</sup>"Government of Canada Takes Action to Protect Canadian Arctic Waters," Transport Canada, last modified 26 September 2011, <http://www.tc.gc.ca/eng/mediaroom/releases-2010-h078e-6019.htm>.

<sup>227</sup>Canada, *Statement on Canada's Arctic Foreign Policy: Exercising Sovereignty and Promoting Canada's Northern Strategy*, 14.

probability of catastrophe. Canada must ensure it has the ability to act as a custodian for the Arctic region.

### **Social and Economic Development**

The third pillar of Canada's Northern Strategy is social and economic development. According to the government's Arctic policy, the minerals, hydrocarbons, and fisheries are resources that can sustain economic activity and prosperity in the North for generations.<sup>228</sup> In Nunavut alone, diamonds, gold, and iron ore offer riches to the territory and its people. Between 1995 and 2005, Canada's diamond mines yielded \$12 billion in sales, and the Meadowbank gold mine in Rankin Inlet has been attributed with adding 12 percent to Nunavut's GDP.<sup>229</sup>

According to a statement by the Prime Minister's Office, in August 2012 there were 11 resource projects under environmental assessment, representing \$8 billion in investment and 3,000 jobs.<sup>230</sup> Natural Resources Canada has estimated there are 1,200 Aboriginal communities within 200 kilometers of Northern mineral and/or metals activities. Additionally, up to 400 communities are less than 50 kilometers from one of Canada's primary northern mines.<sup>231</sup> Considering that more than 80 percent of Nunavut's

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<sup>228</sup>*Ibid.*, 11.

<sup>229</sup>Cecilia Jamasmie, "Nunavut to make Canada a Diamond Powerhouse," MINING.com, last modified 24 November 2012, <http://www.mining.com/nunavut-turns-canada-into-emerging-diamond-mining-powerhouse-67637/>.

<sup>230</sup>Stephanie Levitz, "Harper in the Arctic: PM's Golden Touch Wears Off with Mixed Record on Northern Promises " TheHuffingtonPost.com, Inc., last modified 21 August 2012, [http://www.huffingtonpost.ca/2012/08/20/harper-arctic-trip-2012\\_n\\_1809142.html#slide=1407993](http://www.huffingtonpost.ca/2012/08/20/harper-arctic-trip-2012_n_1809142.html#slide=1407993).

<sup>231</sup>Tonina Simeone, *The Arctic: Northern Aboriginal Peoples* (Ottawa: Library of Parliament, 2008), 5.



population is between 20 and 29 years old,<sup>232</sup> and that northern aboriginal communities typically have low literacy rates and poor education levels, many northerners will require special assistance to develop skillsets enabling them to gain employment with resource development projects.<sup>233</sup> Nonetheless, the federal government believes that prudent development of Canada's northern resources and the work of the Canadian Northern Economic Development Agency will create the jobs, skills, housing, and infrastructure needed by the communities of the Arctic to profit from local natural resources.<sup>234</sup>

Capitalizing on the extraction of resources is one significant task, but getting them to market is another chore. To facilitate trade in the North, Canada has established trading ties with the European Free Trade Association, and is looking to other Asian and Eastern European countries to expand trade opportunities.<sup>235</sup> The export of resources from the Canadian Arctic to East Europe could be greatly enhanced by maximizing use of the Arctic Bridge Route from Churchill to Murmansk. Correspondingly, more favourable ice conditions will make the shipment of resources out of the Arctic more economically viable, while increasing the level of destination shipping in the North which will improve access and services to northern communities.

On the other hand, trans-Arctic shipping, which is being touted by some parties as a valuable game changer for international shipping companies, would have little direct benefit to Canada, since it already has major ports on the Atlantic and Pacific coasts. If

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<sup>232</sup>*Aboriginal Peoples in Canada in 2006: Inuit, Métis and First Nations, 2006 Census, Catalogue no. 97-558-XIE* (Ottawa: Minister of Industry, 2006), 14.

<sup>233</sup>Simeone, *The Arctic: Northern Aboriginal Peoples*, 6.

<sup>234</sup>Canada, *Statement on Canada's Arctic Foreign Policy: Exercising Sovereignty and Promoting Canada's Northern Strategy*, 11.

<sup>235</sup>*Ibid.*, 15.

environmental conditions do solicit interest in trans-Arctic shipping through Canadian waters, Canada could take Russia's lead and recoup costs from infrastructure development through mandatory icebreaking and escort service fees. Such action would benefit shipping in support of the northern communities and resource extraction operations while simultaneously improving the government's ability to exercise sovereignty and enforce safety within Canadian internal waters.

