

## CHINA'S ARCTIC AMBITIONS AND WHAT THEY MEAN FOR CANADA

by P. Whitney Lackenbauer, Adam Lajeunesse,  
James Manicom, and Frédéric Lasserre

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## Sovereignty and Shipping

*Once this route [the Northwest Passage] is commonly used, it will directly change global maritime transportation and have a profound influence on international trade, the world economy, capital flow and resource exploitation.*

China's Maritime Safety Administration (2016)

It is a curious irony that, for the better part of four centuries, British explorers plied the waters of the North American Arctic seeking a northwest passage to China – yet in the twenty-first century, as the polar ice recedes, Canadians seem concerned that China may soon use the Northwest Passage as a route to Europe and the eastern United States. This chapter explores Chinese shipping interests in the region, and places concerns about them in the context of the international legal regime that governs the Arctic waters, Chinese foreign policy interests, and the relative viability of different prospective sea routes. Contrary to many of the fears expressed in recent years about the threat Chinese shipping may pose to Canada, we find that neither the viability of the Northwest Passage nor the alleged threat to Canadian sovereignty live up to their hype. In the short to medium term, China is much more likely to pursue whatever Arctic shipping interests it has through Russia's Northern Sea Route (NSR), which is better supported and more easily navigable. What's more, what little Chinese shipping that does take place through the Northwest Passage is likely to be in compliance with Canadian rules and regulations, and more likely to strengthen Canada's sovereignty than to threaten it.

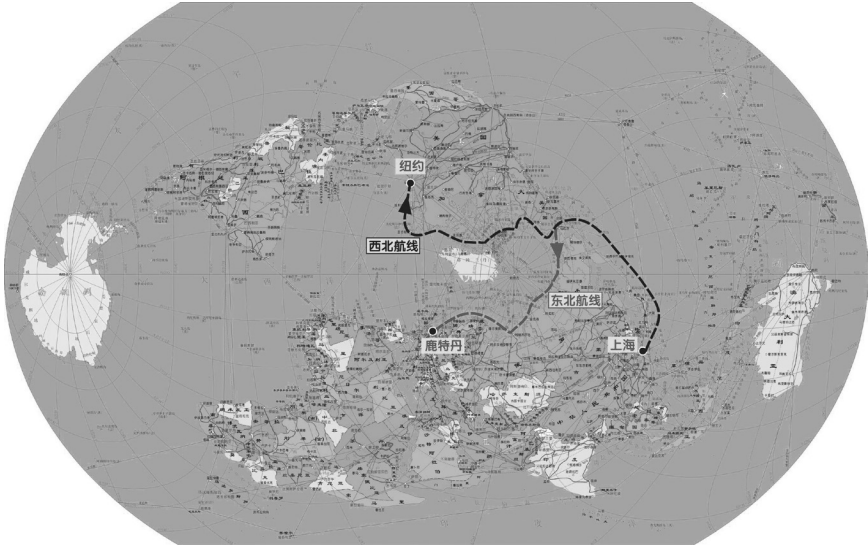
**3.1 Distances between Major Ports.** Dark grey indicates the shortest routes, light grey indicates those that are nearly as short.

Origin–Destination	Panama	Northwest Passage	Northeast Passage	Suez and Malacca
Rotterdam–Shanghai	25,588	16,100	15,793	19,550
Bordeaux–Shanghai	24,980	16,100	16,750	19,030
Marseilles–Shanghai	26,038	19,160	19,718	16,460
Gioia Tauro (Italy)–Hong Kong	25,934	20,230	20,950	14,093
Barcelona–Hong Kong	25,044	18,950	20,090	14,693
New York–Shanghai	20,880	17,030	19,893	22,930
New York–Hong Kong	21,260	18,140	20,985	21,570
Rotterdam–Los Angeles	14,490	15,120	15,552	29,750
Lisbon–Los Angeles	14,165	14,940	16,150	27,225

China’s shipping interests are a product of its position as the world’s leading trading nation. China achieved this distinction in 2012, when the country exported \$3.87 trillion worth of goods – most of which travelled by sea.<sup>1</sup> Roughly 46 per cent of China’s GDP comes from international trade and the country continues to develop its maritime infrastructure at a break-neck pace.<sup>2</sup> Accordingly, China’s interest in the Northwest Passage, and in Arctic waters more generally, are an extension of these broader trade concerns. Beijing closely monitors any change to global trade routes that might affect shipping, given the inevitable impacts on the Chinese economy.<sup>3</sup> The emergence of new Polar routes – either through the Northwest Passage, the Russian Northern Sea Route, or even the Transpolar route across the Arctic Ocean itself which the *Xue Long* navigated on its return trip from Iceland to China in 2012 – would naturally qualify as such a change.

From a strictly geographic perspective the Arctic routes seem to offer significant advantages over the traditional sea lanes around the Cape of Good Hope, Cape Horn, or through the Suez or Panama Canals (see figure 3.1). The NSR would be particularly appealing for traffic between China and northern

3.2 The Arctic from a Chinese Perspective, Linda Jakobson, *China Prepares for an Ice-Free Arctic* (Stockholm, Sweden: Stockholm International Peace Research Institute, March 2010).



Europe, while the Northwest Passage would (at least at first glance) seem to offer a better alternative for ships travelling from China to the American eastern seaboard. Shorter routes, presumably, mean shorter transit times and therefore reduced crew and fuel expenses, as well as the ability to maintain a trade route with fewer ships. One Chinese academic approximates that a viable Northern Sea Route could yield \$60–120 billion in savings a year for Chinese shipping firms.<sup>4</sup> Shou Jianmin and Feng Yuan, of Shanghai Maritime University, estimate that use of the route would lead to savings of 10 per cent in fuel and 25 per cent in overall costs.<sup>5</sup> Estimates by the Polar Research Institute of China, which envision 5–15 per cent of Chinese international trade travelling through the NSR by 2050, seem to support this supposition. In September 2012, an official from the National Development and Reform Commission, attending the 15th EU-China Summit, asserted that 30 per cent of the cargo between China and Europe is expected to transit via the NSR “in the future.” He even argued that, by 2030, about 50 per cent of the container traffic from traditional routes along Suez and Panama would be diverted to Arctic routes - a figure used by Chinese scholars.<sup>6</sup>

