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2022: The Russian Arctic in Times of Change

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Abstract. The purpose of the article is to comprehend the problems of the Russian Arctic against the background of a special military operation in Ukraine in 2022. The research methodology is based on interdisciplinarity, general scientific methods, priority use of primary sources. The author investigates the current topics of determining the outer limits of the Russian continental shelf in the Arctic, Russia's participation in the Arctic Council, the US Arctic strategy in 2019, 2022 and the US Arctic strategy in 2022. The volume of freight traffic in the Northern Sea Route and the Arctic Basin over the past few years, the activities of the newly established in 2022 FSBI "Glavsevmorput", the creation of a single platform of digital services are analyzed. Due to Russia's ongoing Asian turn in international relations to the east, the increase in the volume of cargo transportation to Asia and the sanctions of the collective West, there is an urgent need to bring existing regulations, navigation rules in line with the current reality in the economy and politics, to ensure the security of the entire Russian Arctic. In perspective, the transformation of the NSR water area into the sea transport corridor from Murmansk in the west to Vladivostok in the east becomes quite possible. In 2022, a modified procedure for identifying existing names of geographical objects was approved. An important aspect is the appearance on the map of the names of the Russians participated in the study of the Arctic. The complex of external and internal challenges in the Russian Arctic is not limited to the problems mentioned in the article and requires further research.

Keywords: *Russian Arctic, continental shelf boundaries, Arctic Council, Arctic Strategy, Northern Sea Route, Arctic Basin, name of geographical object*

Introduction

The Russian Arctic is constantly changing: the climate, the economy, and the life of Arctic communities. Long-standing problems are being solved and new ones are emerging, updated development strategies and laws are being adopted. The crisis year of 2022 also contributed to the process of Arctic changes. The special military operation (SMO) in Ukraine has led to an increasing flow of sanctions by the European Union and the USA against Russia, which is directly related to the use of the oil and gas resources of the Arctic, the operation of the Northern Sea Route, and the life of Arctic communities. Climate change and the declared transition to a green economy are becoming an instrument of the domestic and foreign policy of the European Union (EU), including in the Arctic, even despite the energy crisis associated with the continuation of the SMO in Ukraine. Against the background of the ongoing revision of values in the European society, the permanent dissatisfaction of the vital needs of the population in the energy sector due to rising prices and inflation, a common European position of deprivation of the Russian Arctic, linked to

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the rejection of Russian oil and gas, is being formed. This is a new Arctic challenge for Russia, although Russia is gradually establishing hydrocarbon sales to new markets in Asia.

In addition to external challenges for our country in the Arctic, the internal issues that have existed for many years are also aggravating. In the 21st century, the Russian Arctic is adding new islands, capes, straits and bays in the Arctic Ocean. There is an objective need in specification of the list of all geographical objects and in regulation of the use of this state information resource, its digitization. The importance of oceanographic research and hydrographic activities in the Arctic Ocean is growing. In addition, the UN has not resolved the issue of the boundaries of Russia's continental shelf in the Arctic for more than twenty years.

Outer limits of the Russian continental shelf in the Arctic

One of the old challenges for Russia has been and still remains the issue of the outer limits of the Russian continental shelf in the Arctic Ocean beyond 200 nautical miles. Russia's multipurpose systematic studies in the Arctic began in 1961 and continued for 35 years. The entire water area of the Arctic Basin is covered by high-precision systematic depth measurements at a density of 5–15 km [1, Soboleva M.N., Kavrayskiy A.V., Kostenich A.V. et al.].

In 2001, Russia for the first time submitted to the UN Commission on the Limits of the Continental Shelf a proposal on the expansion of its external borders along the Arctic shelf. However, the first application to the UN was rejected. In 2015, Russia submitted to the UN Commission on the Limits of the Continental Shelf a new proposal on the expansion of the boundaries of its continental shelf in the Arctic. The discussion of this application at the UN began in August 2016. In 2019, the UN Sub-commission recognized the geological attribution of part of the Arctic territories included in the extended borders of 1.2 million km² to the Russian continental shelf ¹.

On March 31, 2021, the Russian Federation submitted two addenda to the partially revised 2015 Submission to the UN Commission on the Limits of the Continental Shelf in the Arctic Ocean². Additions contained all the necessary scientific data, diagrams and coordinates of research on the Gakkel, Alpha, Lomonosov ridges, the Nansen and Amundsen basins, the Mendeleev rise, the Amundsen and Makarov basins, the Canadian basin. The 2021 application was about an additional 700 thousand square kilometers to the previous application of 1.2 million km². The amended application did not include the water areas to the north of Alaska, USA.

The Government of the Russian Federation, by its Decree of December 25, 2021, determined the rules, objectives and procedure for providing subsidies to JSC Rosgeologiya from the

¹ Podkomissiya OON podtverdila prinadlezhnost' territoriy po zayavke Rossii na shel'f v Arktike [The UN subcommission confirmed the ownership of the territories on the Russian shelf in the Arctic]. URL: <https://tass.ru/mezhdunarodnaya-panorama/6290153> (accessed 10 January 2023).

² Rossiya rasshirila svoyu zayavku na chast' kontinental'nogo arkticheskogo shel'fa [Russia has expanded its claim to part of the Arctic continental shelf]. URL: <https://mirovoeobozrenie.mirtesen.ru/blog/43066133877/Rossiya-rasshirila-svoyu-zayavku-na-chast-kontinentalnogo-arkticheskogo-shel'fa> (accessed 10 January 2023).

federal budget for financial support to the preparation of additional materials to substantiate the application for establishing the outer limit of the continental shelf in the Arctic Ocean ³.

It is known that Denmark and its autonomous territory Greenland, Canada and Russia have claims to the Arctic continental shelf and have officially submitted applications to the UN Seabed Commission. In the period of the emerging multipolarity and transformation of the unipolar world, the overwhelming dominance of the United States and its allies in the UN in the context of the continuation of the special military operation in Ukraine leaves little chances for solving the problems of determining the boundaries of the Arctic continental shelf in favor of modern Russia.

On the issue of Russia's participation in the Arctic Council in 2022

In 2022, in the context of sanctions against Russia due to the SMO in Ukraine, the situation in the Arctic Council (AC) became acute. Russia has become a pariah in this most important international organization, even in the year of its chairmanship in the AC. The United States intends to keep the Arctic Council as the main multilateral forum, while noting that Russia's aggressive war against Ukraine has made cooperation with Russia in the Arctic nearly impossible.

Seven permanent member states of the Arctic Council announced in March 2022 that they refused to participate in meetings chaired by Russia because of the situation around Ukraine. The official website of the AC posted the following statement: "*The Arctic Council is pausing all official meetings of the Council and its subsidiary bodies until further notice*" ⁴. In June 2022, the seven states decided to resume the work of the AC, but without Russian participation. The United States, in order to maintain the effectiveness of the Arctic Council, intends to work primarily with its allies and partners. At the same time, the United States recognizes that, under certain conditions, it is possible to resume some cooperation with Russia. The AC work has been formally resumed without Russia's participation.

What is Russia to do in such a situation? There are several possible options for the future of Russia's involvement in the Arctic Council.

Firstly, Russia remains in the Arctic Council as an observer without the possibility of influencing emerging situations, since it is likely to be in the minority in key decisions. It is very important for the Russian Federation to maintain partnership relations with its allies, step by step promoting joint projects in ecology, economy, culture, education, international relations in the Arctic region, in which Russia, China, India will be interested.

Secondly, there is a question: does it make sense to create a parallel structure, for example, the "North Arctic Council", which may include Russia, China, India and other countries, while actually being in the Arctic Council and solving common problems together in some areas? What can such a split give? In any case, the withdrawal of Russia as the leading Arctic power from the Arctic

³ Postanovlenie Pravitel'stva RF ot 25 dekabrya 2021 g. № 2482 [Decree of the Government of the Russian Federation of December 25, 2021 No. 2482]. URL: <http://publication.pravo.gov.ru/Document/View/0001202112290030> (accessed 10 January 2023).