### **Canadian Arctic Governance**

There are two aspects of governance at play in the Canadian Arctic. First, the Canadian federal government is in the process of devolving governance over the territories to territorial governments and First Nations members. Second, governance over the seabed in maritime zones extending up to 350 nautical miles from Canada's Arctic coastline are currently being substantiated under article 76 of the UNCLOS. Both initiatives are extremely important to the future of the Arctic, and are key components of Canadian stewardship of its North:

The Government of Canada is committed to providing Canadian Northerners with more control over their economic and political destiny. Canada is taking steps to endorse the United Nations Declaration on the Rights of Indigenous Peoples in a manner fully consistent with Canada's Constitution and laws.<sup>236</sup>

By devolving more governance to Arctic residents in a manner consistent with the Canadian Constitution and laws, the Canadian Inuit and other aboriginal peoples are no longer simply submitting to Canadian laws, but they are actively participating within it to

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<sup>236</sup>*Ibid.*, 22.

make the Canadian federation stronger. Empowering the territories is a key motive behind the strategy of the Canadian government. Canada has also been a staunch supporter of the role of indigenous organizations in the Arctic Council.

As a signatory to UNCLOS, Canada is fully committed to using international laws and treaties to govern Arctic maritime claims. Furthermore, the other Arctic nations have also shown a desire to handle Arctic issues and disputes in accordance with international law. During a conference among the five Arctic coastal states in May 2008, all five countries signed the Ilulissat Declaration declaring that the current framework for Arctic governance “was a solid foundation for responsible management.”<sup>237</sup>

As Canada implements its vision of Arctic governance, it is clear to see that the First Nations inhabitants of the Arctic will continue to play a key role. Being a foundation of Canada’s claims to Arctic sovereignty, the Inuit and aboriginal peoples of the North will continue to feature prominently in future Arctic governance through territorial and self-governance agreements and the participation in the Arctic Council.

### **Canadian Arctic Security**

By investing in an ability to exercise sovereignty over the Canadian Arctic, the Government of Canada enables environmental protectionism, development and governance. However, maintaining a sovereign presence over the Canadian North is also good for security. For years, the frozen Arctic has been a natural barrier protecting the *back door* to Canada and North America with its inhospitable environment and sheer

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<sup>237</sup>“The Ilulissat Declaration” (signed at the Arctic Ocean Conference, Ilulissat, Greenland, May 28, 2008), 1.

size. Although Canada has paid some lip service to northern surveillance in the past, it was a relatively weak effort in the light of today's threats and consequences to border insecurity. Unlike the Cold War, most of today's threats come from non-state actors, such as organized and transnational crime, terrorist cells, and illegal immigration.

In 2006, the North American Aerospace Defence (NORAD) Command's mandate was expanded to include maritime surveillance.<sup>238</sup> This bi-national agreement has become Canada's most important, long-running commitment to the U.S. on North American security. Referencing an American defence-in-depth approach, Dr. R.J. Sutherland, a prominent Canadian strategist in the 1960s, wrote, "It seems that the United States is bound to defend Canada from external aggression almost regardless of whether Canadians wish to be defended. We may call this the involuntary American guarantee."<sup>239</sup> Far from being a gift, however, this involuntary guarantee was considered conditional upon Canada defending its own borders. Dr. Sutherland recognized that the U.S. would ultimately do whatever was necessary to defend itself, and therefore, in order to defend Canada and ensure its strategic security and sovereignty, Canada also had to visibly and effectively tailor its foreign policy to ensure adequate contributions to the security of the U.S. It is reasonable to suggest that this concept continues in 2013. In order to defend Canadian sovereignty in the Arctic, Canada must actively demonstrate it defends its Arctic borders. Thus, Canadian interest in the Arctic can be directly tied to exercising security to counter any future U.S. sovereignty challenges.

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<sup>238</sup>"Norad to be Expanded to Include Maritime Surveillance," CBC News, last modified 20 February 2006, <http://www.cbc.ca/news/canada/story/2006/02/20/norad-060220.html>.

<sup>239</sup>R. J. Sutherland, "Canada's Long Term Strategic Situation," *International Journal* 17, no. 3 (Summer, 1962): 202.

Legitimate threats to Canadian northern security were shared with NATO and summarized in the report, *Security at the Top of the World: Is There a NATO Role in the High North?*:

Canada sees improved accessibility of the region leading to increased activity in several sectors, including maritime and air traffic, mining, tourism, and re-supply of remote outposts. Given the increased amount and diversity of traffic, the likelihood of an incident requiring search-and-rescue or environmental consequence management has increased, Canadian defence officials told the Sub-Committee. Canada is also concerned about the risk of increased involvement of organized crime, particularly in the trafficking of valuable gems (of which Canada is the fourth global producer). In security terms, Canada sees no conventional military threat in the Arctic. Even so, Canada is investing in additional capabilities and presence in the Arctic to meet new challenges, although defence officials insist this does not constitute any kind of “militarization”.<sup>240</sup>