In addition to the economic benefits, new shipping routes might also be of strategic benefit to China. Its existing trade routes pass through a series of canals and chokepoints which could conceivably be closed by either criminal activity or a hostile foreign state. An upsurge in piracy in the Gulf of Aden, for instance, increased the cost of insurance for ships travelling through the Arabian Sea to the Suez Canal by more than 1,000 per cent in the short period between September 2008 and March 2009.<sup>7</sup> More generally, piracy has increased both the dangers and costs of operating along some of the world's most travelled sea lanes. The worldwide cost to shipping companies from such attacks has been estimated at \$7–12 billion a year in insurance premiums, ransoms, and disruption.<sup>8</sup> While Chinese shipping has been affected by piracy off the Horn of Africa, such attacks are also a regular occurrence closer to home – in and around the vital Strait of Malacca. Although the frequency of these attacks has fallen considerably in recent years (owing to better cooperation between Indonesia, Malaysia, and Singapore) it remains a persistent problem facing Southeast Asia.<sup>9</sup>

For China, viable Arctic routes could offer important alternatives and/or redundancies. In the event that one or more other straits were closed to its shipping, the Arctic might provide an outlet for Chinese manufactures as well as an import route for the oil and raw materials that the country relies upon to fuel its economy. As mentioned in the first chapter, Chinese officials have cited the security of their country's oil supply as a particular concern. With 50 per cent of its oil coming from the increasingly unstable Middle East and 85 per cent through the Strait of Malacca, a blockade or closure of that route during a conflict could prove both economically and strategically disastrous.<sup>10</sup> Chinese officials and the media have dubbed this danger the "Malacca dilemma." In November 2003 President Hu Jintao declared that "certain major powers" were bent on controlling the strait, and called for the adoption of new strategies to mitigate the perceived vulnerability.<sup>11</sup> Under these circumstances, the prospect of an alternate route (or a number of alternate routes) through the Arctic is particularly appealing.<sup>12</sup>

In 2010, for instance, Guo Peiqing, a professor of polar politics and law at the Ocean University of China, told an interviewer that he foresaw the Arctic becoming "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>13</sup> Li Zhenfu, a professor at Dalian Maritime University, together with a team of specialists, has been looking closely at the benefits that polar shipping might

provide. Referring both to the shortened shipping routes between East Asia and Europe or North America and to abundant Arctic oil, gas, mineral, and fishery resources, Li concluded that “whoever has control over the Arctic route will control the new passage of world economics and international strategies.”<sup>14</sup> Thus, while China does not have an official Arctic strategy related to shipping, academics and government officials have indicated that more attention should be paid to the region.<sup>15</sup> However, neither this awareness of the potential value of northern shipping routes, nor the occasionally aggressive statements of its academics should be mistaken as evidence of a Chinese plot to take control. As scholar Timothy Wright points out, both Admiral Zhuo and Li Zhenfu – whose provocative statements are widely quoted by Western analysts as demonstrating nefarious intentions – have decided to stop (or been told to stop) their impolitic statements. Meanwhile, today’s scholarly work in China is more grounded and conservative.<sup>16</sup> Moreover, China’s foreign policy orientation and its polar and maritime interests, combined with robust international legal norms, are more likely to position it in support of Canada’s sovereignty position and push it towards increased regional cooperation – rather than the reverse.

## The Northwest Passage: A Convenient Shipping Route?

The idea of a Northwest Passage connecting Europe to the “Orient” and opening new trade opportunities has fired the imagination of navigators, trading companies, and states for more than five centuries. The map of the Arctic Archipelago is replete with the names of explorers who attempted to twist their way through the maze of islands and channels that comprise the Northwest Passage (which is really a series of routes through Canada’s Arctic). During the early Cold War, security considerations produced an increased tempo of Canadian and American maritime activity in these waters to build and resupply weather and radar stations. Concurrently, the voyages of the Eastern Arctic Patrol continued to “show the flag” for Canada by resupplying Arctic settlements. Apart from submarine transits through these waters, the vast majority of maritime activity was therefore in the form of destination shipping, with few vessels actually passing through the Northwest Passage.<sup>17</sup>

In 1969 the voyages of the American oil tanker *Manhattan* rekindled popular interest in the commercial possibilities of transpolar-shipping through the Archipelago. While the supertanker’s dramatic transit stimulated

Canadian sovereignty and environmental concerns, it ultimately proved the route uneconomical.<sup>18</sup> In recent years a renewed interest in mining and oil and gas development has generated new interest in using the Northwest Passage as a route in and out of the region, however the shipping industry does not consider it as a viable passage through the region at this time.<sup>19</sup>

In Canada, however, discussions of Arctic shipping naturally gravitate to the potential opening of the Northwest Passage to this kind of through traffic. There have been commentaries in Chinese newspapers and political journals implying that China should enjoy rights of passage through the Arctic straits; however what that “right” actually entails is rarely spelled out and is often considered as part of China’s acceptance of recognized maritime law.<sup>20</sup> Equally important, most Chinese scholars writing about potential transit are equally interested in Canadian or Russian regulations as an important enabling factor – indicating an implied respect for an Arctic coastal state’s rights to apply regulations.<sup>21</sup>

The idea that the Canadian Arctic may turn into a transit route was given new life in April 2016 with the publication of a manual on navigation through the Northwest Passage by China’s Maritime Safety Administration. Ministry spokesman Liu Pengfei was widely quoted in the Canadian media saying that Chinese ships will sail through the Northwest Passage “in the future,” and “once this route is commonly used, it will directly change global maritime transport and have a profound influence on international trade, the world economy, capital flow and resource exploitation.”<sup>22</sup>

While the publication of this shipping guide highlights China’s continued interest in Arctic shipping it does not represent the threat to Canadian sovereignty as alleged by some media commentators.<sup>23</sup> This report, like China’s shipping instructions for the Northern Sea Route (published in 2014), consists of chapters addressing the following:

1. General Arctic ice terminology
2. Navigation routes and maps
3. An introduction to coastal state rules, ports, meteorological information, and ice distribution
4. Northwest Passage navigation practices

5. Navigational aids in the Northwest Passage (including telecommunication services)
6. Hydrographic information and ice data
7. Northwest Passage rules concerning ship inspection, risk assessment, and crew requirements
8. Arctic shipping risks response guidelines and environmental protection
9. A case study of the *Nunavik*'s 2015 transit of the Northwest Passage<sup>24</sup>

This guide offers nothing new or particularly threatening. There is no information on the economics of Arctic shipping that might be useful for planning a voyage, nor is there anything that could be seen as a challenge to Canada's legal position or its jurisdictional control over any portion of the Northwest Passage. If anything, this report actually supports Canadian sovereignty. When addressing regulation, for instance, the Ministry authors write: "The Canadian government considers the Northwest Passage as internal waters, and foreign ships are obliged to apply for a permit and to pay relevant fees. Foreign ships should obey the 'Canada Shipping Act, 2001' and the 'Northern Canada Vessel Traffic Services Zone Regulations 2010' [translated from the original Mandarin]."<sup>25</sup> In a later chapter the authors remind ship owners that they are required to report into NORDREG (Canada's northern vessel reporting system), that vessels carrying dangerous goods must apply for approval, and that "foreign ships should submit a sailing plan (SP) to Marine Communications and Traffic Services."<sup>26</sup> What emerges from this report is an implicit acceptance of Canadian sovereignty, as the Northwest Passage is clearly being treated as waters over which Canada enjoys full jurisdiction – rather than as an international strait, which would not require this level of reporting to transit.