⁴ Arctic Council. URL: <https://www.arctic-council.org/> (accessed 03 January 2023).

Council is unacceptable. It would mean inevitable capitulation of Russia in the Arctic, its isolation in solving international issues of the Arctic region development, creating problems for the implementation of Russia's activities in the Arctic.

Thirdly, Hong Kong's oldest English-language newspaper "South China Morning Post" published an article "How a new Arctic League can save the post-coronavirus world" on May 11, 2020. Its author was Irvin Studin, Ph.D., editor-in-chief and publisher of the Global Brief magazine, president of the Institute for 21st century questions (Toronto). This new Arctic League should include Canada, the USA, Russia, Japan, several states of Northern Europe, if not the entire EU, and China, Japan and two Koreas from Northeast Asia. The point was to prevent the prospect of war between the US, China and Russia⁵. One of the main problems in the creation of the "Arctic League" was the question: does this correspond to the national interests of both the 8 Arctic countries and the 13 non-Arctic states-observers of the Arctic Council? Does the Arctic Council cease its activities or does it somehow interact with the new international structure that is being created on the problems of indigenous peoples, ecology, conservation of flora and fauna, and climate change?

Fourthly, Russia is using and will continue to accumulate its internal reserves, available scientific, technical, financial and economic resources to fulfill the tasks set in the *Strategy for the development of the Russian Arctic and ensuring national security for the period up to 2035*, approved by the Decree of the President of the Russian Federation dated October 26, 2020 No. 645⁶. The list of the main strategic dangers, challenges and threats that form risks for the internal development of the Arctic zone and ensuring national security indicates the growth of conflict potential in the Arctic, which requires a constant increase in the combat capabilities of troops (forces) of the Armed Forces of the Russian Federation, as well as other military formations and bodies in the Arctic zone of the Russian Federation. The multi-vector foreign policy activity of the Russian Federation is aimed at the implementation of tasks in the field of developing the infrastructure of the Russian Arctic.

US Arctic Strategies 2019 and 2022

A decade ago, it was said that Russia and the United States were competitors, but not enemies or antagonists. There is no fundamental difference in their political and economic systems, although they are not identical⁷. US Deputy Secretary of State David Hale in 2020 referred to Rus-

⁵ Irvin Studin. How a new Arctic League can save the post-coronavirus world. URL: <https://www.scmp.com/week-asia/opinion/article/3083605/how-new-arctic-league-can-save-post-coronavirus-world> (accessed 17 January 2023).

⁶ Ukaz Prezidenta RF ot 26 oktyabrya 2020 g. № 645 «O Strategii razvitiya Arkticheskoy zony Rossiyskoy Federatsii i obespecheniya natsional'noy bezopasnosti na period do 2035 goda» [Decree of the President of the Russian Federation of October 26, 2020 No. 645 "On the strategy for the development of the Arctic Zone of the Russian Federation and ensuring national security for the period up to 2035"]. URL: <https://www.garant.ru/products/ipo/prime/doc/74710556/> (accessed 05 January 2023).

⁷ Shakleina T.A. Rossiya — SShA: optimizm i pessimizm «perezagruzki» [Russia-USA: Optimism and Pessimism of the "Reset"]. URL: https://www.perspektivy.info/book/rossija__ssha_optimizm_i_pessimizm_perezagruzki_2012-02-03.htm (accessed 11 January 2023).

sia in 2020 as a tough, sometimes resourceful competitor to the US⁸. Changes in the global environment, qualitative complication of international interactions and domestic political dynamics both in Russia and Asian countries allow a new perspective on the process designated in Russian official and academic discourse as the “pivot to the East” [2, Torkunov A.V.]. In 2018–2022, the “pivot to the East” is associated with changes in the paradigm of relations between the US and Russia in the Arctic, which is clearly reflected in the US strategic documents.

The United States publicly accused Russia of militarizing the Arctic in May 2021. On May 18, 2021, US Secretary of State Anthony Blinken, during a press conference with Icelandic Foreign Minister Gudlaugur Thor Thordarson in Reykjavik, said that Russia had made illegal maritime claims. In particular, its regulation of foreign ships passing through the Northern Sea Route is incompatible with international law. Blinken also outlined “*concerns about intensified military activity in the Arctic that increases the risk or prospects for accidents, miscalculations, and undermines the overall goal of a peaceful and sustainable future for the region*”⁹. Minister of Foreign Affairs of Russia S.V. Lavrov promptly responded that everything that Russia does in the Arctic is legal and legitimate: “*The Russian military is responsible for ensuring that the Arctic coast of Russia is safe. However, when NATO tries to get in there, it’s a completely different situation. This is our land and our waters. But when NATO tries to justify its offensive in the Arctic, this is probably a slightly different situation*”¹⁰.

The 2019 DoD Arctic Strategy defined the strategic goals for the Arctic region considering an updated assessment of the changing security environment. The main pragmatic goal of the strategy of the US Department of Defense in 2019 was to obtain the financial resources necessary for the implementation of military tasks in the Arctic region within the US general planning and budgeting framework. The US Department of Defense has been strategically focused on identifying threats in the Arctic, responding quickly and effectively to them, and creating a security environment to mitigate the likelihood of these threats in the future. The implementation of such a strategic US approach in the Arctic required: a) increased Arctic awareness, b) intensified Arctic operations, and c) reinforced rule-based order in the Arctic¹¹.

It is very important to understand the implications of the permanent internationalization of the Arctic, based solely on US rules, appearing in various doctrines. For example, in order to raise awareness of the Arctic, to form a positive public opinion, the United States identified itself as the

⁸ «Zhestkiy konkurent»: v Gosdepe ne schitayut Rossiyu vragom [“Tough competitor”: the State Department does not consider Russia an enemy]. URL: https://www.gazeta.ru/politics/2020/01/11_a_12905744.shtml (accessed 11 January 2023).

⁹ Secretary Antony J. Blinken and Icelandic Foreign Minister Gudlaugur Thor Thordarson at a Joint Press Availability. May 18, 2021. URL: <https://www.state.gov/secretary-antony-j-blinken-and-icelandic-foreign-minister-gudlaugur-thor-thordarson-at-a-joint-press-availability/> (accessed 03 January 2023).

¹⁰ «Eto nasha zemlya i nashi vody»: Lavrov zadal NATO neudobnyy vopros po Arktike [“This is our land and our waters”: Lavrov asked NATO an uncomfortable question about the Arctic]. URL: <https://inforuss.info/eto-nasha-zemlya-i-nashi-vody/> (accessed 10 January 2023).

¹¹ Report to Congress Department of Defense Arctic Strategy. 2019 DoD Arctic Strategy. June 2019. Pp. 1-2. URL: <https://media.defense.gov/2019/Jun/06/2002141657/-1/-1/1/2019-DOD-ARCTICSTRATEGY.PDF> (accessed 11 January 2023).

“Arctic nation” in 2019. Geographically, the Arctic covers the northern periphery of the United States and, according to the developers of the strategy, represents a potential vector for both attacks on the homeland and for projecting US power. The approaches to the Arctic Ocean, both east and west of the United States, form strategic shipping corridors. The Arctic shipping lanes pass through the Bering Strait between the United States and Russia, while the Greenland–Iceland–United Kingdom–Norwegian Channel (GIUK-N) is a strategic corridor for naval operations between the Arctic and the North Atlantic¹². The Arctic was also strategically positioned in 2019 as *“The Arctic as the U.S. homeland”*, without good reason for this¹³. The ancient civilizations of America really appeared before Columbus. Well-designed museums of archaeological and cultural monuments of life of Indian tribes in the United States remind of that. According to one theory, ancient people came to the American continent from Northeast Asia through the Bering Strait.

