

The Northern Sea Route: A review of recent developments

Arild MOE¹

¹*Fridtjof Nansen Institute, Lysaker, Norway*

(Received September 24, 2022; Revised manuscript accepted October 31, 2022)

Abstract

The Russian president and government have over the last 10-12 years expressed high ambitions for development of NSR. International transit shipping has not taken off, but destination shipping has increased radically in recent years, primarily transportation of liquefied natural gas from the Yamal peninsula. Organization of the shipping activities initially involved consortia of international shipping companies, but Russian policies have later taken a protectionist direction. Russia introduced regulations mandating that all oil, liquefied natural gas and coal loaded from within the Northern Sea Route area can only be transported on Russian-flagged ships; and from 2019 transportation of hydrocarbons out of the NSR area would be reserved for vessels built in Russia. The administration of the sea route has recently been changed; all key functions are now concentrated in Rosatom – the mother organization of the nuclear icebreaker fleet. The war in Ukraine creates uncertainty about further development of the sea route as very much depends on the fate of the hydrocarbon projects expected to be the base load of traffic. Technology sanctions, investment restrictions and limitations on market access are likely to slow down their development. This is also likely to affect the very expansive icebreaker construction program.

Key words: Arctic, shipping, LNG, Rosatom, icebreakers, Russia

1. Introduction

The Northern Sea Route (NSR) is the Russian term for the waterways north of Siberia. They form a part of the Northeast passage (NWP), which is the historical term for the Arctic Sea passage between the Atlantic and the Pacific. Whereas NWP is a loose term, without strict geographical boundaries, the NSR is now precisely defined in Russian law since 2013 as an area starting with the entry to the Kara Sea and stretching all the way to the Bering Straits. Northwards it extends to 200 nautical miles from the coast (Fig. 1). Russia maintains it has a right to manage traffic in this area based on article 234 of the Law of the Sea Convention, as well as historical rights. The Russian position is contested by some other states, notably the United States.



Fig. 1 Map of the Northern Sea Route

In this article I will discuss recent developments in the use of NSR and the administration of the sea route, as well as briefly assess outlook in light of Russia's war in Ukraine.

2. The revival of NSR

The Russian president and government have over the last 10-12 years expressed high ambitions for development of NSR and the administration of the sea route underwent a significant overhaul in 2010-2013 designed to attract traffic. Application procedures were simplified, and icebreaker escort fees became negotiable (Solski, 2020).

For some time, there were expectations that international transit shipping would take off. But it did not happen. Other developments were more encouraging, though. Several large extraction projects in northwestern Siberia were initiated, requiring transportation by sea of heavy machinery and materials – and shipment of resources out of the region when the projects came on stream. This is destination shipping. With the successful start of the Novoportovskoye oil project in 2016 and the Yamal-LNG project in 2017, total cargo volume on the NSR increased rapidly and has hovered around thirty million tons the last few years (Gunnarsson & Moe, 2021) (Fig. 2).

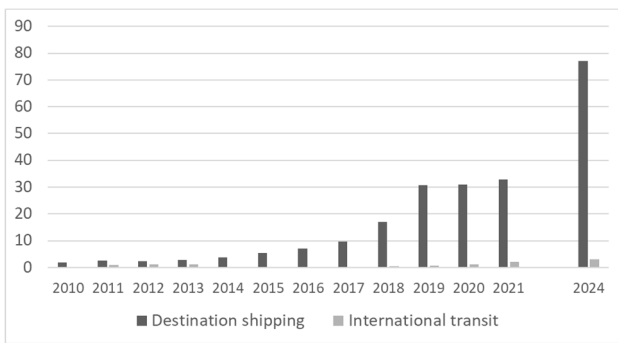


Fig. 2 NSR Cargo volume 2010-2021 and target 2024. Million tons.

The owners of the Yamal LNG plant with the Russian gas company Novatek in the lead set up a scheme where consortia of international shipping companies were invited to invest in icebreaking LNG carriers designed for Yamal LNG built in Korea against long term contracts for transportation of gas (Table 1).