Canadian waters offer only one of the potential transpolar routes and, by almost every consideration, the least attractive one.<sup>27</sup> From a Chinese perspective the NSR appears to hold the greatest appeal. Because of its geographical characteristics and position, coupled with its more advanced level of infrastructure, select but regular shipping through Russia's northern waters is a near-term possibility.<sup>28</sup> Meanwhile, the use of Canadian waters for transit



shipping remains a distant hypothetical.<sup>29</sup> A note from the Chinese Ministry of Commerce, dated September 11, 2013,<sup>30</sup> underlines these differences and clearly highlights Chinese interest in the NSR over the Northwest Passage.

In terms of distance from China to the major European and North American ports, the NSR is superior to the Northwest Passage in all but one case: travel from China to Canadian or American ports in the North Atlantic. From Shanghai to New York, for instance, travel through Canadian waters would cut nearly 3,000 km from the voyage compared to the NSR, or roughly 3,700 km compared to the Panama Canal. This reduction in travel time would eliminate roughly five days from the voyage, assuming an average speed of 13.3 knots.<sup>31</sup> While this reduction might result in cost savings under ideal conditions, it is unlikely to induce any shipping company to move into the Canadian Arctic in the foreseeable future, since any distance advantage could easily be nullified by difficult and unpredictable ice conditions, adverse weather, and a lack of supporting infrastructure.<sup>32</sup> This fact is recognized in China where some commentators have pointed to Canada's unwillingness to invest in northern shipping infrastructure – or at least on the same scale as Russia – as a limiting factor.<sup>33</sup> This is particularly the case in the age of just-in-time inventory management where shipping schedules are precisely calculated and late arrivals are unacceptable.<sup>34</sup>

The melting of the Arctic ice has generally been opening the region as a whole to increased activity, while also increasing certain hazards in the Canadian Arctic. Specifically, the melting of first-year ice in the western Arctic allows winds and ocean currents to drive more old ice from the Arctic Ocean into the narrow channels of the Archipelago. As such, some of the more important areas (from a shipping perspective) have actually exhibited an increase in hazardous ice levels. This shift is largely the result of an ocean current pattern called the Beaufort Gyre, which regularly shifts multi-year ice from farther north into the western channels of the Archipelago.<sup>35</sup> Accordingly, most experts predict that even as overall ice cover in the Arctic Basin recedes, conditions in Canada's Arctic shipping channels will continue to remain extremely dangerous.<sup>36</sup> As young ice in large segments of the passage melts during the summer shipping season, old ice from farther north moves south and the result is an increase in dangerous ice conditions exactly when ships might otherwise have been able to move through the passage.

Compounding the dangers posed by ice are the draft requirements for many of the passages within the Arctic Archipelago. The easiest and most

travelled routes through the Northwest Passage have always been through Peel Sound and M'Clintock Channel; yet both of these passages restrict the draft of a ship, meaning that the economies-of-scale provided by the world's biggest cargo vessels cannot be realized. The deep-draft routes through Prince of Wales and M'Clure Strait could handle even the 25-metre draft of an ultra large crude or cargo carrier, but these are the areas with the most extreme ice conditions in the Canadian Arctic and, even in the summer months, are currently limited to Arctic Class 3 vessels.<sup>37</sup>

The Arctic Maritime Shipping Assessment (AMSA), a four-year, multi-national project undertaken by the Arctic Council's Protection of the Arctic Marine Environment working group, concluded that the Northwest Passage is highly unlikely to become a viable trans-Arctic route before 2020.<sup>38</sup> For the environmental, economic, and administrative reasons already listed, the models that the AMSA used to gauge the future viability of Arctic sea routes indicate that the last regions of the Arctic Ocean to safely open to shipping would be northern waterways of the Canadian Archipelago and the northern coast of Greenland.<sup>39</sup> A 2013 report by the US National Academy of Sciences reached a similar verdict. Under none of their simulations did shipping through Canadian waters emerge as a viable option before 2040–59.<sup>40</sup>

To demonstrate this point on the operational level, Lasserre has gone beyond the theoretical ice melt calculations and in 2008 contacted sixty-five of the shipping firms that might have been interested in Arctic operations. He found that few of them had any interest in shipping through the Northwest Passage and that most of those that did were already involved in the annual sealift of bulk supplies to northern communities. Of the major Chinese firms contacted then, neither Orient Overseas Container Line (OOCL), China Ocean Shipping Company (COSCO), nor China Shipping Container Lines (CSCL) expressed an interest in opening Arctic shipping routes in the short or medium term, largely because of the slower speeds across these routes, the higher insurance costs, the high probability of delays, and the serious risks of damage to the ships and cargo.<sup>41</sup> A second, more extensive survey in 2009 yielded similar results, with only six out of forty-six container shippers willing to state that they would even consider an Arctic route.<sup>42</sup> A third survey of 125 firms, conducted between 2009 and 2010, led to the conclusion that, among the ninety-eight answering firms, there was still very little serious interest<sup>43</sup> (see figures 3.3 and 3.4).

Lasserre updated these numbers in September 2013 after a series of direct interviews with twenty-three Chinese shipping and forwarding companies.

3.3 Overview of Responses According to Company’s Main Sector of Activity.

Sector of Activity							Total
	Container	RoRo	Container and Bulk	Bulk	General Cargo	Special Project	
Yes			2	9	5	1	17
No	35	2	5	25	4		71
Maybe	3		1	6			10
Total	38	2	8	40	9	1	98

3.4 Overview of Responses According to Company’s Home Region.

Home Region				Total
	Europe	Asia	North America	
Yes	10		7	17
No	32	25	14	71
Maybe	5	3	2	10
Total	47	28	23	98

The pattern remained the same, with few industry representatives expressing any real interest for Arctic shipping (see figure 3.4).<sup>44</sup> Only two companies admitted to even considering Arctic operations: the first thought it a possibility but still questioned the profitability, while the second displayed an interest in transporting Arctic natural resources, but only from Siberia to China. COSCO did send a ship, the *Yongsheng*, across the NSR in 2013, but some officials from the company recognize that the profitability of large-scale shipping in the Arctic remains to be ascertained – and remains questionable.