The concept of *“The Frontier in American History”* by the famous historian Frederick Jackson Turner (1861–1932) is widely known in historical science. The book *“The Frontier in American History”*, published in 2009 in Russian, contains his main articles and speeches of 1893–1918, in which the concept of the “frontier” was formulated [3]. These essays of different years were concentrated on one main theme — the expansion of territorial boundaries in American history. The frontier was defined as a place of contact between savagery and civilization, the presence of free lands. The book analyzes the first official frontier of Massachusetts Bay, the Old and Midwest, the Ohio and Mississippi river valleys in American history, the dominant forces in the life of the West and its contribution to American democracy. According to the reasonable opinion of F.J. Turner, “American history up to the present day has largely been the history of the colonization of the Great West. The existence of a considerable area of free land, its constant recession and the advance of American settlements westwards are the explanations for the development of America” [3]. At the same time, F.J. Turner did not touch upon the problems of the frontier-borders of the Arctic exploration, Russian possessions in Alaska in 1781–1867, when Russia in fact laid the foundation for the economy and culture of Alaska.

Russia can reasonably be called the original Arctic nation in the world history. The process of formation of Russian statehood dates back to the 9th century, from Ladoga, Veliky Novgorod, the Novgorod Veche Republic in 1136–1478. The settlement of northern territories and their gradual transformation into the Russian North ecumene took place in the 10th–13th centuries, as evidenced by the well-known archaeological maps of 1986, 1993, and scientific works of Academician of the Russian Academy of Sciences N.A. Makarov [4, Makarov N.A.] and other domestic scientists. Novgorodians explored geographically the vast Arctic space of the Arkhangelsk and Kola North, Karelia, the coast and waters of the Arctic Ocean seas, and even travelled as far as the Ob River in Siberia. Historical data on the discovery by the Russians of the route to the White Sea can

¹² 2019 DoD Arctic Strategy. June 2019. C. 3. URL: <https://media.defense.gov/2019/Jun/06/2002141657/-1/-1/1/2019-DOD-ARCTICSTRATEGY.PDF> (accessed 10 January 2023).

¹³ 2019 DoD Arctic Strategy. June 2019. Pp. 5–6. Ibid.

also be found in the Icelandic sagas, the history of Saxon Grammar, the annals of Norway [5, Lukin Yu.F., pp. 81–115]. In those distant times, in fact, there was no such state as the United States, its “rules”, there was no American civilization.

The strategy of the US Department of Defense 2019 declared the Arctic to be a shared region and a potential corridor for strategic competition. The strategic territory was seen as a potential vector for an attack on the US, while China and Russia posed different challenges in their theaters of war. The task was to achieve the military advantage of the United States Joint Forces and their allies against China and Russia¹⁴. Thus, stability in the Arctic region, according to the logic outlined in the analyzed Arctic strategy 2019, is ensured primarily by the national interests of the USA and its allies.

The new US strategy — “National Strategy for the Arctic Region” — designed for 2022–2032, was approved by US President Joe Biden on October 7, 2022.¹⁵ It includes a vision of the changing Arctic conditions, strategic framework and guiding principles of US approach. The interests of the United States in the Arctic are indicated, including four main areas:

- *Security*. Containment of threats to the US and allies by building the capabilities necessary to defend their interests in the Arctic, while coordinating common approaches with allies and partners and reducing the risk of unintended escalation.
- *Climate change and environmental protection*. Collaborate with communities and the State of Alaska to build resilience to the impacts of climate change. Work to reduce emissions as part of a broader global mitigation effort to improve scientific understanding and conservation of the Arctic ecosystem.
- *Sustainable economic development*. Strive to improve living conditions in Alaska by investing in infrastructure, improving access to services, and supporting growing sectors of the economy. Work with allies and partners to expand high-quality investment and sustainable development throughout the Arctic region.
- *International cooperation and management*. Despite the challenges to Arctic cooperation, the US intends to work on maintaining Arctic cooperation institutions, including the Arctic Council. The US allegedly seeks to uphold international law, rules, norms and standards in the Arctic¹⁶.

In general, the US strategies for 2019, 2022 clearly aimed at protecting the national interests of the United States and its allies. The military-geo-economic confrontation in the Arctic is constantly growing. As early as 2019, the strategic goal was to achieve the US military advantage against China and Russia. In 2022, tensions in the Arctic are even greater. Russia, first of all, can rely only on its own resources and capabilities.

¹⁴ 2019 DoD Arctic Strategy. June 2019. Pp. 6–7. URL: <https://media.defense.gov/2019/Jun/06/2002141657/-1/-1/1/2019-DOD-ARCTICSTRATEGY.PDF> (accessed 10 January 2023).

¹⁵ National Strategy for the Arctic Region. October 2022. 15 p. URL: <https://www.whitehouse.gov/wp-content/uploads/2022/10/National-Strategy-for-the-Arctic-Region.pdf> (accessed 10 January 2023).

¹⁶ National Strategy for the Arctic Region. October 2022. p. 3.

Northern Sea Route: time of changes

In 2022, the 90th anniversary of the Northern Sea Route (NSR) was celebrated, one of the main sea routes in Russia, acquiring ever-increasing geopolitical and economic significance over time. The volume of cargoes transported along the NSR in the 20th–21st centuries is constantly increasing (Fig. 1).

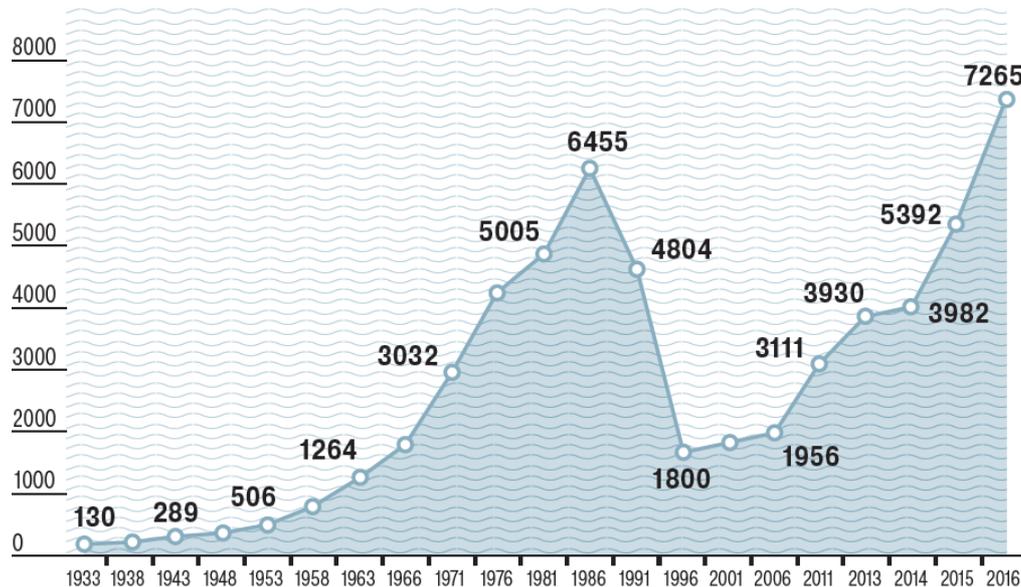


Fig. 1. The volume of traffic along the Northern Sea Route, taking into account transit cargo (thousand tons). FSI “Administration of the Northern Sea Route”, FSUE “Atomflot”¹⁷.

The volumes of freight traffic along the NSR in 2017–2022 are as follows:

2017: 10.7 million tons, including 9.7 million tons (90.65%) by sea vessels, 797.2 thousand tons (7.45%) by river vessels, and 194.4 thousand tons (1.82%) by transit vessels¹⁸.

2018: 20.2 million tons, including transit — 491.2 thousand tons (2.43%). The NSR Administration issued 792 permits for navigation of vessels in the NSR water area, of which 91 permits (11.5%) were issued to foreign-flagged vessels¹⁹.