Table 1: Icebreaking LNG carriers constructed for Yamal LNG

Name	Operator
Christoph de Margerie	Sovcomflot
Boris Vilkitsky	Dynagas
Vladimir Rusanov	MOL
Fedor Litke	Dynagas
Eduard Toll	Teekay
Rudolf Samoylovich	Teekay
Vladimir Vize	MOL
Georgiy Brusilov	Dynagas
Boris Davydov	Dynagas
Nikolay Zubkov	Dynagas
Nikolay Yevgenov	Teekay
Vladimir Voronin	Teekay
Nikolay Urvantsev	MOL
Georgiy Ushakov	Teekay
Yakov Gakkel	Teekay

(Source: Reuters)

The carriers are all of the same design;
 Capacity 170 000 m³ LNG,
 Length: 300 meters,
 Ice class: Arc7, can break 2.1 meters of ice.

Except the carrier operated and owned by Sovcomflot they are all owned by international shipping consortia where Chinese shipping companies are partners.

It looked like the development of Arctic LNG would become a truly international endeavour, since also the LNG plant itself had substantial foreign ownership shares (French and Chinese).

3. End of the international phase?

In 2018, Russia introduced regulations mandating that all oil, liquefied natural gas and coal loaded from within the Northern Sea Route area can only be transported on Russian-flagged ships to the first point of destination or transshipment. More restrictions were proposed soon after: From 2019 transportation of hydrocarbons out of the NSR area would be reserved for vessels built in Russia (Federal Law, 2017).

This was part of a concentrated effort to support the ailing Russian ship-building industry, as well as finding business for the giant shipyard Zvezda under construction in the Far East. It was, however, impossible to implement this policy in full at a time when the extracting companies needed a series of new carriers and tankers over a short period. Thus, exemptions were made, and Korean yards continued to play an important role. But the signal was clear. Russian shipping policies were becoming more protectionist.

4. A new boss for the NSR

Except for the LNG, the traffic development was not as brisk as Russian authorities hoped for, and this was one reason why the government searched for a new model for management of the sea route. It argued that better coordination of operations and investments was needed. After a protracted institutional battle, the State Russian nuclear power corporation – Rosatom, the mother organization of the nuclear icebreaking fleet – was named “infrastructure operator” of the NSR from 2019. (More detail in Moe, 2020a).

It was first decided that it should share responsibilities with the Ministry of Transport. The Ministry would be responsible for development of laws and regulations and control their implementation and also issue permits for entry to the sea route area. Rosatom would take control over current operation of the sea route, and, crucially, manage state property and assets in ports, in addition to the icebreakers. Disputes about the control of key activities such as navigational and hydrographical support continued, however. By August 2022, it appeared that Rosatom had won this battle completely and pushed aside the Ministry when it also took over the issuing of navigation permits. All functions will now be concentrated in one structure under Rosatom - The Main directorate of the Northern Sea Route – Glavsevmorput – same name as the state structure that governed NSR in the 1930s (Atomnaya energiya, 2022).

The aim of the NSR reform has been to increase harmonization and efficiency. A counter argument is that with the new structure there is a risk that Russia’s Arctic

economy will become even less transparent than it has been, with cross subsidization within the giant Rosatom, and that this will negatively affect economic effectiveness. Another question is the strength and independence of regulators.

But the last step in Rosatom's takeover of ministry functions was in fact justified by operational and safety issues. In November 2021, 24 ships were trapped in the ice, ostensibly due to poor coordination of permits, icebreaker assistance and instructions given to captains. Settlements and industrial projects suffered (Strana Rosatom, 2022).

Many will find it problematic that Rosatom is a de facto monopoly provider of icebreaker services as a business at the same time as it is the state authority. In addition, Atomflot is starting to offer freight services, in competition with ordinary shipping companies (Moe, 2020a).

