

## Just in time: Will Putin's revitalized Northern Sea Route reorder global shipping?

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### Keywords

Arctic, Northern Sea Route, Putin, Russia

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### Abstract

*This paper examines Russia's Arctic Strategy, in general, and the development of the Northern Sea Route, in particular. The current Russian regime regards the successful development of the Northern Sea Route (NSR) as the linchpin of its Arctic endeavors and the harbinger of Russia's economic future, focusing upon not only creating a faster and cheaper shipping route from Asia to Europe, but also spiriting out to world markets the vast fossil fuel and mineral deposits that lie in Russia's frozen north. After discussing recent factors causing Russia's leaders to invest significant resources in its Arctic region and the novel transportation artery, we then focus upon recent steps made toward building out the NSR. The article concludes with an examination of significant problems plaguing the route's development and provides a tentative assessment of the project's overall soundness.*

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### Introduction

With the onset of climate change, the Arctic region has become ever more prominent as a subject of both environmental concern and international economic development. Both Arctic and non-Arctic states alike have begun to focus greater attention and energy toward understanding this complex region, the likely impact of warming upon it, as well as its future potential in the international economic system.

Foremost among these states has been the Russian Federation, an Arctic state with a lengthy history of economic development in its Far North, both during the communist and late tsarist periods. Since at least 2001, the Putin regime has demonstrated renewed vigor and interest in the region, developing a multi-faceted Arctic policy that serves a variety of economic, developmental, as well as strategic goals (Laruelle, 2014).

This article examines Russia's strategy for its Arctic regions, with special focus being placed upon the development of the Northern Sea Route (NSR). The paper will discuss the economic, political, and strategic rationales for investing in this novel transport route, its potential for re-directing international cargo transport, its role in the developing Russia-China relationship, as well as the challenges the Putin regime must surmount to bring its goals in the Arctic region to fruition.

### **Russia's Arctic Strategy**

Almost two decades ago, the newly elected Putin regime signalled its interest in developing its Arctic regions with the 2001 submission of Russian claims to offshore shelf regions before the United Nations Commission on the Limitation of the Continental Shelf (Baker, 2020). Since that time, and especially after the dramatic planting of the Russian tri-color on the North Pole seabed in 2007, the Putin regime has directed great attention and substantial investments toward economic development in Russia's Far North.

Russia's increasing interest in its Arctic regions was spurred on by rapidly changing climatic conditions. According to the United Nation's Intergovernmental Panel on Climate Change (IPCC), during the 1979-2012 period, the average loss of Arctic Sea ice approached between 3.5 percent and 4.1 percent per decade (Working Group I, 2013). Indeed, ice cover in the Arctic in September 2018 was more than 40% lower than that in 1980 (Astrasheuskaya, 2019). A more recent analysis predicts that there will be a "functionally ice-free" Arctic by 2044, if present trends continue (Strong, 2019). As well, the U.N. Environment Programme recently issued its latest assessment of the overall global warming trend, arguing that if nothing more is done to reduce greenhouse gas emissions, the Earth will warm by 3.2 degrees Celsius by the end of this century (Mortillaro, 2019).

Although such changes will create huge challenges for coastal populations, the degradation of housing, industrial and transport infrastructure in permafrost regions, and marine life globally, it will also allow for the exploitation of fossil fuel and mineral deposits in previously untapped onshore and offshore Arctic regions of Russia (Soveshchanie o Razviti Severnogo, 2020). To be sure, although Russia has been active in oil and gas exploration in its Far North since at least the 1970s, there has been heightened interest in further exploration since the publication in 2008 of a U.S. Geological Survey report that indicated perhaps 13 percent of the world's natural gas reserves and 30 percent of its oil reserves lay undisturbed in Arctic offshore areas, with Russia's shelf perhaps containing a majority of these potential reserves (Bird, et al, 2008).

Likewise, the majority of the world's untapped reserves of gold, platinum, nickel, cobalt, copper, and significant deposits of other rare earth metals, are located in the frozen Arctic, especially in those regions claimed by Canada and Russia.

