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THE NORTHERN SEA ROUTE: HISTORY, PROBLEMS AND PROSPECTS AS A NATIONAL AND INTERNATIONAL PROJECT

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Ludmila B. Aristova¹

Today, the Northern Sea Route (NSR) is the most important way to develop the Russian North, develop various areas of infrastructure in the Arctic regions, and develop minerals. The maritime transport system operating here is an important part of the entire economy of the North of the Russian Federation. Huge financial resources and the work of many generations of Russians have been invested in the development of the NSR. In the modern conditions of Russia's confrontation with the collective West, the NSR is becoming one of the most important routes in the world. A number of Asian countries are showing some interest in using the NSR, which is becoming an international integration project not only for the transit of goods, but also for the participation of friendly countries in joint infrastructure projects, mining, transport projects, environmental protection, scientific research in the Arctic, etc.

The article discusses the history and development of the NSR, the transportation of international and domestic goods, the participation of China and India in the work of the NSR, the development of the economy of the Arctic regions of Russia, the prospects and tasks of the NSR.

Keywords: International transport corridors, the Northern Sea Route, the Arctic, international transportation of China, India

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СЕВЕРНЫЙ МОРСКОЙ ПУТЬ: ИСТОРИЯ, ПРОБЛЕМЫ И ПЕРСПЕКТИВЫ КАК НАЦИОНАЛЬНОГО И МЕЖДУНАРОДНОГО ПРОЕКТА

Л. Б. Аристова

Сегодня Северный морской путь (СМП) — это важнейший способ освоения российского Севера, развития различных сфер инфраструктуры арктических районов, разработки полезных ископаемых. Действующая здесь морская транспортная система является важнейшей частью всей экономики Севера РФ. В развитие СМП вложены огромные финансовые средства, труд многих поколений россиян. В современных условиях противостояния России с коллективным Западом СМП становится одним из самых значимых маршрутов в мире. Целый ряд стран Азии проявляет определенный интерес к использованию СМП, который становится международным интеграционным проектом не только для транзита товаров, но и для

¹ Ludmila B. Aristova, PhD (Economics), Senior Research Fellow, Institute of Oriental Studies RAS, Moscow; aristova3@list.ru
Аристова Людмила Борисовна, кандидат экономических наук, старший научный сотрудник Отдела экономических исследований Института востоковедения РАН, Москва; aristova3@list.ru
ORCID: 0000-0001-7583-7452

участия дружественных стран в совместных инфраструктурных проектах, разработке полезных ископаемых, транспортных проектах, проектах в области охраны окружающей среды, научно-исследовательских работах по Арктике и др.

В статье рассматриваются история и пути развития СМП, перевозка международных и отечественных грузов, участие КНР, Индии в работе СМП, развитие экономики арктических районов России, перспективы и задачи СМП.

Ключевые слова: Международные транспортные коридоры, Северный морской путь, Арктика, международные перевозки КНР, Индия

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Since the beginning of the XXI century, various programs and concepts of the country's strategic development have been developed in Russia to boost the domestic economy. At an extended meeting with members of the Government of the Russian Federation, the Federal Assembly, and members of the Presidium of the State Council, Russian President Vladimir Putin announced the launch of priority national projects [Druzhinin, 2019].

Since then, new programs and tasks have been developed: demography, healthcare, tourism and the hospitality industry, education (the emergence of modern schools in rural regions), small and medium-sized enterprises, housing and urban environment, culture, safe high-quality roads, ecology, science and universities, digital economy, labor productivity, development of the agro-industrial complex, international cooperation and exports, modernization of transport infrastructure. All of them are designed to increase the level of economic development of Russia, improve the lives of the population in the face of anti-Russian sanctions and military actions.

Russia is the largest country in the world in terms of territory — almost 10 thousand km from West to East. Modernization of all modes of transport will ensure interaction between regions, fast cargo delivery, transit transportation. The state program «Development of the transport system»² includes work in railway transport, construction and reconstruction of seaports, airports, development of the Europe — Western China route, and, finally, the Northern Sea Route.

