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## PROBLEMS AND ASSUMPTIONS OF TRANSPORT DEVELOPMENT IN THE REGIONS OF THE ARCTIC ZONE OF THE RUSSIAN FEDERATION. MESSAGE 1

**Abstract:** in the article, the object of research is the State Program of the Russian Federation "The main trends in the spatial development of territories included in the Arctic zone of the Russian Federation" for the period up to 2035 as an expression of the policy of the Federal Center pursued in relation to the regions. The subject of the study are the elements of the above program, which, in conflict with regional specifics, hinder the achievement of the goals set in government documents. The analysis of the conducted research is the formation of an understanding of how the regions of the Arctic zone should be taken into account when formulating federal policy aimed at their socio-economic development. In order to achieve this goal, it is necessary to solve a number of tasks in the Russian Arctic.

**Key words:** spatial development, priority, technical regulation, certification, standardization, financial condition, profitability, profit, demand, preferences, demand, competitiveness, social and economic well-being of nine regions of the Arctic zone of the Russian Federation.

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## Introduction

UDC 339.58:519.67

The natural Arctic is defined by the Arctic Circle, all territories located to the north beyond it were previously called the Arctic. Now this name is leaving the lexicon, as the name "Arctic" is fixed in accordance with international standards. In the work of the economic geographer and specialist in the northern regions and the Arctic, A.N. Pilyasov describes how the territories differed in Soviet times: the Arctic was a closed topic, all scientific work was classified as "secret", the same applied to defense issues; The High North was land-based and was an open topic, addressing the following questions:

- the main geopolitical disputes in the modern Arctic;
- the main international "bridges" in the Arctic of the past and at present, separate ways of communication, excluding classical international relations;
- districts, development which are most closely associated with strategic the interests of the countries.

When Peter I brought coffee to Russia, the North became the "entrance gate" of the drink to the country, so you can see a samovar-coffee pot in the museums of the Arkhangelsk region. Pomors actively interacted with foreign countries, primarily with the inhabitants of Scandinavia and Norwegian merchants. This feature of the Pomeranian territories contributed so much to the emergence of an international culture that a mixed Russian-Norwegian language Russenorsk arose, in which trade was conducted. This example demonstrates that the Arctic, which is more open than central Russia, has long been a zone of international cooperation. With the exception of Moscow, which, with the status of the capital of the country, is the center of contacts with foreigners.

The 30s of the twentieth century - the beginning of the active development of the Arctic by heroic Soviet polar explorers and pilots. In 1928, the airship of the explorer Umberto Nobile crashed, with the help of the Krasin icebreaker, Soviet polar explorers saved most of the expedition. From that moment on, the world realized that the young state could do a lot, and the country's leadership appreciated the possibilities of the Arctic.



Figure 1. Arctic Mediterranean

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In the museum of Dudinka there is a painting "The Battle for Dixon", reflecting the events of the Second World War. The settlement and port of Dikson is located on the shores of the Arctic Ocean on the Taimyr Peninsula, as well as on the line that divides the country in the middle. The German ship "Admiral Scheer" attacked the Arctic meteorological center and the Dixon geophysical observatory, which provided navigation along the Northern Sea Route, trying to capture headquarters maps. It should be noted that in the Arctic region, militarization and tension are higher, but the level of contacts, exchanges, etc. is also higher.

Not only the Russian Arctic, but also the international one is for many countries a "gateway" to the foreign world. The shortest distance between two points on the Earth's surface is closer to the poles, so the airport in Anchorage (Alaska, USA) is the fifth in the world in terms of cargo turnover with the countries of Central Asia. Another famous Arctic hub is the city of Reykjavik, where planes flying from Europe to North America land. The route from Japan to Europe passes over Yamal and other northern territories of Russia (Figure 1).

The modern Arctic is a zone of active cooperation between northern countries (in comparison with countries located at southern latitudes), in general, the region is a territory of closer interactions between states than inland territories, which led to the emergence of the concept of the "Arctic Mediterranean". The azimuth projection of the Arctic Mediterranean is located in the center of the emblem of the United Nations and shows well the convergence of countries through the North Pole.

Current trends:

- after a decrease in interest in the region at the end of the 90s of the last century, since the 2000s, there has been an increase in international attention to the Arctic in all countries, and the activities of international organizations are intensifying. Since 2005, the Nordic countries have been consistently adopting Arctic strategies, even Germany has created its own strategy;

- the emergence of new countries in the international Arctic: China, Southeast Asia as a whole.

In 2019, the Ministry of Natural Resources and Ecology of the Russian Federation completed the geological and geophysical studies carried out to substantiate the application for the extension of the boundaries of the Arctic continental shelf to the UN Commission on the Limits of the Continental Shelf.

➤ Initially, the Arctic was divided according to the sectoral principle: a meridian was drawn from the western point of the territory of each country to the North Pole, the sector limited by the meridians was considered to belong to the corresponding country.

➤ The UN Convention on the Law of the Sea was adopted in 1982 and ratified by Russia in 1997.