However, in order to gain access to such deposits, and to export the riches to world markets, the linchpin of Russia's Arctic Strategy has been to restore Russia's historic transit corridor in the Far North, i.e., the famed "Northeast Passage," or as Russia prefers, the Northern Sea Route (NSR). This route links the northern Pacific with the northern Atlantic, hugging the Russian Arctic shore and traversing six seas, from east to west, the Bering, Chukotskoye, the Vostochno-Sibirskoye, the Laptev, the Kara and the Barents (Natsional'niy Atlas, 2017). Once fully developed, not only will the NSR allow Russia to export natural resources to destinations both east and west, but it will also create conditions for a more extensive development of offshore areas, as well as onshore areas within Russia, via the north-flowing, great Siberian rivers of Russia, the Ob', the Yenisei, the Angarsk, and the Lena. Ultimately, it is hoped that a fully developed NSR will lead to a not insignificant reorientation in international trade, as the northern route from east to west is significantly shorter than linking Asia and Europe through the Suez Canal. As well, as Russia and China have forged a strategic partnership in numerous areas of their relationship, Russia has sought greater Chinese investment in the NSR, as a vital link in China's "One Belt, One Road" global initiative, a result that would tie the two great powers ever closer (China's Arctic Policy, 2018).

### **Russia's Northern Sea Route**

Russia's "Severnii Morskoi Put'," or Northern Sea Route (NSR), is a transit route that was established long ago, but was little used internationally. The National Atlas of the Arctic specifies the route spans 5,600 kilometers, from the Bering Strait, in close proximity to Russia's Big Diomedes island, westward to

the point at which the Kara Straits, which separates the Russian mainland from the Novaya Zemlya archipelago, opens into the Barents Sea (Natsional'niy Atlas, 2017). Russia's icebreakers, the first being the Yermak built in 1899, intermittently plied portions of Russia's Arctic waters in the early 20<sup>th</sup> century. However, it was not until Stalin's heavy industrialization drive gained full steam in the early 1930s that the route was fully opened for regular transit. Indeed, in 1932, the Main Administration for the Northern Sea Route (Sevmorput) was established; the following year, the *Chelyuskin* was the first steamer to make transit from the Barents Sea to the Pacific. The route was mainly used for inter-regional transport of minerals, goods, and machinery between Russia's far-flung new industrial and mining cities and towns in its Far North, as well as to Russia's industrial heartland (Josephson, 2014). It became even more important to the Russians during World War II and into the 1950s, as it developed nuclear-powered icebreakers, the first being the *Lenin* in 1957 (Astrasheuskaya, 2019). Thereafter, the NSR slowly declined in usage, as the Soviet economic planning system began to show signs of growing weakness. With perestroika's economic emphasis upon profitability, cargo tonnage slowed further. With the collapse of the economic system in the early 1990s, the NSR was used little more than to re-supply forlorn settlements in the dying north; cargo volumes collapsed by 90% compared to the totals of the 1980s.

During Putin's first two terms in office, little tangible investment was made in the NSR; Russia's focus was at this time centered on making the economic adjustments necessary to pull the country's economy out of Yeltsin-era doldrums, as well as reinvigorating Russia's armed forces. As Dmitry Medvedev exchanged offices with now-Prime Minister Putin in 2008, Russia unveiled its first Arctic Strategy, which was focused mainly upon preparatory steps necessary to develop Russia's Far Northern territories (Ob Osnovakh, 2008). When Putin returned to the presidency in 2012, the Russian government followed up with a more detailed plan for the region, in its second Arctic Strategy of 2013 (O Strategii, 2013). This document focused more on the infrastructural needs of Russia's Arctic, especially that needed to develop the NSR for commercial and profitable activities, a route that would be approximately 5,000 kilometers shorter – and 11 days faster – than the alternative route from Asia to Europe through the Suez Canal. After the Ukraine crisis unfolded in 2014 – and the break with the West ensued, culminating in crippling sanctions focusing upon disallowing Western oil exploration or investment in offshore Russian Arctic areas – Putin's government apparently redoubled its efforts toward its Arctic holdings, seeing those regions as Russia's economic future. As well, the government apparently now was convinced that Western cooperation in Russia's Far North development plans was no longer possible; as a result, the government looked eastward to China for investment possibilities (Shtanov, 2017).

Still, in the next few years, Russia regularly sent ships along the NSR bound for Asian or European ports, hoping to demonstrate the utility and efficacy of the NSR, as an alternative to the Suez corridor. Other countries, particularly China, also did the same, thereby testing the route as a potential substitute. Maersk, the Danish shipping giant, ran a trial shipment through the NSR in August 2018 – the first ever of a container ship, carrying metals, electronics, and fish (Astrasheuskaya, 2019). Another 19 countries did the same, carrying more than 20 million tons of cargo that year. The following year shipped tonnage along the NSR increased by more than 50%, to 31.5 million tons. And, in 2020, despite the coronavirus pandemic and the resultant decline in global economic activity, shipping volumes along the NSR are expected to exceed that in 2019 by approximately 3%, or 32.4 million tons (Staalesen, 2020).