RUSSIA IN THE SYSTEM OF INTERNATIONAL TRANSPORT CORRIDORS OF EURASIA AND THE ROLE OF THE NSR

Since the beginning of the twentieth century and especially in the 21st century, international transport corridors (MTCs), which connect the countries of Europe and Asia, have become of great importance in the world. MTCs are important for each country not only from the point of view of commercial benefits, but also from the standpoint of national security. The use of MTK helps to reduce the cost of transportation, increase financial opportunities and modernize shared infrastructure, leads to increased requirements for synchronizing traffic schedules, improving common customs tariffs, and much more. The ITC contributes to the expansion and strengthening of international cooperation, the formation of new economic ties, scientific, economic, technical, and cultural ties. According to the UN, the ITC «is a part of a national or international transport system that provides significant international freight

² Правительство РФ (2017). Государственная программа «Развитие транспортной системы». 20.12.2017. № 1596 [The Russian Government (2017). The state program «Development of the transport system». December 20, 2017. No. 1596]. URL: <http://government.ru/rugovclassifier/841/events/> (дата обращения: 07.05.2025) (in Russian).

and passenger transportation between individual geographical areas, includes rolling stock and stationary devices of all types of transport operating in this direction, as well as a set of technical, organizational and legal conditions for these transportation» [Kuznetsova, 2019, p. 2]. According to the materials of the Government of the Russian Federation (No. 3363 r 11.27.2021) the definition of the ITC sounds like «An international transport corridor is a set of routes passing through the territories of the state and providing transportation of passengers and goods in international traffic in the directions of their greatest concentration, as well as a set of technological and organizational and legal conditions for the implementation of these transportation»³.

In the modern world, the processes of economic globalization are continuing, competition between states is becoming tougher, and changes are taking place in the world commodity markets by individual associations. There are numerous sanctions against Russia that restrict the country's foreign trade. In this regard, cargo flows in the Eurasian space are being regrouped. The Russian state faces the challenges of integrated development and diversification of national transport systems.

Several Eurasian transport corridors pass through Russia: the Transsib, the increasingly important North-South ITC, which has a number of parallel routes, a water and railway route, etc. [Stepanov, 2022, p. 202–210]. Currently, the MTK “Northern Sea Route” is becoming increasingly important, both for Russia and for many countries in Asia, partly and Europe. The Russian northern route is necessary as the most important route connecting certain regions of Russia, contributes to the development of the Arctic zone of the Russian Federation and can provide most of the transportation from the Far East to the European part of the country. The NSR also guarantees the delivery of imported goods to St. Petersburg and the Baltic ports. Ensuring the passage of ships along the NSR in both directions, with the development of the route, transport logistics companies and ports of the Arctic will be involved, which will lead to favorable conditions. For a more coordinated work of the NSR, it is necessary to unite and coordinate the actions of individual participants — public authorities: the Ministry of Transport, the Ministry of Defense, the administration of the NSR, local authorities, Rosatom business, Russian raw materials companies, etc. Today, the NSR is an accessible waterway between the Far East, Central Russia and the Northwest of the country.

The Northern Sea Route runs parallel to the Trans-Siberian railway and highway from west to east. The NSR is also connected with the transportation of goods and passengers in the meridian direction (along the Lena, Yenisei, Ob, Volga rivers) along the seas of the Pacific Ocean to the Far East and to the countries of Southeast Asia. Currently, the Northern Sea Route is not an easy transport artery. Today, this is the most important way to develop the Russian North, develop various areas of infrastructure in the Arctic regions, and develop minerals. The Arctic regions of Russia are a unique mineral resource base for Russia, which is necessary to strengthen the country's economy. 100% of diamonds, more than 90% of nickel and cobalt, 60% of copper, more than 98% of platinum, more than 90% of natural gas production and 60% of Russian oil are mined in these areas. More than 40% of gold, 80% of tin, tungsten and mercury are concentrated in these areas⁴. Huge reserves of hydrocarbons are located on the Arctic shelf. All this determines the need for a year-round high-speed mode of transport along the NSR and along the main rivers of Siberia.

After the collapse of the USSR in the 90s, despite the importance of developing the Arctic regions of Russia and due to the lack of funds, the instability of government structures, the problems associated with the development of the Arctic regions of the Russian Federation, with the survival of the peoples of the North, and the preservation of cities and towns worsened. Objective reasons led to the closure of

³ Ibid.

⁴ Арктика — мировой природный ресурс [The Arctic is a global natural resource]. Арктика сегодня [The Arctic today], 19.04.2019. URL: <https://goarctic.ru/news/arktika-mirovoy-prirodnyy-resurs/> (дата обращения: 09.04.2025) (in Russian).

mining and processing plants, there was no electricity in cities and towns, and the polar stations were abandoned. Much has changed in recent years, much has been done, and there are broad new plans for the revival and use of the Northern Sea Route.

The Northern Sea Route is one of the most significant and unique routes in the world. The NSR includes the seas of the Arctic Ocean. 8–9 months of the year, the surface is covered with thick ice. The temperature conditions are also severe (up to -65°C in the Chukotka region). But at the same time, the SPM is the shortest distance between Europe and the Far East. Since the mid-2000s, separate tourist routes have been opened.