While several interviewees expressed a belief in the *potential* of Arctic shipping, none had yet undertaken an extensive cost/benefit or “SWOT” analysis of that potential.<sup>45</sup> Chinese companies cited various problems with Arctic operations, including the high investment necessary to buy ice-strengthened ships; market constraints surrounding schedules and ship sizes limiting economies of scale; an Arctic market too small to build a profitable route and, therefore, a longer return on investment on costly ice-strengthened ships; as well as physical risks and high insurance costs.

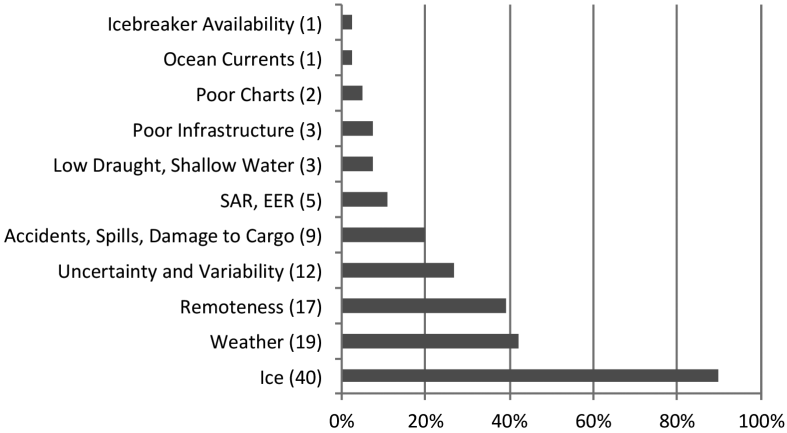
3.5 Overview of Responses According to Type of Shipping – Question: “Are You Considering Developing Operations in the Arctic?” (2013).

	Container and bulk	Container	Bulk	Multipurpose	Charterer/ forwarder/ broker	Total
Yes	1		1			2
No	1	1	5	6	5	18

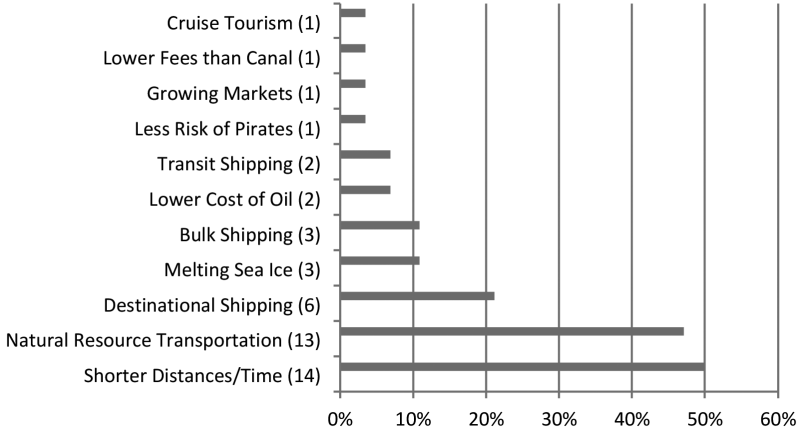
The most recent such survey – undertaken in 2016 by Leah Beveridge, Mélanie Fournier, Frédéric Lasserre, Linyan Huang, and Pierre-Louis Têtu – demonstrated the general continuity of this trend, though with a noticeable uptick in interest when companies were asked to speak of potential for the industry as a whole. Of those companies asked about the commercial potential of Arctic shipping, twenty-eight saw potential for the industry; fourteen saw none “yet,” and three saw no potential ever emerging. When asked about their company’s interest (rather than the industry’s writ large) only two saw real potential, with nineteen responding that their company had none and three saying that they were unsure. In short, while Chinese companies remain pessimistic about their individual corporate futures in the Far North, the generally positive response when asked about the industry as a whole does show a trend towards the possibility of Arctic shipping – at least when speaking in the hypothetical.<sup>46</sup>

This survey also expanded upon why these companies continued to express limited interest in the North. As figure 3.5 illustrates, shipping companies see the risk in Arctic activities as being ice, weather, the remoteness of the region, timetable uncertainty and variability, and the heightened potential for accidents.<sup>47</sup> Reasons for potential interest (either for their company or the industry in general) revealed nothing surprising; most companies surveyed saw the shorter distances and potential for resource shipping as the most attractive aspects of Arctic operations. Somewhat surprisingly, only three responses out of forty-seven (6 per cent) mentioned the melting sea-ice, which is ironic given the level of attention this factor receives in Western media and scholarly literature.<sup>48</sup> Overall, these results reinforced the conclusions of previous surveys in demonstrating little concrete interest on the part of Chinese shipping companies in Arctic operations. What interest exists remains in certain niche markets, or as speculation on future potential.

3.6 Risks of Arctic Shipping, Leigh Beveridge et al., “Interest of Asian Shipping Companies in Navigating the Arctic,” *Polar Science* 10, no. 3 (2016).



3.7 Interests in Arctic Shipping, Leigh Beveridge et al., “Interest of Asian Shipping Companies in Navigating the Arctic,” *Polar Science* 10, no. 3 (2016).



This analysis of shipowners' intentions reveals a different, and much more restrained, picture from the often repeated news media image of a future Arctic shipping highway. Although marine traffic in the Russian and Canadian Arctic is increasing, it is far from representing an "explosion" in new activity. The constraints of just-in-time planning and schedule creation, as well as collision/grounding risks, are simply too great when placed against the relatively modest savings in time and fuel. Furthermore, while many Chinese shipowners have ties to the Chinese government, there is no indication that they are acting as strategic actors to execute a nefarious government policy; instead, they appear to be operating along the same economic principles as the rest of the international shipping industry.<sup>49</sup>