While that figure is only approximately ten days' worth of global shipping tonnage that traverses the Suez Canal – and much of it is Russian LNG produced at the Yamal LNG plant and transported to Asian and European markets – the Russian government has plans to dramatically increase that tonnage amount in the next few years. Indeed, in October 2020, the Russian leadership ratified its third Arctic Strategy document; a more detailed document, at 37 pages, the decree signed by President Putin envisions Russia's development plans to 2035, with 14 target indicator metrics assigned to gauge progress toward

completion. And fixed capital investments in the Arctic zone in general were 7.6% of the federal budget, and these amounts are set to increase in future, despite the fact that Russia's Arctic population accounts for only a little more than 2.5% of its total population. (O Strategii, 2020).

The main near-term target that is trumpeted frequently is that cargo transiting the NSR by 2024 – the end date of Putin's current term in office – will surpass 80 million tons; if achieved, this would represent a 246% increase in cargo in just four years. What is more, by 2035, the government is planning thereafter for a 62% increase in cargo tonnage along the NSR, reaching 130 million tons per annum. Despite these heady goals, the 2020 Arctic Strategy decree warns that the main hazard to their realization is the "lag in the rate of development of the NSR, the construction of a new class of icebreakers, and search and rescue vehicles, compared with the rate of development of economic projects in the Arctic zone." (O Strategii, 2020).

Notwithstanding such problems, Russia's leadership is focused upon prioritizing its Arctic region, both in terms of economic development projects, and concomitant NSR infrastructure. Eighty percent of Russia's known natural gas deposits and 17% of its oil deposits are found in the Arctic zone. As well, currently approximately 11% of Russia's GNP is produced in the Arctic regions, while almost one-fourth of its exports. These figures are set to grow even further, given recent announcements. Russia has begun building two major Arctic terminals, one at either end of the NSR, to offload LNG produced at the already-developed Yamal LNG plants and several LNG plants being built on the Gydan peninsula. The new Arctic terminals on the Kola and Kamchatka peninsulas will make Russia's Arctic LNG production more efficient, as currently the ice-protected tankers that shuttle LNG from the Yamal peninsula are much more expensive to operate than regular tankers; hence, these new terminal developments will allow off-loading of LNG from ice-protected tankers to conventional LNG tankers that will ship gas to their destinations in Europe and China. (Ob Investitsionnom Proekte, 2019).

Additionally, several dozen new oil rigs are slated to be sunk in the remote Taimyr peninsula, allowing Rosneft', the main state oil company headed by Putin's close confidante, Igor Sechin, to transfer up to 30 million tons of oil from these Vostok Oil fields to distant markets by 2024, all along the NSR. Rosneft's Sechin claims that eventually the volume will increase to 100 million tons of oil each year, while the project will also see the development of port facilities on the Arctic coast, two airfields to service production, a 770-mile pipeline, and approximately 100,000 jobs (Vstrecha s Glavoi, 2020).

Related to this, Vostok Coal announced plans to send 30 million tons of coal from its Taimyr deposits along the NSR.

### **Related Developments**

Besides conducting geodetic, hydrographic and bathymetric surveys, carrying out additional research on regional climate change, water currents, and ice floes, establishing required telecommunication links, refurbishing older port facilities and creating entirely new ports, dredging along the mouths of the Ob' and Yenisey rivers, and developing needed search and rescue infrastructure along the entire NSR, the Russian government has launched numerous endeavors that are affiliated with – and serve to enhance – the Northern Sea Route's development.

Having submitted initial claims on Russia's continental shelf in 2001, Moscow was required by the U.N.'s Commission on the Limitation of the Continental Shelf to submit additional data to support its expanded claim, which covets 1.2 million square kilometers beyond the 200 nautical mile limit that all coastal states may claim. After years of additional testing, the Russian government submitted a revised claim in 2015. Though the rival claims among Denmark, Canada, and Russia for portions of the Central Arctic Ocean's continental shelf are still being considered by the UN CLCS, Russia did score a recent success at the venue, as the body has argued that the underwater regions at the limits of the Russia's claim

are geologically similar to its own continental shelf and geologic structures on the continents of Europe and Asia (Sevunts, 2019). A success at the UN CLCS would not only strengthen Russia's hand over ownership of subsurface ore and fossil fuel deposits in the Central Arctic Ocean, but it would also assist somewhat in its attempt to claim that the full extent of the NSR is Russia's territorial waters, and hence, Russia retains the right to exclude foreign ships from transiting the route.