THE HISTORY OF THE DEVELOPMENT OF THE NORTHERN SEA ROUTE

During the XII–XIII centuries, the north of Russia was explored by Pomors, immigrants from Russian cities — Novgorod the Great, etc. Since the 13th century, this route has attracted the attention of researchers, merchants, Pomors (residents of the Far North). At the end of the XVI century, the route along the mouth of the Ob River was mastered, which was used regularly for the transportation of goods. Several prisons were founded along this route. Later it became the cities of Salekhard, Berezovo, Mangazeya. Gradually, Russian sailors passed all the way east, to the Yenisei and Kolyma rivers.

Among the first navigators in the north were representatives of England and Holland. The Europeans were looking for a shorter route to India and China. At the beginning of the XVII century, by order of Boris Godunov, the city of Mangazeya was founded in Siberia beyond the Arctic circle, where a rich port was founded, where foreign merchants came⁵. Later, the role of the city came to naught, the harsh climatic conditions negatively affected. In the 19th century, interest in the NSR again attracted the attention of both Europeans and in Russia. The wealth of minerals in Siberia needed to be developed and developed in local areas.

In the middle of the XVII century, the Cossack Semyon Dezhnev discovered the strait between the eastern part of Europe and North America (now the Bering Strait). This strait was first crossed in 1743 by the explorer Vitus Bering, who did a lot to explore Kamchatka, Alaska, and the development of sea routes. The active movement along the NSR began in 1877, when the export of mineral raw materials from Siberia began. The first passages along the NSR without long stops began with the commissioning of icebreakers in 1932, when a scientific expedition led by Otto Schmidt for the first time passed through the NSR in one navigation on the icebreaker Alexander Sibiryakov. As a result of the expedition, the main directorate of the Northern Sea Route was established. Glavsevmorput engaged in the construction of icebreakers, the development of polar aviation, radio communications, and the creation of weather stations along the coast of the Arctic Ocean.

In order to use the NSR for passenger transportation, in 1933 (July) the steamer Chelyuskin was sent, which reached the Bering Strait. Unfortunately, the wind and currents dragged the ship back with ice into the Arctic Ocean (Kara Sea). In February 1934, the Chelyuskin was covered with ice and sank, the expedition members landed on the ice. People were rescued by Soviet pilots. A new trip from Vladivostok to Murmansk was made in 1934 in one navigation without accidents. This was the first through voyage from east to west⁶.

⁵ История освоения Северного морского пути (СМП) [The history of the development of the Northern Sea Route (NSR)]. Универсальная морская компания Арктика [Universal Marine Company Arctic], 2024. URL: <https://umcshipping.ru/article/severnuyu-morskoj-put/> (дата обращения: 09.04.2025) (in Russian).

⁶ Трагедия «Челюскина»: авантюра Отто Шмидта или риск первооткрывателей? [The «Chelyuskin» tragedy: Otto Schmidt's adventure or the risk of the discoverers]. Русское географическое общество [Russian Geographical Society], 13.02.2024. URL: <https://rgo.ru/activity/redaction/articles/tragediya-chelyuskina-aventyura-otto-shmidta-ili-risk-pervootkryvateley/> (дата обращения: 10.04.2025) (in Russian).

In the USSR, scientific research was actively carried out at drifting polar stations. Appliances, equipment, and food were delivered to the ice floe. In 1937, the first polar station «North Pole 1» (head Ivan Papanin) and 4 members of the group traveled more than 2 thousand km on the ice floe (274 days of the expedition). The materials obtained by the expedition showed data on sea currents, weather, air temperature, etc.

In the USSR, huge construction work was carried out to develop the Arctic coast. The northern seaports (Igarka, Dixon, Pevek, Providence Bay) were built. All of them received special strategic importance during the Great Patriotic War. During the war, military cargo, food, and energy resources were transported through the NSR. For example, the passage of ships of the Pacific Fleet took place along the NSR. The military industry of the USSR received the necessary raw materials through the NSR — copper, nickel, timber, etc. During 1941–1945, more than 4 million tons of strategic cargo were transported along the NSR. Several hundred cargo ships participated in the route.