Despite the lack of a conventional military threat in Canada’s North, a number of past security breaches illustrate that Canada must improve its Arctic surveillance and response capability. In 1999, the Chinese icebreaker, MV Xue Long, made an appearance in Canada’s port of Tuktoyaktuk, Northwest Territories, surprising officials even though it had overtly made the trek to Canada and had communicated its intentions to Canadian personnel beforehand.<sup>241</sup> Then in August 1999, Inuit fishermen witnessed a submarine rise from the waters of Cumberland Sound, near Pangnirtung, but the submarine disappeared before a CP-140 Aurora could arrive on scene to investigate.<sup>242</sup> Another submarine was sighted by hunters just off Baffin Island near the entrance to the

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<sup>240</sup>North Atlantic Treaty Organization, 213 DSCTC 10 E rev 1 - *Security at the Top of the World: Is there a NATO Role in the High North?*

<sup>241</sup>Mia Bennett, "Chinese Icebreaker Heads North while U.S. and Canada Sidelined," Foreign Policy Association, last modified 30 June 2010, <http://foreignpolicyblogs.com/2010/06/30/icebreakers/>.

<sup>242</sup>Colin Nickerson, "Melting Ice could Open Northwest Passage," Sun Sentinel, last modified 25 March 2000, [http://articles.sun-sentinel.com/2000-03-25/news/0003241290\\_1\\_pack-ice-canada-s-control-canadian-forces](http://articles.sun-sentinel.com/2000-03-25/news/0003241290_1_pack-ice-canada-s-control-canadian-forces).

Northwest Passage in August 2008, and of note, was only 10 to 15 kilometers away from an unexplained maritime explosion 10 days earlier.<sup>243</sup> Foreign nationals have tried to illegally enter Canada through the Arctic, as Romanian Florin Fodor attempted to do in August 2006, travelling by small boat from Greenland to Grise Fiord on Ellesmere Island.<sup>244</sup> Although these represent a few known examples, it is impossible to quantify how many other border violations have gone unnoticed. Canada's North is vast and sparsely populated, therefore it is incumbent on Canada to improve its efforts to monitor, protect, and patrol the Arctic border in the defence of Canadian sovereignty and security.

## Summary

Canada's enormous Arctic region comprises 40 percent of the nation's landmass, and its ice-covered waterways pose unique and formidable challenges to navigation and maritime control. This rugged and resource-rich land is a part of Canada's identity, and its inhabitants have lived off the lands and seas since time immemorial. The Government of Canada is duty-bound to exercise sovereignty over its northern territories and maritime zones while providing security for the whole of Canada. Existing in the shadow of a global superpower, Canada must also enforce border control and visibly contribute to the defence of North America.

The *Canada First* Defence Strategy, the Statement on Canada's Arctic Foreign Policy, and *Canada's Northern Strategy* each place a common importance on the Arctic

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<sup>243</sup>Steven Chase, "Military Scrambled Over Foreign Sub Sighting," The Globe and Mail Inc., last modified 10 April 2009, <http://www.theglobeandmail.com/news/national/military-scrambled-over-foreign-sub-sighting/article1150247/>.

<sup>244</sup>"Romanian Who Boated to High Arctic Fesses Up," CBC News, last modified 15 November 2006, <http://www.cbc.ca/news/canada/north/story/2006/11/14/grise-romanian.html>.

and northern affairs. Although Canada's past Arctic investments have been principally reactionary, and the governments' promises of northern development have gone largely unfulfilled, the Arctic remains a central theme in Canadian politics. As the ice recedes and the northern polar region achieves greater recognition as a strategic issue, prudent domestic policies are necessary for Canada to effectively manage its northern assets.

History has proven Canada will require foreign investment to develop natural resources in the Arctic, and responsible development of resources, in consultation with local government and aboriginal representatives, is key to raising the standard of living in northern communities. Scientific research and enforcement of Canadian protective regulations are necessary to protect the fragile northern ecosystem. Ultimately, good governance in Arctic affairs will require Canada to prioritize the pillars of its Northern Strategy.

Lastly, international co-operation and dialogue through the Arctic Council has immense value, but council membership and the lack of "defence challenges" for Canada's military in the Arctic,<sup>245</sup> do not relieve Canada of its need to monitor, patrol, protect, and respond to events in its northern territory. Capital investment in Canadian Arctic capabilities remains critical to defending Canada's interests. Considering their strategic value in realizing the Northern Strategy, construction of the new icebreaker and AOPS, and launch of the RADARSAT constellation will assist Canada to achieve its priorities of Arctic sovereignty, environmental protectionism, social and economic development, and governance.

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<sup>245</sup>Canada, *Statement on Canada's Arctic Foreign Policy: Exercising Sovereignty and Promoting Canada's Northern Strategy*, 8.

## **CHAPTER 6: SINO-CANADIAN CO-OPERATION IN THE ARCTIC**

The evolution of the Arctic into a global issue and the strategic economic benefits of Arctic regional development represent big opportunities for China and Canada. Despite differences between Canada and China's stated (and unstated) Arctic goals, their official policies could be complimentary. There is a broad band of potential co-operation that can enable both countries to achieve regional satisfaction.