2019: 31.53 million tons, including 20.5 million tons (65.1% of the total volume) through the port Sabetta, 7.7 million tons (24.4%) through the terminal near Cape Kamenny, 1.5 million tons or (4.8%) through Dudinka. Transit amounted to 697.2 thousand tons (2.21%). In 2019, for the first time, the value of Russian cargo transported on the NSR increased by 25% compared to 2018 and exceeded one trillion rubles²⁰.

¹⁷ Shiroty vysokoy vazhnosti [Latitudes of high importance]. URL: <https://www.kommersant.ru/doc/3254502> (accessed 10 January 2023).

¹⁸ Ob'em perevozok po Sevmorputi v 2017 g. vyros na 42,6 %, do 10,7 mln t. [The volume of transportation along the Northern Sea Route in 2017 increased by 42.6%, to 10.7 million tons] URL: <https://mintrans.gov.ru/press-center/branch-news/176> (accessed 10 January 2023).

¹⁹ Ob'em perevozok gruzov po Sevmorputi v 2018 godu vyros vdvoe — do 20,2 mln t. [The volume of cargo transportation along the Northern Sea Route in 2018 doubled to 20.2 million tons] URL: <https://mintrans.gov.ru/press-center/branch-news/1240> (accessed 10 January 2023).

²⁰ Stoimost' perevezennykh gruzov v 2019 godu po SMP rossiyskikh gruzov prevysila 1 trln rubley — Rosatom [The cost of transported goods in 2019 along the NSR of Russian cargo exceeded 1 trillion rubles — Rosatom]. URL:

2020: 32.97 million tons, including liquefied natural gas (LNG) – 59%, oil – 24%, general cargo – 11%, gas condensate – 3%, oil products – 2%, coal – 1%; transit: 1.281 million tons (3.9%)²¹.

2021: 34.85 million tons, including 7.7 million tons of oil and oil products (22.1%), 19.6 million tons of LNG and gas condensate (56.3%), 221.5 thousand tons of coal, 47.7 thousand tons of ore concentrate and over 4 million tons of other cargo. Transit increased to 2.041 million tons²², which was the highest figure for 2017–2021.

2022: 34.034 million tons, including as of mid-December 2022: oil and oil products – 7.224 million tons, LNG and gas condensate – 20.489 million tons, coal – 295 thousand tons, ore concentrate – 43.5 thousand tons, general cargo – 4.248 million tons²³. The nuclear-powered lighter carrier *Sevmorput* made two state-subsidized coastal trips from European ports to Far East ports²⁴.

In 2022, amid a special military operation in Ukraine, the American oil service company Baker Hughes, British BP, Norwegian Equinor and Statoil, Danish Maersk, British-Dutch Shell, French Total Energies SE and others left projects in Russia²⁵. Due to US and EU economic sanctions, shipments of oil, gas and other cargo to Western countries from the Russian Arctic and Far East are decreasing.

The demand for cargo transport in the Arctic depends on a variety of factors, including economic conditions, but also global climate change, the transition to a green economy and the West's refusal to exploit the oil and gas resources of the Russian Arctic. Climate change risks in the Russian North are associated with melting permafrost and the resulting threat to buildings and structures; with forest fires, floods, drought, and other natural disasters. The growth in the capacity of shipbuilding and ship repair enterprises, the creation of the latest icebreaking fleet vessels for efficient use of the capabilities of the Northern Sea Route in the most difficult international situation remains relevant. The Asian geopolitical and economic turn of Russia to the East brings

<https://www.rosatom.ru/journalist/smi-about-industry/stoimost-perevzyennykh-v-2019-godu-po-smp-rossiyskikh-gruzov-prevysila-1-trln-rublej-rosatom/> (accessed 10 January 2023).

²¹ Severnyy morskoy put': itogi 2020 goda. Makety infografiki [Northern Sea Route: results of 2020. Infographic layouts]. URL: <https://arctic.gov.ru/wp-content/uploads/2021/02/2020.pdf> (accessed 10 January 2023).

²² Gruzooborot Sevmorputi v 2021 godu: rost sverkh ozhidaniy. Ob"em perevozok gruzov po Sevmorputi v ne-skol'ko raz prevzoshel rekordy Sovetskogo Soyuzha [Cargo turnover of the Northern Sea Route in 2021: growth beyond expectations. The volume of cargo transportation along the Northern Sea Route several times exceeded the records of the Soviet Union]. URL: <https://arctic-russia.ru/article/gruzooborot-sevmorputi-v-2021-godu-rost-search-ophidiid/> (accessed 10 January 2023).

²³ Plan gruzopotoka po Sevmorputi prevyshen na 2 mln t v 2022 godu [The plan for cargo traffic along the Northern Sea Route was exceeded by 2 million tons in 2022]. URL: https://www.korabel.ru/news/coments/plan_gruzopotoka_po_sevmorputi_prevyshen_na_2_mln_tonn_v_2022_godu.html (accessed 10 January 2023).

²⁴ Ob"em perevezennykh gruzov po SMP v 2022 godu sostavil 34,034 mln t. [The volume of cargo transported along the NSR in 2022 amounted to 34.034 million tons]. URL: <https://rosatom.ru/journalist/news/obem-perevezennykh-gruzov-po-severnomu-morskomu-puti-v-2022-godu-sostavil-34-034-mln-tonn/> (accessed 13 January 2023).

²⁵ Global'nyy nefteservis ukhodit iz Rossii: shans dlya otechestvennogo biznesa [Global Oilfield Service Leaves Russia: A Chance for Domestic Business] // Redaktsiya «Federal Press» [Editorial Board of Federal Press] / Dmitriy Koptev. URL: <https://fedpress.ru/article/2953054; Kakie kompanii ushli iz Rossii: spisok na 18 yanvarya 2023 goda> [Which companies left Russia: a list as of January 18, 2023] / Ilya Shevchenko. URL: <https://grandguide.ru/kakie-kompanii-uhodyat-iz-rossii/> (accessed 18 January 2023).

new opportunities and challenges. Growth in freight traffic in 2021–2022 opens a new window of opportunity for both the Russian state and domestic business, the growth of Russian investment in the Russian Arctic, the development of FSBI GlavSevmorput, the large Northern Sea Route from Murmansk to Vladivostok, including coastal voyages.

FSBI GlavSevmorput was established in 2022 by Order of the Government of the Russian Federation dated July 23, 2022 No. 2019-r. The functions and powers of the founder and owner of the property of this federal state budgetary institution are carried out by the State Atomic Energy Corporation Rosatom. FSBI GlavSevmorput includes the FSUE Atomflot Marine Operations Headquarters, functions and separate personnel of the FSBI Administration of the Northern Sea Route of Rosmorrechflot of the Ministry of Transport of Russia. The creation of the FSBI GlavSevmorputi, according to V.V. Ruksha, Deputy General Director of the State Atomic Energy Corporation Rosatom, Director of the Directorate of the Northern Sea Route: *“This is not a distribution of powers, this is a matter of creating a “single window” so that the ship-owner does not apply to three or four different places, but has the opportunity to quickly contact one place, and this place will be able to consolidate information and give it to the ship-owner”*²⁶. GlavSevmorput provides ice-breaking assistance to vessels, development of navigation routes, arrangement of the icebreaking fleet, taking into account hydrometeorological, ice and navigational conditions. The most important function is the issuance, suspension, renewal and termination of permits for navigation of ships in the NSR²⁷.

In January 2022, the Government of the Russian Federation decided to combine the action plans for the development of the NSR, which were prescribed in two federal projects up to 2024 and 2030, into one federal project (FP) up to 2030 — *“Year-round Northern Sea Route”*²⁸. Thus, starting from 2022, the FSBI GlavSevmorput of the Rosatom State Corporation will actually become the sovereign owner on behalf of the Russian state in the operating water area of the Northern Sea Route.