The study and use of the Arctic regions of Russia continued after the war. In December 1959, the first nuclear icebreaker Lenin appeared, which drove caravans of ships for more than 30 years. Icebreakers were needed in connection with the construction of new industrial centers in Siberia. The construction of the Norilsk large industrial center led to the use of the NSR year-round between the village of Murmansk and the port city of Dudinka. In 1970, the first Arctic winter flight was conducted from Murmansk. In the 70–80's of the twentieth century. Thanks to the emergence of new technologies, new technical developments, and scientific and technological progress, the Russian Northern Marine Fleet has received new icebreaker vessels of the Arctic and Siberia types. In 1977, an icebreaker that could break ice up to 2.8 m thick. Since 1978, two icebreakers and several cargo ships made up a caravan, so the year-round passage along the NSR began.

THE MODERN SIGNIFICANCE OF THE NORTHERN SEA ROUTE

The Northern Sea Route is a historically established national unified transport communication of Russia in the Arctic. The maritime transport system operating here is an important part of the entire economy of the North of the Russian Federation. Huge financial resources and the work of many generations of Russians have been invested in the development of the NSR. The NSR unites the European and Far Eastern ports of the Russian Federation, as well as the mouths of navigable Siberian rivers into one system. The NSR is almost 2 times shorter than other sea routes from Europe to South Asia and China. The length of the St. Petersburg — Vladivostok route through the Suez Canal is 23.20 thousand km, along the NSR — 14.28 thousand km, which is 40% less. The duration of navigation is 2–4 months, but today the use of powerful icebreakers allows year-round transportation [Birzhakov, Kostryukova, Ozimina, 2015]. The NSR gradually turned from an extreme route into a fairly ordinary route, due to measures and attention to its development on the part of the state. As a result, the 80s of the twentieth century became record-breaking in terms of traffic.

In 1987, cargo turnover on the NSR reached 6.6 million tons [Bhagwat, 2022, p. 76–99]. A large project for the integrated development of the Soviet Arctic was developed, but it was not completed [Timoshenko, 2019, p. 70–75]. The Central Research Institute of the Navy (CRIN) has developed a plan-strategy for the development of the NSR. The program included the following tasks: state support for the development of priority sectors of the North (oil and gas, mining, forestry, chemical), increasing cargo flows in the shortest possible time; development of the transport infrastructure of the Northern Sea Route (icebreakers, port equipment, hydrography, meteorological services, navigation aids). Tasks were presented for large Russian companies (Lukoil, Gazprom, Norilsk Nickel, etc.) that will participate

in the development of the NSR. The use of icebreakers and ships on the NSR is focused on ensuring the transportation of large-scale cargoes, including export cargoes to Europe and Asia. This is oil from the basins of the Ob River and the Yenisei, liquefied natural gas from the Yamal Peninsula. With the development of the economy of the Arctic regions and the NSR, the Arctic transport system is self-sustaining [Peresyppkin, Yakovlev, 2007, p.12–16].

In accordance with this strategic program, the CRIN developed a concept for the development of the NSR, according to which it was planned to build 4 nuclear icebreakers of a new generation by 2014 with a capacity of up to 80 thousand hp, a nuclear icebreaker with a capacity of 150 thousand horsepower (by 2017), 5 diesel icebreakers of 3.4 thousand hp, 3 port icebreakers, capacities of 9 thousand hp and other equipment for ports [Zhuravleva, 2021, pp. 72–87]. It was supposed to modernize existing and build new ports in the Arctic (Pechenga, Indigo) and reconstruct shipping terminals (Tiksi, Providence Bay, Petropavlovsk-Kamchatsky). The issues of ensuring the safety of swimming in an ice environment were resolved. In the implementation of these plans, it was supposed to involve a number of organizations of various profiles: 7 research institutes, 5 design bureaus, 12 main factories, etc. organizations in Russia. The approximate cost estimate for the implementation of the program until 2020 was more than 150 billion US dollars [Goncharenko, Prokofieva, Sergeev, 2011, p. 173–182].

At the beginning of the XXI century, before the introduction of numerous sanctions against Russia, a number of European Union (EU) countries jointly with the Russian Federation drew up a project on the development and use of the NSR for the transportation of hydrocarbons from the Russian Arctic regions to Europe [Kravchuk, 2016, p. 36–46].

The development of the NSR is a national Russian program capable of ensuring cargo flows, both of national goods and cargo, and of foreign ones, and transit. Currently, a lot is being done to solve the tasks of developing the NSR. As a result, according to the Arctic development strategy provided by the Ministry of Regional Development of the Russian Federation, the NSR will be able to provide up to 80% of the loading of the route by 2035. In 2030, transportation along the NSR will reach 120 million tons (2024–80 million tons), by 2035 — will grow to 150 million tons⁷. Currently, one liquefied natural gas (Yamal LNG) project is operating in the Arctic on the Yamal Peninsula. The shareholders of the project are NOVATEK (50.1%), French Total (20%), Chinese CNPC (20%), the Silk Road Fund (9.9%)⁸. Despite the sanctions, liquefied natural gas from Russia goes to Europe. The volume of gas supplied is increasing for Asian countries. In 2023, 17.7 billion cubic meters of gas were sent to Europe, 6.8 billion cubic meters to Asia [Vorobyov, 2024]. It is planned to build 3 LNG lines based on the Morning gas field on the Gydan Peninsula (Yamalo–Nenets Autonomous Okrug) with a capacity of 6.6 million tons per line⁹.