As earlier discussed, China is primarily concerned with the betterment of its people. China's 12<sup>th</sup> Five Year Plan clearly identifies specific policies to improve the welfare of the citizens of China. The marked improvement in Chinese society has largely been achieved through economic development, trade, and foreign investment. Like any country, China must defend its own territory and its own international interests, however, it is reasonable to assume China is not going to go to war with NATO, Russia or the rest of the world in order to take control of something as difficult to retain as the Arctic, especially when they remain so dependent on the rest of the world for their economic prowess. China is very business-minded in its conduct within international forums, and should be engaged for additional co-operation.

Likewise, the Canadian government's Northern Strategy is largely focused on the improvement of northern peoples and communities. The history of Canada's northern promises and development strategies are proof that Canada is steered by the population living in the southern Canadian region. In the 2011 census, Canada's northern population



represented just 0.32 percent of the Canadian population as a whole,<sup>246</sup> and although northern development is often romanticized with associations to Canada's national identity, northern issues rarely permeate the general consciousness when deficit spending is a reality.

If administered by solid leadership in Ottawa, in consultation with the territories and aboriginal governments, co-operation with China on several Arctic-related matters could create significant benefit to both countries. Specific areas of co-operation and mutual benefit include direct foreign investment, bilateral trade, participatory governance through the Arctic Council, Arctic research and polar studies, and transoceanic shipping in ice-covered waters.

### **Direct Foreign Investment**

At the core of the issue, Canada has a relatively small population and a large land and maritime territory. Thus, the government has a relatively small financial base from which to internally and independently fund large-scale northern developments. Northern activity in the Arctic is very expensive. Even the CAF struggles to fund northern operations as these activities can cost five to seven times more than the same activities in southern Canada, according the army commander Lt.-Gen. Peter Devlin in 2013.<sup>247</sup> The

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<sup>246</sup>"Population and Dwelling Counts, for Canada, Provinces and Territories, Census Divisions, and Census Subdivisions (Municipalities), 2011 and 2006 Censuses," Statistics Canada, last accessed 2 April 2013, <http://www12.statcan.gc.ca/census-recensement/2011/dp-pd/hlt-fst/pd-pl/Table-Tableau.cfm?LANG=Eng&T=304&SR=1&S=3&O=A&RPP=10&CMA=0&PR=60>.

<sup>247</sup>David Pugliese, "Army to Scale Back Arctic Operations because of Budget Cuts," Postmedia Network Inc., last modified 3 March 2013, <http://www.ottawacitizen.com/news/Army+scale+back+Arctic+operations+because+budget+cuts/8042743/story.html>.

Northwest Territories government spends \$170 million a year on subsidies to northern residents, the Eastern Arctic has no roads and no ports, electricity generation facilities are at maximum capacity and are expensive to operate. Up to \$3 billion has been quoted to install fibre-optic lines along the Northwest Territories' Mackenzie Valley and build an all-season road from Inuvik to Tuktoyaktuk, connecting southern Canada with its Arctic coast.<sup>248</sup>

Canada has repeatedly demonstrated that it does not have the capital to develop its Arctic independently. If Canada is going to develop the north, it will require large amounts of direct foreign investment for infrastructure and resource extraction. Without selling off national control of strategic energy and mineral reserves, Canada should consider China to be a viable source of direct foreign investment and work to engage China in mutually beneficial development projects. Certainly, challenges exist in coordinating three levels of Canadian government, formalizing contractual agreements with China, completing environmental impact assessments, building the infrastructure, and balancing resource extraction with social development and skills training, however, the potential is real. Take for example, the years 2010 and 2011, when China invested \$16 billion in Canadian energy companies,<sup>249</sup> and 2012, when CNOOC's \$15.1 billion acquisition of Nexen, Inc. was approved.<sup>250</sup>

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<sup>248</sup>Bob Weber, "High Cost of Northern Living: Arctic Premiers Urge Feds to Invest in Infrastructure to Bring Down Costs," TheHuffingtonPost.com, Inc., last modified 27 June 2012, [http://www.huffingtonpost.ca/2012/06/27/northern-canada-high-cost-food-infastructure\\_n\\_1631181.html](http://www.huffingtonpost.ca/2012/06/27/northern-canada-high-cost-food-infastructure_n_1631181.html).

<sup>249</sup>"Canada in Energy Deals with China," China Mining Association, last modified 9 February 2012, <http://www.chinamining.org/News/2012-02-09/1328751130d54145.html>.

<sup>250</sup>Perkowski, *Canada Greenlights CNOOC's Purchase of Nexen*.

Canada must continue to develop its northern communities, and leveraging the natural resources of the Arctic represents the best opportunity to do so. Through strategic partnerships that amass foreign capital investment, Canada can effectively cooperate with many countries, including China, in resource extraction projects while concurrently funneling the dividends into Canada's northern communities.