Rather than international shipping, which has the choice of various different routes, current trends point to destinational shipping as the most likely user of the Arctic sea routes (and particularly the Northwest Passage). Destinational traffic, which is defined by vessels travelling into or out of the Arctic, includes ships servicing local communities and natural resource exploitation activities from Arctic sites like Deception Bay, Kirkenes, Vitino, or Murmansk. This scenario assumes heightened resource development in the region, itself a proposition dependent on many variables: from global resource prices to permitting and support from local populations. Nevertheless, as new mines come online in the Canadian Arctic the process will only accelerate. Fednav, a Canadian-owned shipping company, moved the first cargo of nickel concentrate from Deception Bay, Quebec to China via the Northwest Passage in September 2014 and began shipping iron ore from the Mary River Mine on Baffin Island in 2015.<sup>50</sup> Tourism remains a major source of activity as well, with seventeen voyages in Canadian Arctic waters in 2013, eleven in 2014, and eighteen in 2015.<sup>51</sup> Meanwhile, community resupply missions will continue to increase as Canada's northern population expands (the current rate of population growth in Nunavut is 3.2 per cent versus Canada's 1.2 per cent).<sup>52</sup>

Even if Chinese ships are involved in this destinational traffic, that activity is unlikely to damage Canadian sovereignty in any way. Because their stopover in a Canadian port immediately triggers the regulations of the state (Canada) that owns the port, the ships involved would have to obey Canadian law and shipping regulations. In fact, China has never shown any intention of challenging Canadian sovereignty. In a March 2013 meeting of Canadian researchers (including Lasserre) and representatives of the Canadian Embassy with Chinese researchers and officials from the Polar Research Institute of



3.8 The Fednav vessel *Nunavik* in the Prince of Wales Strait, courtesy of Fednav.

China (PRIC), the official Chinese scientific leaders stressed that China intends to seek permission to transit through the Northwest Passage for its research icebreaker, thus expressly recognizing the Canadian position.<sup>53</sup>

From a practical perspective there would also seem to be little possibility of an implicit challenge from Chinese ships since these ships involved would have to obey Canadian law and shipping regulations, thus reinforcing Canada's position that the Northwest Passage constitutes internal Canadian waters. Any refusal to do so would jeopardize that company's rights to continue mining on Canadian soil. After investing many hundreds of millions of dollars developing a mine, it seems unlikely that any company, Chinese or otherwise, would feel the need to risk its investment with an aggressive political stand against Canadian sovereignty.<sup>54</sup>

## China and the Northern Sea Route

While systematic studies have downplayed the Northwest Passage as a viable shipping route in the foreseeable future, studies such as the landmark AMSA 2009 Report recognize the emerging potential of the Northern Sea Route, particularly as Chinese manufacturers seek to open new markets in the European Union.<sup>55</sup> The NSR not only offers significantly shorter routes to Europe but a level of maritime infrastructure and navigational support that is absent in the Canadian North.

The NSR was first developed by the Russian czars in the early twentieth century and expanded considerably during the Soviet era, both as an export route for Siberian raw materials as well as a strategic link with the Russian Far East. At its height in 1987, the route carried almost seven million tons of cargo.<sup>56</sup> The NSR's infrastructure, which includes icebreaking support and navigational and port infrastructure, fell into disrepair after the collapse of the USSR, but it has received renewed attention as reduced sea ice makes international traffic along the route increasingly viable. Over the last decade, the Russians have invested heavily to develop the NSR as a fully integrated "national transportation route" connecting Europe and Asia – a project that requires modern harbours, new icebreakers, air support, and enhanced search and rescue capabilities.<sup>57</sup> Indeed, Russia recently opened the first of ten search and rescue centers planned to operate along the route by 2015.<sup>58</sup>

Cargo transported along the NSR reached a post-Cold War record in 2011 at 820,789 tons.<sup>59</sup> By 2013 it had grown to 1,355,897 tons.<sup>60</sup> Most of this was destination rather than through traffic, but the route's potential for international shipping has caught Chinese attention. In May 2014 Vladimir Putin and Chinese President Xi Jinping formalized this interest, issuing a joint statement on Russian-Chinese cooperation that, among other things, included a Russian promise to facilitate Chinese shipping along the route. Two months later, China released a sailing guide to the NSR that included nautical charts, sailing methods, ice-breaking instructions, as well as information on the laws and regulations of countries along the route.

Commenting on the successful test voyages from South Korea to the Netherlands via the NSR by two German commercial vessels in the summer of 2009, Chen Xulong of the China Institute of International Studies wrote that "the opening of the Arctic route will advance the development of China's north-east region and eastern coastal area. It is of importance to East



Asian cooperation as well.” Chen continues on to say that, for these reasons, China should develop a long-term vision regarding Arctic shipping.<sup>61</sup>

Other commercial voyages have transited the route since that time. In 2012, the LNG carrier *Ob River* completed the westbound voyage in ballast in only six days and, after loading LNG at the port of Hammerfest, made its return voyage to Tobata, Japan without incident. The Russian gas giant Gazprom has held this transit up as proof that the NSR can be developed as a viable trade route linking the northern Russian gas fields to Asian markets.<sup>62</sup>

Calls to exploit this new route are now coalescing in China. State media has reportedly praised the NSR as the “most economical solution” for shipping between Chinese and European ports, while paraphrasing Yu Cheng of the Chinese maritime industry<sup>63</sup> who referred to it as the “Golden Waterway.”<sup>64</sup> Recent developments attest to the possibility of a nascent economic niche for certain cargoes. Taking advantage of accelerating ice decline along the Siberian coast, the first attempt at transporting hydrocarbons from Russia to China by the NSR was undertaken in August 2010 when the *Baltica*, escorted by a Russian icebreaker, took twenty-seven days to deliver natural gas condensate from Murmansk to Ningbo (Zhejiang). This trial was followed by a commercial agreement on long-term cooperation on Arctic shipping along the NSR between the Russian sea shipping company *Sovcomflot* and China National Petroleum Corporation (CNPC) that was concluded on November 22, 2010. This agreement, declared to be part of the Russia-China energy cooperation strategy, was signed in presence of the Russian Federation vice-prime minister Igor Setchin (who is also president of the board of the oil company *Rosneft*, the second largest oil producer in Russia), and of Wang Qishan, vice premier of the People’s Republic of China.<sup>65</sup> In 2014, plans were also set in motion to construct sixteen new icebreaking tankers to operate along the route, supplying Russian gas from the Yamal project to Asian customers. Six of these vessels were already being built for China LNG Shipping when Western credit for the project dried up with the imposition of sanctions in the summer of 2014. Consequently, project operator Novatek turned to Chinese banks for \$10 billion in additional funding.<sup>66</sup>