According to the Convention, the territorial jurisdiction of the state extends only to the shelf, while the off-shelf zone is declared international (International Seabed Area), coastal waters at a distance of no more than 12 miles from the baselines can be declared territorial sea, and the exclusive economic zone is a 200-mile zone from baselines. Geographically, the continental shelf is an underwater extension of the mainland that extends beyond the 200-mile zone.

➤ In 2001, Russia was the first of the countries participating in the Convention to impose restrictions by submitting an application to the UN Commission on the Limits of the Continental Shelf (at the same time, a significant part of the Arctic waters was voluntarily ceded to international use).

➤ Canada in 2013 and Denmark in 2014 submitted bids that involve significant overlap in neighboring territories. In the Danish application, Greenland has a shelf extending to the North Pole and beyond.

➤ in 2015, Russia filed a revised application to expand the Arctic shelf, which stated that the boundaries should be set taking into account the "continental nature" of the areas in the Arctic Ocean. To substantiate the application before the UN Commission, it is necessary to confirm with the help of geological and geophysical studies that the sites are the continental shelf.

The options proposed by the UN Convention on the Law of the Sea for determining the boundaries of the continental shelf are: method 1 - consideration of the thickness of sedimentary rocks to determine the place where it reaches 0.001 of the distance to the foot of the continental slope; method 2 - determining the distance of 60 nautical miles from the foot of the continental slope.

Expeditions carried out explorations and discovered a number of islands, science related to oceanology and geophysics soared after the collapse of the 1990s, but Russia had to pay more than 100 billion rubles for the mistake of the 2001 application.

➤ In 2019, the result of the meeting of the 50th session of the Commission on the Limits of the Continental Shelf was the confirmation that the Lomonosov Ridge, the Mendeleev Rise and the Podvodnikov Basin separating them are underwater heights and natural components of the Russian continental margin. Victory has been achieved, but Russia's application continues to be considered, as unconfirmed sections of the continental shelf remain.

Alternative point of view. Article 76 of the UN Convention on the Law of the Sea contains rules for determining the boundaries of the continental shelf, regardless of its location. Head of the Department of International Law of MGIMO A.N. Vylegzhanin draws attention to the fact that it was possible to apply Article 83 of the Convention, which implies the

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possibility of delimiting the continental shelf between states with opposite or adjacent coasts by agreement on the basis of international law.

The polar archipelago of Svalbard or Grumant (ancient Russian) has been settled by the Pomors since the 12th century. Traditionally, Svalbard was a territory of general use, in 1872 an international treaty between Russia and Norway-Sweden was concluded, which confirmed the special historical rights of Russia to the archipelago. However, in 1920, under an agreement between the United States, Great Britain, India, Denmark, France, Italy, Japan and Norway, Svalbard was transferred under the sovereignty of Norway, with the reservation of the equal right of other states to exploit its natural resources and territorial waters. The treaty entered into force in 1924, 39 states participate in it, including Russia since 1935.

Article 2 of the treaty reads: "Ships and citizens of all the High Contracting Parties shall be admitted, on equal grounds, to the exercise of the right to fish and hunt in the areas indicated in Article 1 and in their territorial waters." Norway mines coal on Svalbard, which is not economically justified, but the implementation of economic activities for the extraction of minerals in the archipelago in accordance with the agreement gives countries the right to be on its territory.

In 1977, Norway established a 200-mile "fish protection zone" around the archipelago, which, by its status, was an exclusive economic zone. Russia (as well as the USSR earlier) objected to such a definition and consistently recognized the water area as the open sea, drawing its western border of the continental shelf through it, connecting the extreme point of the country's land border with the north pole in a straight line, deviating slightly to the east in the Svalbard region. From the point of view of Norway, the Russian-Norwegian border should have an equal distance from Svalbard and the Russian Franz Josef Land. The discrepancy between points of view on the border line formed in the Arctic Ocean a section of the continental shelf of 175 thousand km<sup>2</sup> (12% of the Barents Sea), which remained controversial for several decades.

US President D. Trump offered to buy an administrative autonomous unit of Greenland from Denmark, which caused active discussion in Europe. The Prime Minister of Denmark M. Fredriksen answered D. Trump: "Greenland is not for sale!", and the inhabitants of Greenland said that their land would not only be American, but also Danish. The Arctic is characterized by natural and economic mobility, and the US President's proposal also demonstrated the political mobility of international Arctic cooperation. Russian experts say that the purchase of Greenland is possible, European experts, especially politicians, reject such a possibility.

In May 1905, the Tsushima naval battle took

place, which became the last decisive battle of the Russo-Japanese War. The 2nd squadron of the Pacific Fleet under the leadership of Admiral Z.P. Rozhdestvensky advanced to the eastern theater of operations to assist the troops fighting in Port Arthur, but was defeated in the Tsushima Strait before reaching their destination.

Historically, the Northern Sea Route began with the Kara expeditions (20s of the 20th century), and "got on its feet" when the export of timber through the city of Igarka was launched. It should be noted that the western radius of the Northern Sea Route was mainly working, which justified the existence of an economic base.