### **Bilateral Trade**

Any resource development activities with China in the Canadian Arctic would likely include a mandate for a certain percentage of those raw materials to go directly to China. Regardless of this perceived constraint, Canada is largely a primary resource exporter and relatively small amounts of refining or manufacturing occur in Canada. Secondly, increased trade between Canada and Asia has been a stated objective of the Canadian government's economic strategy to diversify Canadian trade.<sup>251</sup> In 2011, trade between Canada and the U.S. totaled over \$681 billion<sup>252</sup> whereas trade with China, Canada's second-largest trading partner, was just \$50 billion.<sup>253</sup> During a tour of Asia by PM Harper in 2012, Chinese Premier Wen Jiabao said, "China is ready to expand imports of energy and resource products from Canada and enhance co-operation in clean and

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<sup>251</sup>John Ivison, "Ottawa Eyeing Full-Blown Free Trade Agreement with China," National Post, last modified 11 September 2012, <http://news.nationalpost.com/2012/09/11/ottawa-eyeing-full-blown-free-trade-agreement-with-china/>.

<sup>252</sup>"A Unique and Vital Relationship " Government of Canada, last modified 20 August 2012, [http://www.canadainternational.gc.ca/washington/bilateral\\_relations\\_bilaterales/welcome-bienvenue.aspx?lang=eng](http://www.canadainternational.gc.ca/washington/bilateral_relations_bilaterales/welcome-bienvenue.aspx?lang=eng).

<sup>253</sup>*Canada in Energy Deals with China.*

renewable energy, energy-saving, environmental protection, and the peaceful use of nuclear energy.”<sup>254</sup>

Currently, 97 percent of Canadian oil exports go to the U.S.<sup>255</sup> However, this bias is unlikely to continue as the U.S. implements a strategy to become more energy-efficient while simultaneously refining the technology necessary to harvest huge amounts of oil and gas trapped in shale. If the U.S. can safely extract the oil trapped in shale, it stands to become the top oil producer by 2017 and move one step closer to energy self-sufficiency by 2035.<sup>256</sup> Considering the Obama administration’s desire to gain energy independence, and the large degree to which Canada depends upon oilsands exports, it is in Canada’s interest to expand its export markets to Asia. Consistent with the Statement on Canada’s Arctic Foreign Policy, Canada fully intends to develop and market its Arctic oil and gas potential.<sup>257</sup> Canadian partnership with China in the Arctic to responsibly develop its hydrocarbon reserves is a logical extension of Canada’s economic and Arctic foreign policies, and the realities of shifting market conditions.

### **Arctic Council Governance**

As Canada prepares to regain chairmanship of the Arctic Council in May 2013, Canada should make a concerted effort to endorse China’s inclusion as a permanent observer in the Arctic Council. Enlarging the pool of permanent observers does not

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<sup>254</sup>Canada in Energy Deals with China.

<sup>255</sup>*Ibid.*

<sup>256</sup>Peg Mackey, "U.S. to Overtake Saudi as Top Oil Producer," Thomson Reuters, last modified 12 November 2012, <http://www.reuters.com/article/2012/11/12/us-ia-oil-report-idUSBRE8AB0IQ20121112>.

<sup>257</sup>Canada, *Statement on Canada’s Arctic Foreign Policy: Exercising Sovereignty and Promoting Canada’s Northern Strategy*, 12.

reduce Canada's (or any other Arctic nation's) sovereignty over its Arctic territory, since admittance to the council as an observer requires candidates to "Accept and support the objectives of the Arctic Council defined in the Ottawa declaration", "Recognize Arctic States' sovereignty, sovereign rights and jurisdiction in the Arctic", and "Recognize that an extensive legal framework applies to the Arctic Ocean including, notably, the Law of the Sea, and that this framework provides a solid foundation for responsible management of this ocean."<sup>258</sup> Including China enables them to more openly contribute to polar research, climate change initiatives, northern development, shipping proposals, and social development endeavours.

As chair of the Arctic Council for the next two years, Canada has an immense opportunity to influence the direction of the council in a meaningful and beneficial manner. Canada must recognize that the Arctic is a strategic region and non-Arctic states have a valid interest in the Arctic. By taking a strategic view of the Arctic and including other non-Arctic nations in northern affairs, Canada can cement its role as a global leader in Arctic matters. A strong and encompassing voice will enable Canada to influence decisions among rising global powers, such as China. Alternatively, as more nations appreciate the value of adding China as a permanent observer to the Arctic Council and Canada withholds, Canada risks the view that they are exclusionary and hostile towards Chinese Arctic involvement, which could ultimately discourage bilateral trade, investment opportunities, and co-operation. China's newfound status as a permanent observer in the Arctic Council would also enable Canada and the rest of the Arctic

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<sup>258</sup>Arctic Council, *Observers*.

Council to benefit directly from China's years of extensive polar research and Arctic study.