The development of oil fields in Taimyr is underway, this is the RosNeft project. The total hydrocarbon resource base of several fields is 6 billion tons. The company has planned to launch two LNG

⁷ Interfax (2019). Грузопоток по СМП может вырасти до 120 млн т к 2035 г. при условии налоговых льгот для нефтедобытчиков — Росатом [Freight traffic on the NSR may grow to 120 million tons by 2035, subject to tax incentives for oil producers — Rosatom]. URL: <https://www.interfax-russia.ru/northwest/news/gruzopotok-po-smp-mozhet-vyrasti-do-120-mln-t-k-2035g-pri-uslovii-nalogovyh-lgot-dlya-neftedobychikov-rosatom?ysclid=lvwhujcx98222833013> (дата обращения: 10.04.2025) (in Russian).

⁸ CDD FEC (2018). Борьба на рынке СПГ [The struggle in the LNG market]. URL: https://www.cdu.ru/tek_russia/articles/3/456/?ysclid=lvwhy53ej273397389 (дата обращения: 10.04.2025) (in Russian).

⁹ «Новатэк» отправит первую очередь завода по сжижению СПГ в июле [Novatek will ship the first stage of the LNG liquefaction plant in July]. Мурманск РБК [Murmansk RBK], 12.05.2023. URL: <https://murmansk.rbc.ru/murmansk/12/05/2023/645e02b09a7947d2b0461e95> (дата обращения: 10.04.2025) (in Russian).

projects in 2030–2035 — Taimyr LNG and Kara LNG. The capacity of Taimyr LNG (North Bay of the Krasnoyarsk Territory) may amount to 35–50 million tons¹⁰.

Rosneft plans to build 50 different vessels to operate on the NSR. 10 ice-class tankers with a deadweight of 120 thousand tons have already been ordered (for operation on the NSR). Gazprom is developing the Novoportovskoye field in Yamal with an oil production of 6.7 million tons per year¹¹.

According to the NSR, in addition to the transportation of oil, natural gas, coal, metals, small volumes of loading from Russian wheat, the supply of fish in container ships is increasing. All these cargoes are transported by icebreakers of the nuclear fleet and special vessels. According to the State Statistics Committee, in 2023, 5 times more cargo was transported along the Northern Sea Route than in the record Soviet year of 1987¹².

The cargo traffic volume along the Northern Sea Route (NSR) in 2024 reached a historic high of 37.9 million tons, exceeding the 2023 figure by 1.6 million tons. This information became available in January 2025. According to Rosatom, a record number of 92 transit voyages were completed in 2024, and the volume of transit cargo exceeded 3 million tons, which is one and a half times greater than the 2023 figures. Specialists from GlavSevmorput reviewed 1,312 applications for sailing in the NSR waters, setting the highest number in the entire history of the sailing permit system¹³.

In 2024, the crews of the nuclear icebreakers of FSUE «Atomflot» and the specialists of «GlavSevmorput» ensured 976 icebreaker-assisted transits. Furthermore, a unique icebreaking escort of dredgers from the east to the Gulf of Ob was successfully implemented, and information and navigation support services were provided to 72 vessels¹⁴.

At the suggestion of the President of the Russian Federation V. V. Putin, back in 2023, changes were made to the Strategy for the development of the Arctic zone of the Russian Federation and ensuring national security for the period up to 2035¹⁵. According to the changes, it is planned to build additional vessels for the operation of the NSR. The commissioning of new vessels will provide at least 135 trillion rubles in addition to the federal budget due to the development of the infrastructure of the NSR (by 2035). Currently, Russia has 41 icebreakers, of which 34 are diesel-powered and 7 are nuclear-powered. This number exceeds the total number of icebreakers in the USA, Canada, Finland, Denmark, Sweden and China. Russia has the most powerful nuclear icebreakers (7), of which «Arctic» (2020), «Siberia» (2022) and «Ural» (2022). A new icebreaker «Russia» is currently under construction, launching is scheduled for 2027 (capacity 120 MW). The vessels Yakutia and Chukotka are under construction. By

¹⁰ Interfax (2023). «Роснефть» в рамках «Восток Ойла» построила уже 200 километров нефтепровода [Rosneft has already built 200 kilometers of oil pipeline within the framework of Vostok Oil]. URL: <https://www.interfax.ru/business/929291> (дата обращения: 10.04.2025) (in Russian).