Despite the recent warming sea temperatures which have made ice-free transit through the NSR possible for more than the normal three months each summer, Russia is making headway in adding a powerful new generation of heavy nuclear-powered icebreakers to its existing fleet of 42 icebreakers now. Project 22220 began its design stages in 2009, while construction of the first icebreaker in this LK-60Ya class began in 2012. The *Arktika* was commissioned and took its maiden test voyage in Arctic waters in late 2020, having suffered months of construction delay. Four more LK-60Ya icebreakers, with sixty megawatts of propulsion power each, are scheduled for delivery in 2021 (*Sibir*), 2022 (*Ural*), 2025 (*Yakutiya*), and 2027 (*Chukotka*). By then, Russia's heavy nuclear-powered icebreakers will number 13 (compared with four now), with dozens more diesel-powered icebreakers in service, and an entirely new advanced class of icebreaker – the LK-120Ya "Lider," with 120 megawatts of propulsion power -- coming online beginning in 2030 (Isachenkov, 2019). For comparison, by that time the U.S. may have a total of eight icebreakers in service.

To carry cargo from the internal regions of Russia to the NSR, Putin's government is also proceeding ahead with plans to construct numerous rail and river projects in the Far North. The Belkomur Railway will link the port of Arkhangelsk on the White Sea to the Urals city of Perm, and onward to the Trans-Siberian Railway. More ambitious is the Northern Latitudinal Railway (NLR), a railway begun in Stalin's time but never completed. This 700 kilometer railway links Salekhard with Noviy Urengoy deep in the Yamalo-Nenets Autonomous Region of Russia, where significant deposits of oil and natural gas, as well as other ferrous and non-ferrous minerals are found, on Russia's Yamal, Gydan, and Taimyr peninsulas. The railway will facilitate shipping of such natural resources to the NSR via existing trunk lines, and via expansion plans for cargo traffic along the Ob', Nadym, and eventually, the Yenisey rivers, once the second phase of the NLR is completed to Dudinka on the Yenisey. Additionally, under development is the upgrade of existing roads, railways, and river infrastructure serving three arteries – the Urumqi-Tyumen, the Beijing-Ulaanbaatar-Irkutsk, and the Dalian-Harbin-Yakutsk – connecting East Asia to Russia's great Siberian rivers, the Ob', Yenisey, and Lena, respectively (Kharlov, 2020).

Lastly, and most alarmingly to many in the West, has been the Kremlin's buildup of military force structures in the Russian Arctic. In 2019, Russia established a Northern Joint Strategic Command, whose main focus is patrolling and defending the air, waters, and subsurface areas in the Russian Arctic, from the Barents Sea to the Bering Strait. In addition, Russia has added or refurbished over fifty airfields, radar and rescue stations along its northern border or on far northern islands like Novaya Zemlya, Severnaya Zemlya, and the East Siberian Islands, while also opening sixteen deep-water ports in the region. Moreover, the Russian air force has added advanced coastal defense cruise missile platforms in the Kola and Chukchi peninsulas, close to Scandinavian and Alaskan borders, while the Russian Navy has built a state-of-the-art logistics center in Arkhangelsk to store, handle, and transmit equipment to far-flung northern bases. In addition, the Russian Army has deployed two 10,000-man Arctic brigades in the north, located in the Kola and Yamal peninsulas. As well, the FSB, one of the successor security organs to the Soviet KGB, has created numerous bases and outposts along Russia's northern frontier (Laruelle, 2020). To be sure, these military forward deployments are meant to demonstrate the Kremlin's intention to defend Russia's sovereign interests in the Arctic region; at the same time, however, much of these structures can support a dual mission, i.e., not only defending the homeland but also carrying out search and rescue missions and tracking shipping along the Northern Sea Route, as well as protecting vital



economic infrastructure, such as the Yamal LNG plant. Thus, Russian militarization of the Arctic is genuine, but one must also consider that Russia needs strategic stability in its Far North, too, if its investments in the NSR are to pay off.

Hence, all of the aforementioned associated developments support the Kremlin's goal of "mastering" the Arctic, harvesting its resources, and ultimately utilizing the refurbished Northern Sea Route to not only carry these resources to markets in Europe and Asia but also to alter global shipping patterns. This is why Arctic projects, including the NSR, will soon receive up to one-tenth of all Russian capital investment (Astrasheuskaya, 2019). It is also why President Putin recently declared projects supporting the development of the NSR as one of Russia's main National Projects, saying, "We need to make the Northern Sea Route safe and commercially feasible" (Isachenkov, 2019).

### Problems and Prospects

To date, the Putin regime has demonstrated its intention to develop the NSR into a commercially viable and efficient alternative for global shipping. However, despite the regime's attempts to develop the route in the near- and medium-term, a number of fundamental problems affect its timely development.