### **Polar Research**

China has invested untold effort and resources into Arctic research. China has one dedicated polar research icebreaking vessel, the Xue Long, and is building a second one to expand its scientific capabilities. China also exercises its rights to use the Svalbard Island for scientific endeavours at its Yellow River Station. Meanwhile, Canada also spends millions of dollars annually on Arctic research projects. The data collected and knowledge derived from these activities directly enhance our understanding of climate change and the Arctic environment. While the global effects of climate change affect China, they also impact Canada at home. Canada is one of the few nations to be exposed to both the direct and indirect effects of global climate change. Therefore, Canada should continue to engage China in maritime research by sharing data and research opportunities to further its own knowledge, and contribute to the international scope of understanding. Canada and China already manage a portfolio of Memorandums of Understanding (MOUs) and formal agreements concerning climate change, oceanography, marine pollution and environmental protection, however, other opportunities exist for expanded cooperation in the fields of "national parks, protected areas and environmental assessment and monitoring related to heavy oil developments."<sup>259</sup>

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<sup>259</sup>"Canada Signs Environmental Cooperation Agreement with China," Environment Canada, last modified 3 November 2010, <http://www.ec.gc.ca/default.asp?lang=En&n=714D9AAE-1&news=DA6B464F-64F5-4408-8CBA-1133C2C8AC84>.

Considering the low potential for conventional conflict in the Arctic, science can be a significant means to exercise sovereignty in the Arctic. According to University of Toronto atmospheric physicist Kimberly Strong, when research funding is cut and Arctic study is impaired, “It sends a message that Canada isn’t as serious about keeping an eye on its Arctic.”<sup>260</sup> In this age of climate change, contributions to science hold significant sway among the international community. China clearly understands the value of conducting polar research, and as Canada grapples with the best means to balance fiscal constraints and its Arctic clout, it should consider engaging China on cooperative polar studies that benefit both countries in meaningful ways.

### **Transoceanic shipping**

Arctic shipping is an area of great interest to China and of great importance to Canada. Therefore, it should be Canada’s desire to expand co-operation between both countries in this field. Because China and Canada are both members of the IMO and signatories to UNCLOS, there is a lot of common ground between them. In addition, Canada and China have similar perspectives on the interpretation of internal waters and international straits.

Since its passing of the AWPPA in 1970, Canada has fought to create new standards for Arctic shipping. Though the AWPPA proved to be controversial at the time

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<sup>260</sup>Kate Allen, "Arctic Scientists See Canada Slipping on World Stage," Toronto Star Newspapers Ltd., last modified 12 March 2013, [http://www.thestar.com/news/world/2013/03/12/arctic\\_scientists\\_see\\_canada\\_slipping\\_on\\_world\\_stage.html](http://www.thestar.com/news/world/2013/03/12/arctic_scientists_see_canada_slipping_on_world_stage.html).

of its passing in Canadian Parliament,<sup>261</sup> its intent has been validated under UNCLOS article 234 where it is written as follows:

Coastal States have the right to adopt and enforce non-discriminatory laws and regulations for the prevention, reduction and control of marine pollution from vessels in ice-covered areas within the limits of the exclusive economic zone, where particularly severe climatic conditions and the presence of ice covering such areas for most of the year create obstructions or exceptional hazards to navigation, and pollution of the marine environment could cause major harm to or irreversible disturbance of the ecological balance.<sup>262</sup>

As efforts by the IMO to implement a common Polar Code for Arctic shipping stall,<sup>263</sup> Canada should engage China on Arctic shipping standards directly. Chinese Arctic shipping increased 53 percent between 2011 and 2012, and by 2020 China expects to send up to 15 percent of its international trade through the Arctic, according to Huigen Yang, director general of the Polar Research Institute of China.<sup>264</sup> China should appreciate the importance of protecting cargo-carrying ships from austere Arctic sailing conditions. Although Canada was recognized to have demonstrated significant leadership in the area of Arctic pollution and the need for a robust Polar Code,<sup>265</sup> Chinese concurrence would add weight to the issue and cast China in a favourable light leading up

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<sup>261</sup>R. Michael M'Gonigle, "Unilateralism and International Law: The Arctic Waters Pollution Prevention Act," *University of Toronto Faculty of Law Review* 34, no. 2 (1976): 191.

<sup>262</sup>United Nations Convention on the Law of the Sea, Secretary-General of the United Nations, 10 December 1982, U.N.T.S. I-31363.

<sup>263</sup>Diane Haecker, "Polar Code Talks Stalled in IMO Subcommittee Meeting," *Pacific Environment*, last modified 1 March 2012, <http://pacificenvironment.org/polar-code-talks-stalled-in-imo-subcommittee-meeting>.

<sup>264</sup>Trude Pettersen, "China Starts Commercial use of Northern Sea Route," *Norwegian Barents Secretariat*, last modified 14 March 2012, <http://barentsobserver.com/en/arctic/2013/03/china-starts-commercial-use-northern-sea-route-14-03>.