Huigen Yang, director general of the Polar Research Institute of China, proclaimed at a conference in Oslo in March 2013 that fully 15 per cent of the country’s international trade could travel through the Arctic by 2020.<sup>67</sup> These ambitious goals should, however, be viewed with a healthy degree of skepticism. While the NSR is better supported and more easily navigable than

the Northwest Passage, its use remains subject to constraints that are similar, if less severe, than those of its Canadian counterpart. These include harsh environmental conditions, a brief window of operation, and high icebreaker fees. In the summer of 2016, Chinese captain Wu Weibing transited the route aboard the COSCO vessel *Yong Sheng*, and his report of the voyage after the fact highlighted these difficulties. In an article published by the Chinese journal *Marine Technology*, Weibing noted real “challenges and inconveniences,” ranging from a lack of detailed navigational information, a language barrier working with Russian officials, and hydrographic charts that were sometimes off by ten metres. Ice-reporting was, likewise, sparse and inconsistent while communications were limited by the high latitude.<sup>68</sup> Still, Weibing notes that the route holds great potential value. At 3,500 nm (and eleven days) shorter than the Suez route, the ship likely saved \$210,000 in charter and fuel savings.<sup>69</sup>

The Northern Sea Route also faces competition from new transportation corridors further south. In September 2013, Chinese president Xi Jinping announced his country’s plans to construct the “Silk Road Economic Belt,” a series of high-speed rail, freeways, and pipelines that will criss-cross lands once traversed by caravans in the first millennium, backed by a \$40 billion development fund. Theoretically, this route will enable shipments between China and Europe to move faster than they would through the NSR, while avoiding the dangers and uncertainties of the Arctic environment.<sup>70</sup> While megaprojects of this nature often fail to live up to their initial promise, an efficient cross-Asia land route would siphon off some of the NSR’s expected business.

The most likely scenario for Chinese shipping (with or without a new silk road) is that the NSR will remain a niche route for select cargoes – at least for the foreseeable future. Indeed, some of the enthusiasm surrounding the NSR began to deflate in 2014 when traffic was roughly halved compared to its 2013 levels and cargo levels fell a stunning 80 per cent, in spite of a longer shipping season.<sup>71</sup> The NSR administration blamed this decline on shipping decisions made by two of its largest users, EvroKhim and Novatek, indicating that the reduced tempo may be temporary but also demonstrating how concentrated NSR traffic is in a few local shippers.<sup>72</sup>

As with the Northwest Passage, most of the traffic using the NSR will continue to be destinational – with supplies flowing into northern communities and resources flowing out. Until significant new resource projects come online requiring shipping to Chinese (or other Asian) ports, usage of the NSR

will continue to be both light and extremely variable. Few stories of China's growing Arctic interest address how small this interest actually is, relative to China's massive and ever-expanding shipping interests elsewhere in the world. Rather than actively preparing for the opening of the Northwest Passage, Chinese companies have invested heavily in modern non-ice-strengthened cargo ships to serve their overseas markets. Along these lines, Chinese firms are investing in port terminals along the classical routes through Panama (or potentially a new canal through Nicaragua) and the Suez/Malacca route.

Chinese port management companies, like Hutchison Port Holdings (HPH) in Hong Kong, have acquired major stakes in Panamanian ports and in other canal operators. HPH has stakes in several ports near or along the Suez-Malacca route: Tanjung Priok (Indonesia), Port Klang (Malaysia), Yangon (Myanmar), Sohar (Oman), Alexandria (Egypt), Taranto (Italy), and Barcelona (Spain).<sup>73</sup> In 2008, COSCO Container Lines launched a multimodal service to the Panamanian port of Balboa that links Asian markets with Mexico, Panama, and the Caribbean.<sup>74</sup> Between 2009 and 2013, COSCO also invested €340 million taking over terminals II and III at the Greek port of Piraeus, an important hub close to the Suez Canal.<sup>75</sup> COSCO Pacific now also owns 49 per cent of the COSCO-PSA Terminal Private in Singapore and 20 per cent of Suez Canal Container Terminal (in Port Said, Egypt).<sup>76</sup> While there may be Chinese interest in Arctic routes, these investments elsewhere help to keep it in perspective. China remains overwhelmingly wedded to the classical global sea routes through Malacca, Suez, and Panama. The Arctic routes may evolve into something more in the future, but for the moment they are defined by their potentiality rather than their actual utility.

## Are the Chinese a Threat to Canada's Sovereignty in the Northwest Passage?

The first and foremost pillar of Canada's foreign policy is "the exercise of our sovereignty over the Far North." The statement highlights that "protecting national sovereignty, and the integrity of our borders, is the first and foremost responsibility of a national government. We are resolved to protect Canadian sovereignty throughout our Arctic."<sup>77</sup> The "hard security" message that had figured prominently in earlier statements by the Harper Government is muted in recent Canadian policy documents, however, and the tone of cooperation with circumpolar neighbours and northerners rings

loudest. Accordingly, Canada's *Statement on Arctic Foreign Policy* commits it to "seek to resolve boundary issues in the Arctic region, in accordance with international law." While these well-managed disputes pose no acute sovereignty or security concerns to Canada, most commentators continue to see them as a political liability.

Although it is not a "boundary dispute," Canada's legal position that the Northwest Passage constitutes internal waters is not universally embraced. While the United States has taken a public position suggesting that the passage constitutes an international strait (although it has never been used as such in functional terms), most countries have remained silent on the issue. Canadian commentators often assume that, given their interests as maritime nations, East Asian states must naturally oppose Canada's position. David Wright, for instance, observes that "some Chinese scholars are carefully examining Canada's claims of historical sovereignty over the Arctic in general and the Northwest Passage in particular," indicating that "Beijing does not want to affirm the accuracy or appropriateness of Canada's historical claims." Although he concedes that "the small number of scholars in China who consider these claims in detail seem largely to end up sympathetic with, and supportive of," the Canadian position, he reiterates that "the Chinese government itself does not seem ready to affirm Canadian Arctic sovereignty." Accordingly, he stresses that "Canada needs to be on its guard against Chinese attempts to water down Canada's Arctic sovereignty and should strengthen cooperation with democratic Arctic states for the security and stability of the region."<sup>78</sup> Ironically, a closer look at some of the Chinese statements that Canadian scholars point to as questioning Canadian sovereignty suggests that Chinese commentators are often simply citing the work of those same Canadian scholars in making their case. Accordingly, there is a circular logic at work when commentators point to vulnerabilities in Canada's position and then, when others reference these potential vulnerabilities, use this as proof that their concerns are warranted.