In the new electronic global reality, the activities of the State Corporation Rosatom, which is developing the *“Unified Platform for Digital Services on the Northern Sea Route”* (abbreviated as UPDS NSR), aimed at digitalizing the NSR, ensuring the safety of navigation and dispatching the fleet in the Arctic, deserve the highest praise. The UPDS NSR provides for servicing up to 1500 unique users, who will be provided with 27 digital services, including:

- satellite navigation and communications;

²⁶ Rosatom vossozdast FGBU «Glavnoe upravlenie Severnogo morskogo puti» [Rosatom will recreate the Main Directorate of the Northern Sea Route]. URL: <http://www.morvesti.ru/news/1679/96214/> (accessed 09 January 2023).

²⁷ Charter of the Federal State Budgetary Institution "Main Directorate of the Northern Sea Route" as amended on July 25, 2022, pp. 1–15. URL: <https://nsr.rosatom.ru/upload/iblock/bb9/Ustav.pdf> (accessed 06 January 2023).

²⁸ Resheno ob'edinit' federal'nye proekty «Razvitie Severnogo morskogo puti» i «Severnyy morskoy put' — 2030» v odin — «Kruglogodichnyy Sevmorput'» [It was decided to unite the federal projects "Development of the Northern Sea Route" and "Northern Sea Route—2030" into one — "Year-Round Northern Sea Route"]. URL: <https://www.arcticway.info/resheno-obedinit-federalnye-proekty-razvitie-severnogo-morskogo-puti-i-severnyy-morskoy-put-2030-y> (accessed 13 January 2023).

- data collection and assessment of the environmental situation in the water area of the NSR;
- provision of data on the location of rescue and medical services;
- collection of chronological statistical information about the passage of vessels, including speed parameters by region;
- navigational charts and navigational and hydrographic support;
- compilation of detailed weather forecasts for specific areas of the NSR water area;
- development and construction of optimal routes for ships, depending on navigation, hydrometeorological information and ice conditions;
- computer vision — operational identification and assessment of ice conditions;
- monitoring the development of ice conditions in the water area of the NSR;
- artificial intelligence — models of deep data analysis, modelling and decision-making support ²⁹.

Leading design organizations and scientific institutes are involved in the creation of the UPDS NSR: JSC Greenatom, JSC Sitronics, JSC CNIIMF, Center for Marine Research of Lomonosov Moscow State University, Moscow Institute of Physics and Technology. Work on the UPDS NSR will be completed in 2024. The project will cost about 2.9 billion rubles, including funds allocated from the federal budget ³⁰.

In January 2023, the Government of the Russian Federation adopted additional decisions to ensure year-round navigation in the Arctic. The rules for granting subsidies for the creation of a digital ecosystem of the Northern Sea Route were approved. For this purpose, the federal budget allocated 3.8 billion rubles for 2023–2024 ³¹. To ensure the efficient operation of the Northern Sea Route in the 21st century, it is important to use modern technologies, digital services, the existing capabilities of the Russian state, research centers, NArFU named after M.V. Lomonosov and other universities of the Russian Arctic, the activity and initiative of youth and students.

The Government of the Russian Federation approved the “Plan for the development of the Northern Sea Route for the period up to 2035” by the order of August 1, 2022 ³². Its main goals are

²⁹ Direktsiya SMP Goskorporatsii «Rosatom» zavershila razrabotku kontseptsii Edinoy platformy tsifrovyykh servisov, predostavlyayemykh v akvatorii Severnogo morskogo puti (EPTsS SMP) [The Directorate of the NSR of ROSATOM has completed the development of the concept of the Unified Platform for Digital Services Provided in the Water Area of the Northern Sea Route (UPDS NSR)]. URL: <https://www.atomic-energy.ru/news/2021/12/15/120297> (accessed 10 January 2023).

³⁰ O khode razrabotki Edinoy platformy tsifrovyykh servisov na Sevmorputi [On the development of the Unified Platform for Digital Services on the Northern Sea Route]. URL: <https://seanews.ru/2022/06/16/ru-o-hode-razrabotki-edinoy-platformy-tsifrovyykh-servisov-na-sevmorputi/> (accessed 10 January 2023).

³¹ Mikhail Mishustin: Pravitel'stvo profinansiruet infrastrukturnye proekty dlya razvitiya SMP [Mikhail Mishustin: The government will finance infrastructure projects for the development of the NSR]. URL: <https://ru.arctic.ru/infrastructure/20230116/1014181.html> (accessed 16 January 2023).

³² Rasporyazhenie Pravitel'stva RF ot 1 avgusta 2022 g. № 2115-r «Ob utverzhdenii plana razvitiya Severnogo morskogo puti na period do 2035 goda» [Decree of the Government of the Russian Federation of August 1, 2022 No.

to ensure reliable and safe transportation of cargoes and goods for people living in the Far North, as well as to create conditions for the implementation of investment projects in the Arctic zone of the Russian Federation. The list of 150 activities of this plan includes the construction of terminals, coastal and hydrotechnical structures, bunkering and maintenance bases; creation of marine transshipment complexes for liquefied natural gas, a hub port for organizing transit traffic in Vladivostok, a transport and logistics hub in the seaport of Korsakov on Sakhalin; development of Murmansk and Arkhangelsk transport hubs. The icebreaking fleet is being updated, including nuclear-powered icebreakers of the Leader project. It is planned to build an emergency rescue fleet of 46 ships and equip the Arctic integrated emergency rescue centers of the Ministry of Emergency Situations with helicopters. An Arctic satellite constellation is being created to provide hydro-meteorological and navigational support for navigation and climate change assessment³³. The measures implemented and planned by the Government of the Russian Federation have a positive impact on the development of the NSR in 2022–2023.

The boundaries of the NSR water area are officially defined by the Rules of navigation in the water area of the Northern Sea Route, approved by the Decree of the Government of the Russian Federation of September 18, 2020 No. 1487 with amendments and additions of September 19, 2022:

“When a vessel is sailing to the waters of the Northern Sea Route from the west 48 hours before approaching the western border of the Kara Gate, Matochkin Shar or Yugorskiy Shar straits, or before approaching the meridian 68 degrees 35 minutes east longitude (hereinafter referred to as the western border), and when the ship to the water area of the Northern Sea Route from the east 48 hours before approaching the parallel of 66 degrees 05 minutes north latitude and (or) to the meridian 168 degrees 58 minutes 37 seconds west longitude (hereinafter referred to as the eastern border) or immediately after leaving the seaport, located outside the water area of the Northern Sea Route (if the sailing time of the vessel after leaving the seaport to the western or eastern border is less than 48 hours)”³⁴.

The captain of any ship is obliged to inform the authorized body about the planned time (Moscow time) of the ship’s arrival to the western or eastern border, respectively, as well as specific information on 14 points, including the port and destination, the weight of the transported cargo, fuel, fresh water and food, the number of crew members and passengers on the ship, the

2115-r "On approval of the plan for the development of the Northern Sea Route for the period up to 2035". URL: <https://www.garant.ru/products/ipo/prime/doc/405010751/> (accessed 16 January 2023).

³³ Rasporyazhenie Pravitel'stva RF ot 1 avgusta 2022 g. № 2115-r «Ob utverzhdenii plana razvitiya Severnogo morskogo puti na period do 2035 goda» [Decree of the Government of the Russian Federation of August 1, 2022 No. 2115-r "On approval of the plan for the development of the Northern Sea Route for the period up to 2035"]. URL: <https://www.garant.ru/products/ipo/prime/doc/405010751/> (accessed 16 January 2023).

³⁴ Postanovlenie Pravitel'stva RF ot 18 sentyabrya 2020 g. N 1487 «Ob utverzhdenii Pravil plavaniya v akvatorii Severnogo morskogo puti». S izmeneniyami i dopolneniyami ot 19 sentyabrya 2022 g. [Decree of the Government of the Russian Federation of September 18, 2020 N 1487 "On approval of the Rules for navigation in the waters of the Northern Sea Route", with amendments and additions from September 19, 2022] URL: <https://base.garant.ru/74664152/> (accessed 05 January 2023).

estimated date and time (Moscow time) of the ship's entry into the NSR water area, indicating the geographical coordinates of the planned NSR border crossing point and the planned end date of navigation in the NSR water area.