<sup>265</sup>"Canada's Tough Stance on Arctic Shipping Pollution Praised," *CBC News*, last modified 31 March 2013, <http://www.cbc.ca/news/world/story/2013/03/31/canada-arctic-shipping-pollution.html>.



to the next Arctic Council meeting in May 2013 (where a vote on Chinese status within the council will be decided).

When it comes to the status of Canadian internal waters in the Arctic Archipelago, China and Canada are in similar situations. As it relates to Canadian sovereignty over the Northwest Passage, China has been relatively silent. Unlike Russia, the U.S. and the EU, China has not publicly expressed an opinion on the status of the Northwest Passage, preferring to maintain a neutral opinion on whether it is an international strait or internal Canadian waters.<sup>266</sup> As noted by Aldo Chircop, it is reasonable to assume China prefers not to wade into a discussion on the status of straits in Canadian and Russian waters because it does not want input from foreign nations on the sovereignty status of contentious straits in the East and South China Seas.<sup>267</sup> “The notion that the polar waters should be international territory might be turned against its own claims to sovereignty over most of the South China Sea, the Senkaku and Diaoyu Islands and even the island state of Taiwan.”<sup>268</sup> As summarized by Hugh L. Stevens in the Diplomat:

Given China’s wide-reaching claims to large parts of the South China Sea based on island baselines, it has been and no doubt will continue to be wary of taking any positions on the Arctic disputes that could undermine its territorial claims closer to home.<sup>269</sup>

In this light, China’s interests in northern shipping should not be considered a threat; rather China is a potential ally in the development of Arctic shipping in Canada’s North. Since its first visit to Tuktoyuktuk in 1999, China has abided by Canadian Arctic

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<sup>266</sup>Lasserre, *China and the Arctic: Threat Or Cooperation Potential for Canada?*, 8.

<sup>267</sup>Chircop, *The Emergence of China as a Polar-Capable State*, 14.

<sup>268</sup>Sibley, *China Enters the Arctic Equation*.

<sup>269</sup> Hugh L. Stephens, "Breaking the Ice: China's Emerging Arctic Strategy," *The Diplomat* (August 27, 2012), <http://thediplomat.com/china-power/breaking-the-ice-chinas-emerging-arctic-strategy/>.

regulations, and there is little reason to fear China will contest Canadian sovereignty over the Northwest Passage. China has repeatedly and consistently participated in the Arctic Council's Arctic Marine Shipping Assessment, and only stands to financially benefit from successful transoceanic shipping operations. Furthermore, the issue is likely moot for several more decades as the Northwest Passage will remain a more difficult route to operate than the Northern Sea Route currently operated by Russia.

### **Summary**

It is reasonable to question China's Arctic interests as it ascends to higher positions in the global power structure, but what should Canada do about it? Frankly, Canada should jump at the opportunity to actively court Chinese investment in the Canadian Arctic. Canada should engage China to cooperatively develop the North. Without losing national control of strategic energy and mineral reserves, Canada should consider China to be a strong source of direct foreign investment, a land of opportunity for Canadian exports, a deep source of scientific knowledge, and a partner in shaping the IMO's polar shipping requirements for safer maritime operations.

As Professor Michael Byers stated in 2012, "the Chinese are unlikely to overstep their rights in a region populated by NATO members: "Despite the concerns I have about Chinese foreign policy in other parts of the world, in the Arctic it is behaving responsibly. They just want to make money."<sup>270</sup> Frank Lasserre concurs:

The option of engaging China within the Arctic Council could be a real opportunity to advance Canadian interests in the area, as our interests

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<sup>270</sup>Rosenthal, *China Muscles in on Arctic Resource Race*, 1.

overlap in areas of research, environmental regulation of maritime shipping, interpretation of maritime treaties, and the need to cooperate and engage in multilateral mechanisms to reach an international compromise on these issues.<sup>271</sup>

As Canada leads the Arctic Council from 2013 to 2015, it has an opportunity to demonstrate to China that it is a welcome member of the Arctic community. Through shared governance that simultaneously respects Arctic nations' sovereignty and security requirements, China can both contribute to the international community and economically profit from being an active state in the evolution of the Arctic region.

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<sup>271</sup>Lasserre, *China and the Arctic: Threat Or Cooperation Potential for Canada?*, 11.

## **CHAPTER 7: CONCLUSION**

As global warming irrevocably alters our natural environment, shifts in economic strength and international influence are also changing the world's social, economic and political alliances. Melting ice cover is exposing new sources of natural resources in the Arctic, including minerals, gems, fisheries and hydrocarbons. Additionally, the natural barriers to maritime shipping in the Arctic Ocean diminish as ice recedes, thereby promoting transoceanic commercial shipping, fishing vessel access, tourism, and destination shipping to service northern communities. Such dramatic changes to the Arctic are attracting unprecedented interest from the international community, and giving Arctic states an opportunity (and an obligation) to guide responsible Arctic development.