¹¹ Mediapaluba (2021). «Роснефть» построит более полусотни судов для своего нового проекта [Rosneft will build more than fifty vessels for its new project]. URL: <https://paluba.media/news/5978?ysclid=lvwjflyywu254186914> (дата обращения: 10.04.2025) (in Russian).

¹² Rigel' (2024). Ледокольный флот России: больше, чем у США, Канады, Финляндии, Дании и Китая вместе взятых [Icebreaking Fleet of Russia: more than the United States, Canada, Finland, Denmark and China combined]. 15.01.2024. URL: <https://salt.news/promishlennost/ledokolnyj-flot-rossii-bolshe-chem-u-ssha-kanady-finlyandii-danii-i-kitaya-vmestevzyatyh/?ysclid=lvwjxic4g639221454> (дата обращения: 10.04.2025) (in Russian).

¹³ Северный морской путь [Northern Sea Route]. URL: https://www.tadviser.ru/index.php/Статья:Северный_морской_путь (дата обращения: 10.09.2025) (in Russian).

¹⁴ Объем грузоперевозок по Северному морскому пути установил рекорд [The volume of cargo transportation along the Northern Sea Route has set a record]. URL: <https://rosatomflot.ru/press-centr/novosti-predpriyatiya/2025/01/09/11644-obem-gruzoperevozok-po-severnomu-morskomu-puti-ustanovil-rekord/> (дата обращения: 14.09.2025) (in Russian).

¹⁵ Kremlin.ru (2023). Внесены изменения в Основы государственной политики в Арктике на период до 2035 года [Changes have been made to the Fundamentals of State Policy in the Arctic for the period up to 2035]. 21.02.2023 (in Russ.). URL: <http://www.kremlin.ru/acts/news/70570> (дата обращения: 10.04.2025) (in Russian).

2028, it is also planned to build the Kamchatka and Sakhalin icebreakers. Without our icebreakers, passage through the Arctic Ocean would be limited to 2–4 months¹⁶.

The year 2024 witnessed several significant events in the development of Russia's icebreaker fleet. In January, the icebreaker «Leningrad» was laid down; in November, the icebreaker «Chukotka» was launched; and in late December, the flag was raised on the icebreaker «Yakutia». These events underscore the strategic importance of developing the Arctic fleet for ensuring the uninterrupted operation of the Northern Sea Route¹⁷.

Our icebreakers ensure the operation of seaports, terminals, gas carriers, tankers all year round. Recognizing the importance of the icebreaking fleet, the government of the Russian Federation has taken measures by the end of 2024. Our Arctic fleet will be replenished with 16 new rescue vessels of various capacities; the lead icebreaker Leader, 4 non-nuclear icebreakers, 3 hydrographic vessels, 2 pilotage vessels. By 2030, it is planned to build 30 more such vessels¹⁸.

For the construction of container ships intended for transportation along the Northern Sea Route, a joint venture between Rosatom and the Chinese company New New Shipping was established at the end of 2024. The new company, named Northern Sea Route Shipping Line, was established under the jurisdiction of the People's Republic of China and will facilitate the development of shipping infrastructure in the Arctic direction¹⁹.

While developing the NSR, Russia has repeatedly stated that the MTK is open for use by other countries, for large-scale initiatives in the Arctic, and for transit cargo transportation. In the modern situation, the passage of ships through the Suez Canal has become more difficult. The military actions in Gaza led to an escalation and military actions by supporters of Palestine in the Persian Gulf. Merchant ships are forced to change course to a course around Africa, which lengthens the time and increases the cost of transportation. The use of the NSR is available all year round, absolutely free for cargo transportation, safe (no pirates). Passage with icebreakers ensures the independence of ships from Arctic weather and ice. A number of Asian countries have already become interested in new routes, including the BRICS countries (China, India).