In view of the above, it is quite natural to suggest that the geographically included seaports of Korsakov on Sakhalin and Vladivostok are in the plan for the development of the Northern Sea Route as well as Arkhangelsk and Murmansk transport hubs; Kamchatka Krai and Murmansk Oblast, which are not officially part of the NSR. These and other objects in terms of meaning do not belong to the small water area of the NSR, but to the large water area of the "Northern Sea Transport Corridor" from Murmansk to Vladivostok or the so-called "Great Northern Sea Route".



Fig. 2. The Northern Sea Route: Murmansk, Anadyr, Petropavlovsk-Kamchatskiy, Vladivostok³⁵.

The water area of the Northern Sea Route, in which GlavSevmorput operates, legitimately includes only four seas: the Kara, Laptev, East Siberian, and Chukchi. The Barents and Bering Seas are included in the list of ports in the Arctic Basin. The official website of Rosatom informs: *"The Northern Sea Route (NSR) is a shipping route, the main sea communication in the Russian Arctic. It runs along the northern coast of Russia along the seas of the Arctic Ocean (the Barents Sea, the Kara Sea, the Laptev Sea, the East Siberian Sea, the Chukchi Sea and the Bering Sea). The NSR connects the European and Far Eastern ports of Russia, as well as the mouths of navigable Siberian rivers into a single transport system"*³⁶.

That is actually the unified transport system, ensuring security in the seas of the Arctic basin and the Far East. Under the conditions of Western sanctions and the Asian vector of Russia to the east, such an approach is extremely necessary, quite logical and justified. It seems to be a matter of officially establishing a unified maritime north-eastern transport system of Russia at the state level, possibly as early as 2023. Time is getting denser every day.

³⁵ Rosatom vossozdast FGBU «Glavnoe upravlenie Severnogo morskogo puti» [Rosatom will recreate the Federal State Budgetary Institution "Main Directorate of the Northern Sea Route"]. URL: <http://www.morvesti.ru/news/1679/96214/> (accessed 16 January 2023).

³⁶ Development of the Northern Sea Route. URL: <https://www.rosatom.ru/production/fleet/> (accessed 08 January 2023).

The Arctic Basin

The Arctic Basin, where Rosmorport operates, officially includes 16 seaports³⁷ of the Murmansk, Arkhangelsk and Anadyr branches: Varandey, Vitino, Dikson, Dudinka, Kandalaksha, Murmansk; Arkhangelsk, Mezen, Naryan-Mar, Onega, Sabetta; Anadyr, Beringovskiy, Pevek, Provideniya, Egvekinot. The annual delivery of coal, fuel, products, timber and general cargoes, containers to the hard-to-reach areas of the Far North, including those connected with sea and river transport, takes its permanent niche in the volume of cargo flows through seaports.

Total cargo turnover of the seaports of the Arctic Basin in 2020–2022:

2020: 96 million tons, 8.4% less than in 2019. Of which: 30.1 million tons of dry cargo, 65.9 million tons of liquid cargo. Cargo turnover of ports: Murmansk — 56.1 million tons, Sabetta — 27.8 million tons, Varandey — 4.9 million tons, Arkhangelsk — 3.3 million tons³⁸.

2021: 94.3 million tons, decreased by 1.7 million tons (1.9%) compared to 2020. Of which: 29.0 million tons of dry cargo, 65.3 million tons of liquid cargo. Cargo turnover of ports: Murmansk — 54.5 million tons, Sabetta — 27.9 million tons, Varandey — 4.6 million tons, Arkhangelsk — 3.2 million tons³⁹.

2022: 98.5 million tons, 4.4% more than in 2021. The volume of liquid cargo transshipment increased by 5.7% to 69.1 million tons, dry cargo — by 1.5% to 29.4 million tons⁴⁰. In just three years, almost 289 million tons of cargo was transported in the Arctic Basin.

At the state level, the Russian Federation uses double statistics on the volume of transported goods: firstly, the volume of cargo transportation only in the water area of the NSR; secondly, the cargo turnover of the seaports of the Russian Arctic basin. At the same time, there are no seaports of the Barents, White, Pechora seas in the data of cargo transportation along the Northern Sea Route, as if they do not exist in the Russian Arctic at all. And the sea ports of Far East Basin of the FSUE Rosmorport — Vladivostok, Magadan, Okhotsk, Petropavlovsk-Kamchatskiy and others — are not officially included in the Arctic Basin. That is, the Russian Federation operates a dual management system in the seas of the unified Russian Arctic.

Due to Russia's ongoing Asian turn to the east in international relations, increasing cargo traffic to Asia (China, India and other countries), and sanctions, there is no reason to fear innovation in any decisions made. There is a need to bring management, existing norms, rules of navigation in the northern seas of our country into line with the existing reality in the economy, politics, to ensure the security of the entire Russian Arctic.

³⁷ Rosmorport. Enterprise services. URL: <https://www.rosmorport.ru/services/seaports> (accessed 08 January 2023).

³⁸ Cargo turnover of Russian seaports for 12 months of 2020. URL: <https://www.morport.com/rus/news/gruzooborot-morskih-portov-rossii-za-12-mesyacev-2020-goda> (accessed 17 January 2023).

³⁹ Cargo turnover of Russian seaports for 12 months of 2021. URL: <https://www.morport.com/rus/news/gruzooborot-morskih-portov-rossii-za-12-mesyacev-2021-g> (accessed 18 January 2023).

⁴⁰ Gruzoooborot morskikh portov Arkticheskogo basseyna v 2022 godu vyros na 4,4% [Cargo turnover of the seaports of the Arctic Basin in 2022 increased by 4.4%]. URL: <https://b-port.com/index.php/news/276010> (accessed 18 January 2023).

Author's proposals concerning the Russian Arctic and the Far East

- Firstly, ensuring security in the Russian Arctic and the Far East, including the entire water area from Murmansk to Vladivostok, is becoming one of the current priorities of the Russian Federation in the new historical conditions. The Ministry of Defense of the Russian Federation proposed in 2022 to amend the federal law “On internal sea waters, the territorial sea and the contiguous zone of the Russian Federation”, to change the rules for passage along the Northern Sea Route. As a result, the President of the Russian Federation V.V. Putin signed Law No. 155-FZ of July 31, 1998, as amended on December 5, 2022, establishing the rules for the passage of ships, including foreign warships, through internal sea waters. It draws attention to the fact that all kinds of prohibitions and permissions, in essence (not formally), refer not only and not so much to the small water area of the Northern Sea Route, but precisely to the entire Russian Arctic and the Far East, all internal sea waters, territorial seas, as well as military and tourist ships, the use of natural resources. In this regard, the current federal law, as amended on December 5, 2022, covers many issues of maritime activities, ensuring security in the Russian Arctic and becomes, to some extent, a benchmark of subsequent changes.

- Secondly, the Russian Arctic and the Far East are becoming closer and clearer to each other in every sense. The Eastern Economic Forum (EEF-2022), held in Vladivostok under the topic “Towards a Multipolar World” brought together more than seven thousand participants from 68 countries. In the first three days of the EEF-2022, 260 agreements were signed for a total of 3 trillion 255 billion rubles. The development of investment projects in the Far East continues actively. In 2022 2760 new investment projects were implemented with state support, investments in the amount of 2 trillion 880 billion rubles were made and 107.5 thousand jobs were created, 554 enterprises were put into operation. The infrastructure of the territories of advanced social and economic development is being developed. It makes sense to create a unified maritime northeastern transport system of Russia. The digital services of the “Unified Platform for Digital Services on the Northern Sea Route” can and should be used both in the marine area of the Arctic Basin and in the seas of the Far East.