Contrary to these hawkish perspectives, China is unlikely to challenge either Canada's assertion that the waters of its Arctic Archipelago constitute historic internal waters or the validity of its straight baselines. In the first instance, despite China's interests in Arctic shipping lanes, these are secondary to its broader interests as a coastal state. In particular, its perspective on the Qiongzhou Strait separating Hainan Island from the Chinese mainland is similar to Canada's perspective on the Northwest Passage. Furthermore,

China (and indeed all East Asian states) have made straight baseline claims based on a liberal interpretation of article VII of the LOSC.<sup>79</sup> China's claim to the South China Sea is particularly contentious. Marked by the "nine-dashed line," China has implied that these waters are territorial, although what Beijing means by "territorial" does not appear to conform to any standard maritime regime under international law.<sup>80</sup>

As Lincoln Flake points out, American and Chinese navigational interests in the Arctic are unlikely to combine to challenge the Canadian position. Not only would such a challenge call into question China's own maritime position, it would also conflict too starkly with the overall anti-US narrative developing in Sino-Russian relations. Similarly, US support for its Asian allies on navigation in the South China Sea precludes cooperation with Beijing on the issue in the Arctic.<sup>81</sup> As such, China is unlikely to challenge Canada's position, unless Canada joined the United States in its comprehensive opposition to China's own maritime claims. Conversations with Chinese academics support this perspective and reinforce the probability that China will respect well established maritime claims in the Arctic. Even Guo Peiqing, who has argued for a robust assertion of China's rights in the Arctic, emphasizes that China will conduct its research in compliance with Arctic state jurisdictions.<sup>82</sup>

Concerns about China's desire for influence and potential for revisionist action in the Arctic must ultimately be weighed against one of its overriding diplomatic imperatives: its absolute respect for a state's right to manage its affairs within its own jurisdiction. China has long been wary of foreign powers meddling in its own internal affairs and has often spoken out against foreign intervention in what it sees as either internal conflicts or issues (see for example its positions regarding the Syrian and Libyan civil wars). This strongly Westphalian position on state sovereignty would therefore make it awkward for China to question Canadian activity within an area over which Canada claims complete jurisdiction. In the 2012 edition of the *Arctic Yearbook*, Yang Jian, the vice president of the Shanghai Institutes for International Studies, explained China's position as follows: "For China, Arctic affairs can be divided into those of a regional nature and those of global implications. It has been China's position that the former should be properly resolved through negotiation between countries of the region. China respects the sovereignty and sovereign rights of Arctic countries, and hopes that they can collaborate with each other and peacefully resolve their disputes over territory and sovereignty."<sup>83</sup> This reflects what Linda Jakobson and Jingchao Peng described

as the more “subdued” public messaging from Chinese Arctic scholars since 2011, which also fits with China’s “preoccupation with staunchly defending its perceived rights in the South and East China seas.”<sup>84</sup> Thus while China’s aggressive stance in its own backyard is sometimes held up as a reason to worry about the country’s activities in the Arctic, a more grounded appreciation of Beijing’s foreign policy orientation suggests just the opposite. The same sovereignty concerns that motivate belligerence in the South and in East China seas predict accommodation of Canada’s sovereignty interests in the Arctic.

While wide-scale, transit shipping is unlikely in the foreseeable future, and China is unlikely to challenge or undermine Canadian sovereignty, the question should be asked: might an increase in Chinese Arctic activity inadvertently damage the Canadian legal position? In a 2003 article in the *International Journal*, Rob Huebert theorized that even a single ship moving through Canadian waters without permission could create a precedent that would seriously damage Canada’s legal position by demonstrating that the Northwest Passage can be used as an international strait.<sup>85</sup> A conflict with a vessel refusing to request such permission might quickly expand if that ship’s flag country were forced to support its right to transit those waters and therefore to challenge Canada’s legal position.<sup>86</sup> Huebert’s argument was made in response to a 2003 article by Franklyn Griffiths in which Griffiths downplayed the potential danger posed by Arctic shipping.<sup>87</sup>

In the decade since this debate began in earnest, the evidence indicates that Griffiths’ evaluation of the danger was the more prescient. There have been no rogue transits of the Northwest Passage and those ships that have made the passage have complied with Canadian laws and regulations or else have been seized by the RCMP. Commercial operators, unlike certain governments (in particular the United States), gain nothing from refusing to recognize Canadian sovereignty. To this point they have followed the path of least resistance when operating in Canadian waters – namely, accepting Canadian jurisdiction – and there is every indication that they will continue to do so.<sup>88</sup>

With respect to Chinese vessels, Huebert’s fearful scenario that a state government will feel the need to back a ship carrying its flag in a dispute with Canada seems unlikely to materialize. China’s own maritime claims make it unlikely that Beijing would see any advantage to disputing Canada’s sovereignty position in the Arctic. As such, it is difficult to see the Chinese

government challenging that sovereignty on behalf of a Chinese flagged merchant vessel.

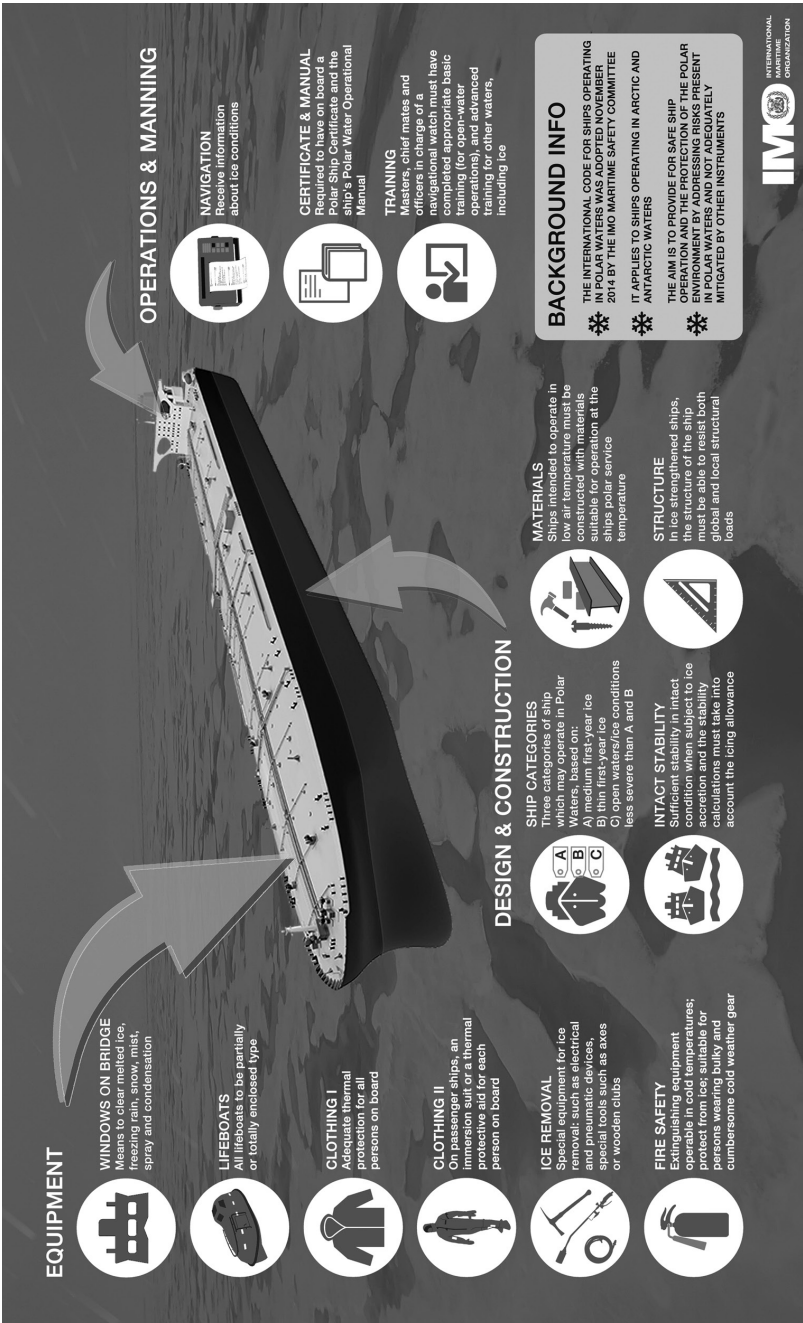
Even if the Chinese government were to deem the Northwest Passage a vital shipping route, conflict is hard to envisage. Canada has long declared its support for shipping through the Arctic Archipelago, as long as it complies with Canadian laws and regulations.<sup>89</sup> The Canadian government provides search and rescue support, ice and weather reporting services, and other assistance to foreign vessels. There is no reason for the Chinese government to challenge Canadian sovereignty when Canada is prepared to encourage and assist shipping that complies with its reasonable regulatory regime.