For one, levels of financing from the Russian government and private Russian sources have been insufficient to keep the project on schedule. Even President Putin's excellent relationship with China's President Xi has not benefited the NSR's development much, despite the "One Belt, One Road" initiative that Xi has trumpeted since 2012 and Chinese stated objectives to help assist in the development of what they call the "Polar Silk Road." Instead, the Chinese have invested primarily in energy projects in Russia's Arctic, the best examples being the 29.9% share Beijing owns in the Yamal LNG facilities and the 20% stake in the Arctic LNG-2 project. As a result, the Russians have looked elsewhere for investment resources, but as of yet, South Korea, Japan, Singapore, India, and Saudi Arabia have also chosen to eschew investment in helping Russia build out the NSR and instead are eyeing potential stakes in Russian Arctic energy projects. Sanctions against Western investment in Arctic oil and pipeline projects, in place since 2014, have also hurt Russia's onshore and offshore Arctic exploration, which in turn also has an impact upon bringing the NSR to fruition. Despite these complications, as well as the coronavirus pandemic which has throttled the Russian economy, in general, and Russia's Arctic developments, in particular, the recent October 2020 decree "On the Strategic Development of the Arctic Zone to 2035" instructs the government agencies responsible for redoubling efforts to locate additional investment avenues for Russia's Arctic endeavors, including that of the Northern Sea Route.

Additionally, the current availability of adequate search and rescue (SAR) facilities, telecommunications links, and deep-water port facilities, and adequate provisioning in all of these realms, is not anticipated for the near- or medium-term. For example, the Russian Ministry of Transport was scheduled to enter into contracts for the delivery of 16 ice-class search and rescue vehicles beginning in 2020; however, Rosmorechflot, a subsidiary organ of the Transport Ministry, has recently revealed that the first of these SAR vehicles will be commissioned for service in 2025 (Yuriy Trutnev, 2020). Added to this is the significant delays already witnessed with regard to the delivery of new ships from the LK-60Ya icebreaker class; the *Arktika* – the first ship in class – was to be delivered in 2017, and yet only in November 2020 did it take its maiden voyage, which had to be aborted, apparently due to mechanical problems (Makichuk, 2020). This does not augur well for the full rollout of all five LK-60Ya ships; the last of these was originally slated for service in 2025, but an actual beginning service date of 2030 or beyond is certainly within reason for the *Chukotka*. Added to these facility and production delays is the uncertainty surrounding rival claims that Russia and outside powers have concerning the NSR (Kharlov, 2020). In short, in Russia's view, much of the NSR is located within its 12-mile territorial sea; those areas of the NSR that lie beyond the coastal state's territorial sea are covered under the "ice-covered areas" portion (Article

234) of the U.N. Convention on the Law of the Sea, and hence, fall under Russia's exclusive jurisdiction and regulatory penumbra. Of course, many other states, the United States, in particular, claim those waters that lie beyond Russia's 12-mile territorial control, are by definition, international waters and thus do not require Russian permission for transit.

Moreover, although the NSR is about 5,000 kilometers shorter than the Suez route, certain geographical and climatic conditions make the route arduous and potentially hazardous. For one, compared with the much deeper waters found in the Kara and Barents seas, the Laptev and East Siberian Seas are much shallower, with more than 50% of the area marked by depths of 20-25 meters at most. The waters to the east in the Chukchi Sea are deeper, but only marginally so. As well, five different shallow and lengthy straits are found along the NSR, with numerous undersea knolls, mounds, spurs, and shoals making navigation difficult (International Bathymetric, 2012). Compounding these issues are the extreme water and air temperatures and unpredictable ice floes, in a region that is exceptionally remote from even small population centers.

Thus, the aforementioned factors taken together may limit the use of the route to ships carrying fossil fuels and minerals, as container shipping requires greater certainty for just-in-time deliveries of consumer durables and goods. Another factor limiting the use of the route will be the lack of adequately priced shipping insurance, as the risks to transport through this extreme, under-utilized environment have not been fully assessed.

Hence, under these conditions, will the enormous costs of fully developing the Northern Sea Route be worth the gamble the Kremlin has undertaken? The implementation delays alone – due to financing shortfalls and icebreaker design and construction delays – may substantially lessen the project's overall financial strength or solvency. In addition, should the warming trend of the last two years continue unabated, will the significant investments being made in two new generations of icebreakers become necessary? Additionally, if warming accelerates, the usefulness of the NSR – and its internal rate of return – may be negligible, should a less costly and faster Central Arctic or Transpolar Route open up for much of the year.

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