- Thirdly, it makes sense to make the necessary amendments and additions to the previously adopted “Rules of navigation in the water area of the Northern Sea Route” by clearly defining the water area of the FGBU GlavSevmorput from Murmansk to Vladivostok, stipulating all the necessary provisions. There are two options here. The first option: “Rules of the passage of vessels in the water area of the Northern Sea Route” are applied only in the small water area of the NSR, as a sectoral part of the large Northern Sea Route from Murmansk to Vladivostok. The second option: the effect of these rules to ensure safety extends not only to the small water area of the NSR, but also to the entire large water area of the Northern Sea Transport Corridor without any exceptions, with the addition of the seaports of the Far Eastern Basin of Rosmorport — Vladivostok, Petropavlovsk-Kamchatskiy and others.

- Fourthly, it is time to merge the existing maritime administrative structures and sea-ports of FSUE GlavSevmorput and FSUE Rosmorport into a single structure. The process of unification of departments in one management structure has already begun since July 2022 due to the transfer of functions and individual personnel of the FSBU “Administration of the Northern Sea Route” from Rosmorrechflot of the Ministry of Transport of Russia to the FSBI GlavSevmorput. Methodologically, in order to improve the quality of state administration in the Arctic and the Far East, the interaction between different structures and to achieve the best results in their activities, such a merger of federal authorities and management bodies is quite mature and can be implemented without large costs and staff reductions.

- Fifthly, in any of the options for reorganizing the management of the large water area of the northern seas of the Russian Arctic and the Far East, it is important to retain the historical name “Main Directorate of the Northern Sea Route”.

“Trans-Arctic Sea route” — an international sea route in the Arctic

The operation of Arctic shipping lanes in the near future poses another huge challenge, largely dependent not on the will of people and states, but on climate change and the melting of the Arctic ice. We are talking about the transport circumpolar corridor “Trans-Arctic Sea route” (TSR)⁴¹. This route, about 3900 km long, passes through the North Pole and is about 1500 km shorter than the NSR. Not only the West, but also China is betting on the use of TSR in the future.

The Arctic is heating up faster than anywhere else on Earth, according to PhD Nathanael Melia from the University of Victoria (UK). Satellite observations show that the Arctic region is losing sea ice at a tremendous rate. Sea ice losses create opportunities for shorter global trade links between East Asia and the UK across the Arctic. The Arctic shipping season may triple by the middle of the 21st century. The ongoing climate change and the melting of the Arctic ice are opening up the Trans-Arctic Sea route (TSR) for exploitation by the United States, China and other countries, effectively reducing the significance of the Russian Northern Sea Route. Transarctic flights are currently focused on two main routes: 1) the Northern Sea Route (NSR), along the northern coast of Russia for cargo flows and travel between Europe and Asia; 2) Northwest Passage (NWP), through the Canadian Archipelago as a route from the US East Coast to Asia. The circumpolar Trans-Arctic Sea route (TSR) will become the fastest and most direct route in the future. Statistical data on transit along the NSR and NWP, based on data from the Arctic Logistics Information Office 2015 and Canadian Coast Guard 2015, showed an overall increase in trans-Arctic voyages. Shipping experts agree that these few voyages are still exploratory in nature, “testing the waters” to understand whether the Arctic routes are economically viable [6].

Sea routes in the Arctic are being gradually explored by China, exploring the possibilities of the TSR. China positions itself as an Arctic state and is a member of the Arctic Council. Chapter 33

⁴¹ See, for example, map TSR / Czesław Dyrz, Polish Rear Admiral, Doctor of Technical Sciences in Geodesy and Cartography, Master of Geography, Rector of the Polish Naval Academy in 2007-2015. URL: <https://t.me/sevmorput/2956> (accessed 10 January 2023).

of the 14th Five-Year National Economic and Social Development Plan and the outline of long-term goals for 2035 explicitly states: “Participate in practical cooperation in the Arctic and build the Ice Silk Road”⁴².

The well-known scientific work of D.A. Medvedev, R.A. Polponchik and L.A. Checker “China’s Arctic policy in the first quarter of the 21st century” edited by Doctor of Technical Sciences S.N. Grinyaev, published in 2020, is devoted to the study of directions and tools of practical programs of China’s Arctic development. According to the authors of the book, a balanced and compromise approach to cooperation with China in the Arctic seems optimal for Russia. It is possible that China may demand the status of neutral waters for the Northern Sea Route. Despite the intensive negotiation process, the current state of affairs can be characterized by the Chinese proverb “Hot in politics, cold in economics” [7, Medvedev D.A., Polonchuk R.A., Shashok L.A., pp. 62–73, 75].

Discoveries and naming of geographical objects in the Russian Arctic

Global climate change has been affecting the Arctic “weather kitchen” for a number of years, affecting changes in the Arctic landscape that are becoming more and more visible. The ongoing increase in air and water temperature in the Arctic since the last mapping of Novaya Zemlya and Franz Josef Land archipelagos in the beginning of the 1950s showed an increased reduction of their glaciation area, had a significant impact on the natural landscape and led to formation of new geographical objects. Typical of the marginal parts of land-based glaciers, single rocks or rocky peaks rising above the glacier surface and flowing around it, so-called “nunataks” (in Eskimo language: “nuna” — lonely, “tak” — peak) turned into capes and islands, and valleys and fjords into bays. These and other climatic challenges required systematic oceanographic research aimed at ensuring safety of general navigation and maritime activities in the seas of the Arctic Ocean [8].

During 2015–2017 alone, new geographical features were identified and mapped: 12 islands, 14 capes, one strait, six bays. Previously discovered objects that were not marked on maps were mapped: Rozhkov Island in the Krivoshein Bay; the strait separating the island of Northbrook, with the conventional name “Gaydovskiy Strait”; a cape in the Glazov Bay with the conventional name “Krugosvetka” (the new proposed name is “Cape of Admiral Vladimirskiy”). The following are distinguished as new geographical objects: Bepokoiniy Strait; two islands with conventional names West Northbrook and East Northbrook. The disappearance of the island of Perlamutrovyy in the archipelago of Franz Josef Land was recorded [8, Kornis A.V., Sharomov A.V., p. 106]

Joint expeditions of the Northern Fleet and the Russian Geographical Society explored Novaya Zemlya in 2018, the islands of Franz Josef Land in 2019, and Severnaya Zemlya, Taimyr, the New Siberian Islands and Wrangel Island in 2020 in the process of implementing a single historical and cultural project “The Main Facade of Russia. History, events, people”. The 2021 expeditionary

⁴² Chetyrnadtsatyy pyatiletniy plan natsional'nogo ekonomicheskogo i sotsial'nogo razvitiya Kitayskoy Narod-noy Respubliki i Nabrski dolgosrochnykh tseley na 2035 god [Fourteenth Five-Year Plan for the National Economic and Social Development of the People’s Republic of China and Outline of Long-term Goals for 2035]. URL: http://www.gov.cn/xinwen/2021-03/13/content_5592681.htm (accessed 06 January 2023).

season was postponed to 2022 due to a prolonged repair of the Ilya Muromets icebreaker, but part of the planned research on Novaya Zemlya was carried out by military personnel. The route of Fyodor Rozmyslov along Matochkin Shar and the flight of the first Arctic pilot Jan Nagurskiy along the entire coast of Novaya Zemlya were reconstructed⁴³. The tasks of the 2022 expedition included studying the routes of polar expeditions of past years, searching for and monitoring the state of cultural heritage sites and scientific research on the seismicity of the Arctic region, local manifestations of strong earthquakes, active tectonic movements⁴⁴.

Taking into account the constant changes taking place not only in the Arctic, the Federal Service for State Registration, Cadastre and Cartography (Rosreestr) proposed changing the approach to maintaining the "State catalogue of geographical names", which contains the names of geographical objects, for each subject of the Russian Federation⁴⁵. According to O.A. Skufinskiy, head of Rosreestr, the creation of the "Unified information system of geographical object names" will make it possible to clarify, update and digitize data, to make access to them as convenient as possible, and to optimize the process of interaction in the field of naming geographical objects. *"This will become one of the drivers of economic growth in the regions and the territorial development of the country as a whole"*⁴⁶. By order of the Federal Service for State Registration, Cadastre and Cartography dated June 22, 2022 No. P / 0242, a new procedure for identifying existing names of geographical objects, including the Arctic region, was approved⁴⁷.