5. Russian ambitions and the outlook

The ambitions for further growth in traffic has been high, crystallised in President Putin's 2018 declaration of transporting altogether 80 million tons of cargo on the NSR by 2024. Officially, the target is still to transport 120 million tons by 2030. The main component of this cargo base was expected to be LNG from a series of new projects in the vicinity of Yamal LNG plus a giant oil project – Vostok Oil – under development further east, near the Siberian shore.

After the Russian invasion of Ukraine with ensuing economic sanctions against Russia and further turmoil, the build-up looks impossible. LNG projects are already delayed because of technology sanctions; investment squeeze and uncertain market access is also expected to slow down industrial projects in the Russian Arctic. This also puts a question mark over the ambitious plans for renewal and expansion of the nuclear icebreaker fleet. As of 2022, five such icebreakers were in operation, two were under construction, one of them almost finished, concrete preparation for three more had been made, and plans for two more had been announced. The last three would be of the Leader model. It is a 120 mega-watt vessel, twice as strong as the most powerful icebreaker today. It has been designed with the objective of keeping the sea route open all year and facilitate LNG exports directly to Asia, also in the winter (Moe, 2020b). The icebreakers are very costly, if the outlook for hydrocarbon exports changes, the economics of the icebreaker program is undermined. But of course, also the need for new icebreakers will have to be reassessed.

References

- Atomnaya energiya (2022). В Росатоме создано Главное управление Северного морского пути - «Главсевморпуть» [In Rosatom a Main directorate for management of the Northern Sea Route has been created- Glavsevmorput] 5 August. <https://www.atomic-energy.ru/news/2022/08/05/127067?ysclid=18ag90zguc668828606>
- Federal Law (2017). "О внесении изменений в Кодекс торгового мореплавания Российской Федерации и признании утратившими силу отдельных положений законодательных актов Российской Федерации." [About amendments in the Code for merchant navigation and recognition of expiration of some provisions of legal acts of the Russian Federation] No. 460.F3. Rossiyskaya gazeta, 31 December. <https://rg.ru/2017/12/31/fz-460-dok.html>
- Gunnarsson, B., & Moe, A. (2021). Ten Years of International Shipping on the Northern Sea Route: Trends and Challenges. *Arctic Review*, 12, 4-30. <https://doi.org/10.23865/arctic.v12.2614>
- Moe, A. (2020a) A new Russian policy for the Northern Sea Route? State interests, key stakeholders and economic opportunities in changing times. *The Polar Journal*, 10:2, 209-227, DOI: 10.1080/2154896X.2020.1799611
- Moe, A. (2020b). Russian Policies for Development of the Northern Sea Route: An Assessment of Recent Developments and Implications for International Users. In Lawson Brigham et. al. (eds). *The Arctic in World Affairs: Will Great Power Politics Threaten Arctic Sustainability?* 2020 North Pacific Arctic Conference Proceedings. Published by Korea Maritime Institute, Busan, Republic of Korea and East-West Center, Honolulu.
- Solski, J. (2020). The Northern Sea Route in the 2010s: Development and Implementation of Relevant Law. *Arctic Review*, 11, 383-410. <https://doi.org/10.23865/arctic.v11.2374>
- Strana-Rosatom (2022). Главсевморпуть: новые возможности с опорой на исторический опыт [Glavsevmorput: New possibilities anchored in historical experience]. 7 July. <https://strana-rosatom.ru/2022/07/07/glavsevmorput-novye-vozmozhnosti-s-o/?ysclid=18a9ozfejr110177343>

Summary in Japanese

和文要約

北極海航路: 最近の現状

Arild MOE¹

¹ フリチョフ・ナンセン研究所、ノルウェー

ロシア政府が定める北極海航路(NSR)の現状概要を述べた。アトムフロートはNSRに係る全権をほぼ掌握するも砕氷船不足の問題は解消するに至らず、また、造船のロシア自前産業への移行を目指す政策には確たる進展がなく、砕氷LNG船団構成にも変化が見えない。ウクライナ問題を抱え、NSRの今後の見通しは定かではない。

Correspondence to: Arild Moe, amoe@fni.no

Copyright ©2023 The Okhotsk Sea & Polar Oceans Research Association. All rights reserved.