After the visit of Chinese President Xi Jinping to Russia in 2023 and talks with Russian President Vladimir Putin, it was noted that Russia is ready to create a joint working body on the development of the Northern Sea Route. China and neighboring Asian countries are showing great interest in using the NSR to supply national goods to Europe. A new, calmer and shorter way. The old route through the Suez Canal is 21 thousand km along the NSR, the path is shortened from 8 thousand km to 13 thousand km between the ports of Asia (Shanghai) and Russia, the travel time is reduced from 5–6 weeks to 2–2.5 weeks [Nefedov, 2024]. The changes will cause a new configuration of international cargo shipping. According to Chinese economists, a new stable connection between Europe and Asia will appear in the world. «If the crisis in the Gaza Strip expands, it will all the more become a huge danger for the Suez Route. Therefore, the NSR will be increasingly in demand». With the development of the economy in the Russian Federation, China and other Asian countries, the value of trade turnover is increasing.

¹⁶ Mintrans (2024). Ледокольный флот России — самый мощный в мире [Russia's icebreaking fleet is the most powerful in the world]. URL: <https://mintrans.gov.ru/press-center/news/11115?ysclid=lujqo26b6a374114847> (дата обращения: 10.04.2025) (in Russian).

¹⁷ Северный морской путь [Northern Sea Route]. URL: https://www.tadviser.ru/index.php/Статья:Северный_морской_путь (дата обращения: 10.09.2025) (in Russian).

¹⁸ Mintrans (2024). Ледокольный флот России — самый мощный в мире [Russia's icebreaking fleet is the most powerful in the world]. URL: <https://mintrans.gov.ru/press-center/news/11115?ysclid=lujqo26b6a374114847> (дата обращения: 10.04.2025) (in Russian).

¹⁹ Northern Sea Route Shipping Line. URL: https://www.tadviser.ru/index.php/Компания:Northern_Sea_Route_Shipping_Line (дата обращения: 10.09.2025) (in Russian).

Countries are looking for new and more convenient ways of trade, and investment and trade barriers are being eliminated. China is fully promoting the «One Belt– One Road» project not only by land. Using the NSR for cargo transportation, the PRC defined it as the Polar Silk Road.

CHINA'S PARTICIPATION IN THE NORTHERN SEA ROUTE DEVELOPMENT PROJECT

A number of Asian countries, in particular China, are showing some interest in using the NSR as the shortest safe route to Europe for their goods. The PRC's interest in the NSR is confirmed in the White Paper on the Arctic²⁰ and on the tasks in the 14th five-year development Plan of the country. The military situation in the Red Sea and the Houthi raids in the Strait of Malacca hinder the development of trade and the transportation of Chinese goods to Europe. Due to the military operations in the Red Sea area, transit through the NSR has increased significantly. In the summer and autumn months of 2023, part of the cargo from the Suez Canal was transferred to the NSR. The use of the NSR for these purposes is becoming necessary for the PRC. Today, problems are growing in the South China Sea around Taiwan. For stable navigation, the year-round NSR can be useful for China and other countries.

The trade turnover between Russia and China creates a huge potential for the growth of maritime transportation. Cooperation between Russia and China in the energy sector will also lead to an increase in hydrocarbons and coal transported to China. The Chinese company New Shipping Line performed 8 flights from China to Murmansk and St. Petersburg last year. With the development of cargo flows along the NSR, it is necessary to increase the number of ships on the route. According to Vladimir Panov, a representative of Rosatom, Russia is not closed to cooperation in the field of shipbuilding²¹.

By 2030, about 100 new icebreaking fleet vessels will be required to ensure constant navigation along the NSR [Kamanin, 2024]. Cooperation with Chinese shipbuilding companies is possible in this area. China's interest in the Arctic is not accidental. He is motivated by obtaining shorter and quieter sea routes, as well as new sources of energy and mineral resources of the Russian North. The Chinese shipping company COSCO²² participates in 30% of the NSR flights [Martins, 2023]²³. The issue of China Communications Construction Co., Ltd. («CCCC»)²⁴ and China Railway (CR)²⁵ on the extraction of raw materials in the Komi Republic and the possible construction of a railway and a deep-water seaport in the Russian Federation for loading raw materials onto ships and further transportation along the NSR was discussed. The Chinese Energy Engineering Corporation (Energy China — CEEC)²⁶ has agreed to explore natural gas fields in the Nenets region, which is located beyond the Arctic Circle along the Barents Sea.

²⁰ Zhongguo zhengfu (2018). Zhongguo De Beiji Zhengce (2018 Nian 1 Yue) [China's Arctic Policy (January 2018)]. URL: https://www.gov.cn/zhengce/2018-01/26/content_5260891.htm (дата обращения: 10.04.2025) (in Chinese).

²¹ TASS (2024). Эксперт: объемы грузоперевозок по СМП будут рекордными следующие несколько лет [Expert: freight traffic volumes on the NSR will be record-breaking in the next few years]. URL: <https://tass.ru/ekonomika/19762093?ysclid=lvwl7qe1xp384370321> (дата обращения: 12.04.2025) (in Russian).