Creation of the Arctic Council was a watershed moment in Arctic governance. The Arctic Council is an example of the willingness among Arctic states, Arctic indigenous communities and other Arctic inhabitants to pursue co-operation, co-ordination and interaction. As the prestige of the council has grown, and the strategic potential of a warmer Arctic is comprehended, participation and interest from other non-Arctic states and organizations has grown correspondingly.

Chief among those non-Arctic states is China. First, China would like to unlock the economic potential of the Arctic through advantageous shipping routes, and natural resources to feed its industrial complex. Secondly, China recognizes the Arctic is the next strategic arena meaning China wants a voice commensurate with its status as an elite global power. China has lobbied the Arctic Council for permanent observer status for years without success, but in the meantime, it has made large investments in diplomatic

relations, established bilateral agreements, and built upon its scientific experience in polar research. However, despite the strategic importance of the Arctic Ocean in the context of melting sea ice and its relative importance to Chinese strategy, China has yet to release a formal Arctic policy.

Canada is a coastal Arctic state with huge Arctic territory and a small population. Although the Arctic plays a central role in its identity, Canada has historically underdeveloped its northern potential due to limited capital and scarce federal funding. In the mid-1990s, Canada was a founding member of the Arctic Council marking one of Canada's better strategic initiatives in Arctic affairs. More recently, the Canadian government has announced renewed policies that place a direct emphasis on Arctic protection, development, and governance. Exercising sovereignty over the Arctic with an improved ability to monitor, patrol, protect, and respond to Arctic events will also enable Canada to act upon its published Arctic priorities. However, few fundamentals have changed, and if Canada is going to truly develop its northern region, co-operation with foreign nations is a viable option; and one of those potential foreign investors is China. In the absence of a published Arctic strategy, China has yet to commit itself to any one course of action, thus Canada could still figure prominently in their Arctic plans.

The Arctic has been cast as a land of opportunity, but Canada will require significant investment in infrastructure and skills training to recover resources from the Arctic. China has the financial reserves and industrial requirements to exploit those resources. Serendipitously, Canada has conducted several trade tours through Asia over the last few years looking to diversify its markets and expand bilateral trade to countries in the Pacific region.

Polar research is another area where Canada and China have demonstrated common interests. Although an MOU already exists and was recently renewed, an obvious and noteworthy initiative on scientific collaboration involving climate change or some other high-profile Arctic issue would be valuable. Inviting Chinese expertise to participate in Canadian research activities could be a promising field of expanded co-operation.

With respect to regulations for shipping in ice-covered waters, Canada and China's interests converge again. With a large percentage of their economy dependent on commercial shipping and an anticipated 15 percent of their maritime trade plying Arctic waters by 2020, China should share an interest in protecting vessels at sea. For Canada, increases in Arctic shipping are a source of concern due to increased pollution risks and the potential for a search and rescue response. By coming to a bilateral agreement on Arctic shipping, China and Canada could subsequently petition the rest of the world to join a common IMO polar code. Canada would benefit from safe, purpose-built ships when they come through the Northwest Passage, and China could cement a position of leadership in the construction of ice-strengthened commercial vessels.

Finally, Canada and China have an opportunity to align policy on the status of the Northwest Passage. Considering the infrastructure supporting maritime traffic through the NSR, and the improved conditions off the Russian coast versus that of Canada's Arctic Archipelago, there is limited upside to China claiming and employing the Northwest Passage as an international strait. Furthermore, considering China's own strategic stance in the South China Sea, having another country that supports the concept of straight baselines to define maritime boundaries could be advantageous.

China's failure to articulate an Arctic policy is the result of two possible motives: either China has yet to figure out what it truly wants from the Arctic, or more realistically, China knows what it wants, but has yet to figure out how to achieve it without alarming the entire world. Contradictory commentary from military admiralty, Chinese scholars, and foreign affairs personnel have not helped the international community come to a common assessment of China's Arctic intent, but such disparate views are common in many cultures. China's domestic policy is set by the CCP and often conflicts with Western perspectives, however, it is imperative to remember China's strategic policy and international mantra is one of co-operation and peaceful prosperity.

Canada will never be able to maximize the potential of the Arctic independently, but it must generate an ability to self-sufficiently and effectively monitor, patrol, protect, and respond to non-military Arctic incidents. Subsequently, Canada should seek foreign investment capital that will harness its northern natural resource projects. Economic spinoffs from foreign investment must be done in an environmentally-friendly manner that expands northern infrastructure for communities and empowers northern peoples. Economic development will bring additional maritime traffic, but options exist within the international community to enact robust shipping standards in ice-covered waters. The Arctic is a lawfully-governed land, but global warming has also made the Arctic a strategic region. Canada can no longer procrastinate and it can no longer divert its attention from Arctic development. Considering China's need for natural resources, its reliance on safe commercial shipping, and its desire to be a global power with a voice in strategic arenas, China is an excellent candidate for direct foreign investment and co-operation in the development of Canada's Arctic.

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