As of August 1, 2022, an amendment was made to the current federal law of 1997. The effect of the Federal Law of the Russian Federation "On the names of geographical objects" as amended in 2022 applies to the continental shelf (seabed and its subsoil), the exclusive economic zone of the Russian Federation, unless otherwise provided by international treaties of the Russian Federation (Article No. 3)⁴⁸. The Russian Federation has sovereign rights and exercises jurisdiction on the Arctic continental shelf in the manner determined by at least ten acts of the federal level and international law, including the UN Convention on the Law of the Sea of December 10, 1982. According to this Federal Law, geographical objects include continents, oceans, seas, bays, straits,

⁴³ «Glavnyy fasad Rossii» [The main facade of Russia]. URL: <https://www.rgo.ru/ru/ekspedicii/glavnyy-fasad-rossii> (accessed 17 January 2023).

⁴⁴ Zemletryaseniya na Novoy Zemle: uchenye podelilis' podrobnostyami ekspeditsii [Earthquakes on Novaya Zemlya: scientists shared the details of the expedition]. URL: <https://www.techinsider.ru/science/1555527-zemletryaseniya-na-novoy-zemle-uchenye-podelilis-podrobnostyami-ekspeditsii/> (accessed 17 January 2023).

⁴⁵ Gosudarstvennyy katalog geograficheskikh nazvaniy [State catalog of geographical names]. URL: <https://cgkipd.ru/science/names/reestry-gkgn.php> (accessed 18 January 2023).

⁴⁶ Rosreestr predlozhit sozdat' GIS naimenovaniy geograficheskikh ob'ektov [Rosreestr proposed to create a GIS of names of geographical objects]. URL: <https://d-russia.ru/rosreestr-predlozhit-sozdat-gis-naimenovaniy-geograficheskikh-obektov.html> (accessed 01 January 2023).

⁴⁷ Ob utverzhdenii poryadka vyyavleniya sushchestvuyushchikh naimenovaniy geograficheskikh ob'ektov / Prikaz federal'noy sluzhby gosudarstvennoy registratsii, kadastra i kartografii ot 22 iyunya 2022 g. № P/0242 [On approval of the procedure for identifying existing names of geographical objects / Order of the Federal Service for State Registration, Cadastre and Cartography dated June 22, 2022 No. P / 0242]. URL: https://rulaws.ru/acts/Prikaz-Rosreestra-ot-22.06.2022-N-P_0242/ (accessed 27 December 2022).

⁴⁸ Federal'nyy zakon «O naimenovaniyakh geograficheskikh ob'ektov» (po sostoyaniyu na 1 avgusta 2022 goda) [Federal Law "On the Names of Geographical Objects" (as of August 1, 2022)]. URL: http://komitet4.km.duma.gov.ru/upload/site28/152-FZ_na_01.08.2022.pdf (accessed 27 December 2022).

islands, mountains, rivers, lakes, glaciers, deserts and other natural objects; republics, territories, regions, autonomous oblasts and districts; cities and other settlements; all administrative-territorial formations (units); railway stations, seaports and river ports, airports. Article No. 9 of the Federal Law defines the procedure for assigning and renaming geographical objects. Geographical objects may be named after persons directly involved in their discovery, study, development or foundation. The names of state and public figures, representatives of science and culture and other persons who have merit before the state can be posthumously assigned to geographical objects that do not have names. The assignment of the same name to several homogeneous geographical objects within the boundaries of an administrative-territorial entity (administrative-territorial unit) is not allowed ⁴⁹.

New names in the Russian Arctic have been given to two nameless islands located on the territory of the Arkhangelsk Oblast and part of the Franz Josef Land archipelago — West Northbrook and East Northbrook. Cape Bulanova and Kuznetsov Island, Cape Afanasev, Cape Admiral Vladimirskiy, Cape Mamontov, Cape Moroz, Buchmeyer and Osokin Islands appeared on the Novaya Zemlya archipelago. This is done to commemorate the hydrographers and geodesists who have made a significant contribution to the exploration and study of the Arctic: Bulanov Boris Vasilyevich (1945–1998), Kuznetsov Valentin Pavlovich; participants of the Great Patriotic War, Lieutenant Commander Fyodor Prokopyevich Afanasev (1912–1988) and Admiral Lev Anatolyevich Vladimirskiy (1903–1973); Mamontov Vasily Alekseevich (1913–1983) ⁵⁰, Moroz Ivan Danilovich (1914–2005), Bukh Meyer Vsevolod Vasilyevich (1905–1988), Osokin Igor Vasilyevich (1914–1996).

FSUE “Hydrographic Enterprise” is planning to survey over 320 thousand kilometres of bottom topography in the waters of the Northern Sea Route in the period from 2020 to 2024. The increase in cargo traffic to the east, due to the sanctions against Russia, objectively requires an increase in the volume of cartographic study of the eastern section of the Northern Sea Route. Therefore, in 2022, hydrographers worked a lot in the East Siberian Sea, the Sannikov Strait, the Laptev Sea and the Kolyma River. In total, over 30 thousand linear kilometers were explored in the eastern section of the NSR, which accounted for approximately 67% of the total scope of work. Based on the results of the summer-autumn navigation in 2022, the Hydrographic Enterprise of the State Corporation Rosatom surveyed 45.2 thousand linear km of the bottom topography in the waters of the Northern Sea Route. This is the maximum figure in the history of modern Russia ⁵¹. This work, so necessary in the Arctic, continues.

⁴⁹ Federal'nyy zakon «O naimenovaniyakh geograficheskikh ob"ektov» (po sostoyaniyu na 1 avgusta 2022 goda) [Federal Law “On the Names of Geographical Objects” (as of August 1, 2022)]. URL: http://komitet4.km.duma.gov.ru/upload/site28/152-FZ_na_01.08.2022.pdf (accessed 27 December 2022).

⁵⁰ Kalendar' pamyatnykh dat Arktiki — Arktik-fond [Calendar of Memorable Dates of the Arctic — Arctic Fund]. URL: <https://arctic.narfu.ru/kalendar-pamyatnih-dat> (accessed 18 January 2023).

⁵¹ «Gidrograficheskoe predpriyatie» Rosatoma vypolnilo rekordnyy ob'em issledovaniy akvatorii Severnogo morskogo puti [The Hydrographic Enterprise of Rosatom has completed a record volume of surveys of the water area of the Northern Sea Route]. URL: <https://www.rosatom.ru/journalist/news/gidrograficheskoe-predpriyatie-rosatoma-vypolnilo-rekordnyy-obyem-issledovaniy-akvatorii-severnogo-m/> (accessed 30 December 2022).

Conclusion

In conclusion, it is important to note that Russia is gradually focusing and adequately responding in the Arctic to modern civilizational challenges in the context of the permanent variability of the entire global society. I agree with the assessment made by scientists S.Yu. Kozmenko and A.S. Kozmenko about the beginning of the decline of globalization as the dominant direction of modern geopolitics and geoeconomics, the impact of a special military operation on the destruction of the “liberal economic model” [9, p. 39]. Increasing the role of the Russian state in the development of the Arctic region and the Far East is becoming a strategic goal of the domestic and foreign policy of the Russian Federation.

It is difficult to foresee all force majeure circumstances in a constantly changing world, which was very clearly shown by the coronavirus pandemic, the US presidential election, the war in Nagorno-Karabakh, and the special military operation in Ukraine. Russia has the ability and resources to successfully overcome emerging difficulties by consistently improving its public administration system, solving acute international and domestic problems of the development of the Russian Arctic, the Far East, the great Northern Sea Route in the logic of realizing its national interests, using modern technologies, digitalization, all available potential and accumulated experience of its development in the 20th–21st centuries.

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