Furthermore, in the event that Chinese ships begin to ply the waters of the Northwest Passage, either regularly or sporadically, these voyages may in fact support Canada's sovereignty position. Even if the companies involved are not asked to explicitly recognize Canadian sovereignty, but merely to comply with pollution control regulations, mandatory reporting regimes, and other Canadian regulations, the net effect would be the same. While the United States may persist in viewing the Northwest Passage as an international strait in principle, if the passage becomes viable as a transpolar route, the use of those waters by US government vessels will be substantially less than the commercial transits by Chinese and other international shippers. China, for reasons discussed and for simple convenience, is more likely to accept Canadian sovereignty and jurisdiction than to officially side with the Americans.<sup>90</sup>

## China's Role in the Development of International Arctic Shipping

In the future, the governance of Arctic shipping will require an internationalist approach. While the Arctic states have the right to exercise jurisdiction within their internal and territorial waters, that control does not extend into the Polar Basin where shipping routes may also emerge.<sup>91</sup> It is clearly in Canada's interest to see uniform shipping standards adhered to by all ships operating in the circumpolar Arctic, and this means Chinese cooperation. Canada has spent more than two decades spearheading an effort by a group of countries, classification societies, and industry experts seeking to establish and implement a harmonious set of rules for the construction and operation of ships transiting ice-covered waters.<sup>92</sup> In November 2014, these years of effort culminated in the establishment of the Polar Code, a set of rules





3.9 What Does the Polar Code Mean for Ship Safety? International Maritime Organization.



promulgated by the International Maritime Organization covering certification, design, equipment systems, operations, environmental protection, and training for Arctic navigation. These rules provide an added layer of environmental protection and safety in Arctic waters outside of state jurisdiction and simplify requirements for shippers moving between Arctic jurisdictions.<sup>93</sup> As a major shipping nation, China's adherence to the Polar Code is vital to preserving the Arctic marine environment. As such, working with China and the broader international community to develop and regulate Arctic shipping is, and will continue to be, essential.

Developing this cooperative approach should be possible, given China's stated intention to participate in the cooperative promotion of Arctic shipping. Speaking in Norway in February 2013, for instance, Ambassador Zhao Jun highlighted his country's keen interest in building cooperation between the Barents Region and non-Arctic states as Arctic waterways open.<sup>94</sup> Chinese scholars and officials have expressed similar sentiments in the understanding that cooperation will be necessary for China to obtain a position in Arctic affairs. Zhao continued to say that "it is natural for China to participate in discussions on Arctic issues, as a potential user of Arctic waterways ... Cooperation is the key to dealing with Arctic issues."<sup>95</sup>

Provided that Chinese shipping is not unfairly discriminated against or denied access to emerging sea routes without reasonable grounds, Beijing is likely to accept international safety standards for Arctic vessels. Professor Guo Peiqing sums up China's preferred view of the Arctic, saying that "circumpolar nations have to understand that Arctic affairs are not only regional issues but also international ones."<sup>96</sup> That China accepts circumpolar affairs as international should naturally lead to a greater willingness to accept and encourage others to accept the sort of global approach to Arctic safety represented by the IMO Polar Code. By extension, this logic supports indications that China recognizes that "Arctic countries, with a larger stake in Arctic-related issues, should play a more important role in Arctic affairs, such as marine environment protection, and marine search and rescue."<sup>97</sup>

## Conclusions

Over the next decade, China will continue to express interest in the possibility of new Arctic shipping routes. In the distant future, this may even mean the use of the Northwest Passage. In the short to medium term, however,

environmental conditions and a dearth of infrastructure are likely to keep these options “on ice.” Instead, the Northern Sea Route will almost certainly elicit the most Chinese attention over the next decade – yet even that traffic is likely to be relatively limited.

It is possible that Chinese shipping companies will seek to use the Northwest Passage for irregular transits, possibly in support of local resource exploration or export, and, while China has not publically accepted the Canadian government’s position that the waters of the Arctic Archipelago constitute historic internal waters, it has not denied this position either. Given Chinese claims to the Qiongzhou Strait and the entire South China Sea, it is simply not in Beijing’s interest to challenge the Canadian claim. If Chinese shipping plies Canada’s Arctic waters it is likely to be destinational, and proceed in compliance with Canadian rules and regulations. Far from damaging Canadian sovereignty, such voyages could strengthen it by building an important precedent of foreign flagged ships operating in the Arctic Archipelago and accepting them as internal waters. As a major shipbuilder and commercial maritime power, China will certainly play an important role in the future of Arctic shipping. All signs indicate that it is ready and willing to cooperate with the international community to ensure that potential polar sea lanes are managed and operated with respect to international law.<sup>98</sup>