²² Zhongguo Yuanyang Haiyun Jituan Youxian Gongsi [China COSCO Shipping Corporation Limited]. URL: <https://www.coscoshipping.com/> (дата обращения: 14.04.2025) (in Chinese).

²³ Martins T. T. (2023). Arctic Ambitions: China's Engagement. With the Northern Sea Route. Diplomat media INC, 24.11.2023. URL: <https://thediplomat.com/2023/11/arctic-ambitions-chinas-engagement-with-the-northern-sea-route/> (дата обращения: 15.04.2025).

²⁴ Zhongguo Jiaojian [China Communications Construction Co., Ltd.] (in Chinese). URL: <https://www.ccccltd.cn/> (дата обращения: 15.04.2025) (in Chinese).

²⁵ Zhongguo Guojia Tielu Jituan Youxian Gongsi [China State Railway Group Co., Ltd.] (in Chinese). URL: <http://www.china-railway.com.cn/> (дата обращения: 10.04.2025) (in Chinese).

²⁶ Zhongguo Nengyuan Jianshe Gufen Youxian Gongsi [China Energy Engineering Corporation Ltd.] (in Chinese). URL: <https://www.ceec.net.cn/> (дата обращения: 15.04.2025) (in Chinese).

China has become one of the main partners of the Russian Federation in the Arctic in oil and gas production. The Russian company Gazprom uses the Chinese drilling rig Nanhai VIII, which belongs to the oilfield services company China Oilfield Services Limited (COSL)²⁷. In 2017, this installation was transported via the NSR to the production site on the Chinese vessel Hai Yang Shi You 278 for drilling operations at the Rusanovsky and Nyarmeysky sites in the Kara Sea. In 2020, Gazpromneft transported 144 thousand tons of oil produced in the north of the Russian Federation to the Chinese port of Yantai²⁸.

China proposes to lay a fiber-optic cable (10,500 km) along the Arctic seas. This project will improve communication on the NSR, increase technical safety in these areas by increasing the data received for use by ships during navigation.

On September 23, 2025, the Central People's Government of the People's Republic of China announced the launch of a historic trans-Arctic route. The Chinese container ship Istanbul Bridge became the first cargo vessel to set a course from China to European ports via the Arctic route using the Northern Sea Route. The vessel departed from a Chinese port carrying a cargo of construction materials, textiles, and electromechanical products, bound for the British port of Felixstowe with an expected delivery time of 19 days²⁹.

Other Asian countries are also interested in transporting their goods through the NSR [Tillman, Jian, Nielsson, 2023, p. 345–362]. For example, India, which has increased oil imports from Russia. The BRICS countries are also considering participating in the work of the NSR, which can provide optimal trade routes between Asia and Europe, connect large industrial agricultural areas, energy hubs with consumer markets. The construction of a fuel terminal, hub ports, and railways expands the capabilities of the icebreaker fleet and, in general, will have a beneficial effect on Russia's interstate relations with Asian countries.

Today, the Northern Sea Route (NSR) is the most important way to develop the Russian North, develop various areas of infrastructure in the Arctic regions, and develop minerals. The maritime transport system operating here is an important part of the entire economy of the North of the Russian Federation. Huge financial resources and the work of many generations of Russians have been invested in the development of the NSR. In the modern conditions of Russia's confrontation with the collective West, the NSR is becoming one of the most important routes in the world. A number of Asian countries are showing some interest in using the NSR, which is becoming an international integration project not only for the transit of goods, but also for the participation of friendly countries in joint infrastructure projects, mining, transport projects, environmental protection, scientific research in the Arctic, etc.

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²⁷ China Oilfield Services Limited (COSL). URL: <https://www.cosl.com.cn/col/col20611/index.html> (дата обращения: 16.04.2025).

²⁸ Gazprom Neft (2020). «Газпром нефть» впервые поставила арктическую нефть в Китай [Gazprom Neft supplies Arctic oil to China for the first time]. URL: https://www.gazprom-neft.ru/press-center/news/gazprom_neft_vpervye_postavila_arkticheskuyu_neft_v_kitay/ (дата обращения: 16.04.2025) (in Russian).

²⁹ Китай отправил первое грузовое судно в Европу по Северному морскому пути [China sent its first cargo ship to Europe via the Northern Sea Route]. URL: <https://prim.rbc.ru/prim/23/09/2025/68d231a79a7947bea9e69d54> (дата обращения: 16.09.2025) (in Russian).

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