In the 30s of the twentieth century, a permanent connection was established along the Northern Sea Route, providing a connection between the western and eastern parts of Russia. The continuous (from west to east) Northern Sea Route, like the Baikal-Amur Mainline (BAM), was of strategic importance. Comrade I.D. Papanina at the 18th Congress of the All-Union Communist Party of Bolsheviks in 1939 said: "Dumb-headed tsarist officials did not see the vital need to master the Northern Sea Route. They caused all sorts of difficulties for single researchers who sought at their own peril and risk, in spite of ice and fog, to lay the Northern Sea Route. During the Russo-Japanese imperialist war, tsarist Russia paid dearly for its backwardness and conservatism, for the lack of well-equipped bases and military routes to the North. After the Battle of Tsushima, the famous Russian scientist Mendeleev wrote:

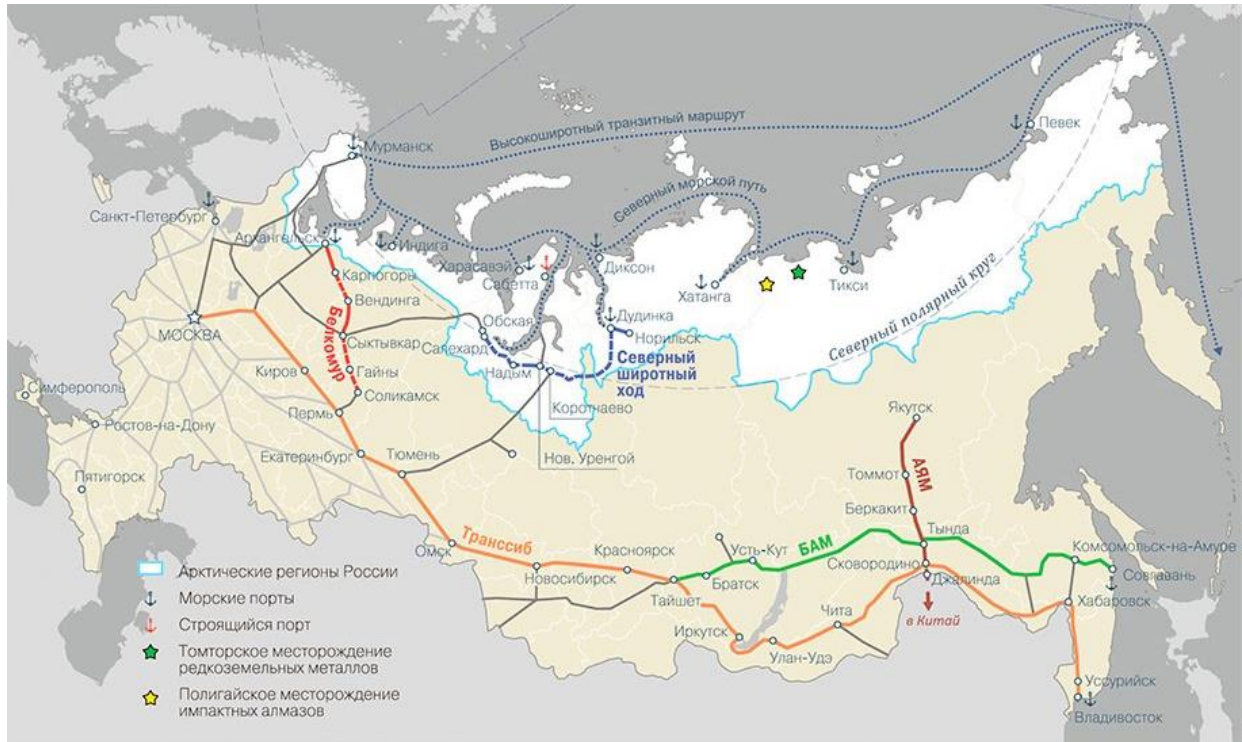
The sad page of the Northern Sea Route is the history of the German raider "Komet" being carried along it by Russian ships before the Second World War. During the war, "Komet" carried out combat missions in the Pacific Ocean. In the 1930s, there were many people accused of espionage in the camps in the USSR, which causes an ambiguous assessment of the collection of intelligence data by the German raider. A similar situation arose with the raid of the Graf Zeppelin airship over the Arctic waters of the USSR, in which Soviet scientists, including Arctic explorer R.L. Samoylovich (subsequently shot). The airship flew up to the middle of the Northern Sea Route, taking aerial photographs and collecting data that were mysteriously lost. "Graf Zeppelin", having not made the earlier planned landing in Leningrad, flew to Germany, where the results of observations "surfaced". The years of Soviet-German friendship cost Russia very "expensively", it is enough to recall such events of the Second World War as the raid of the cruiser "Admiral Scheer" in the Dixon area, which took place thanks to the collected navigation data, or German submarines that sank in the western sector of the Northern Sea Route convoy transports.

The considered examples show that the Arctic is an open and not fully explored region.

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The strategic importance of the Northern Sea Route for Russia remains significant and the most important for ensuring transportation (Figures 2 - 7).



**Figure 2 - Arctic Sea Routes: Northern Sea Route (blue line), Northwest Passage (red line), Central Passage Project (green line)**



**Figure 3 - Scheme of railway tracks in Russia**

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Figure 4 - Map of the scheme of river transport in Russia

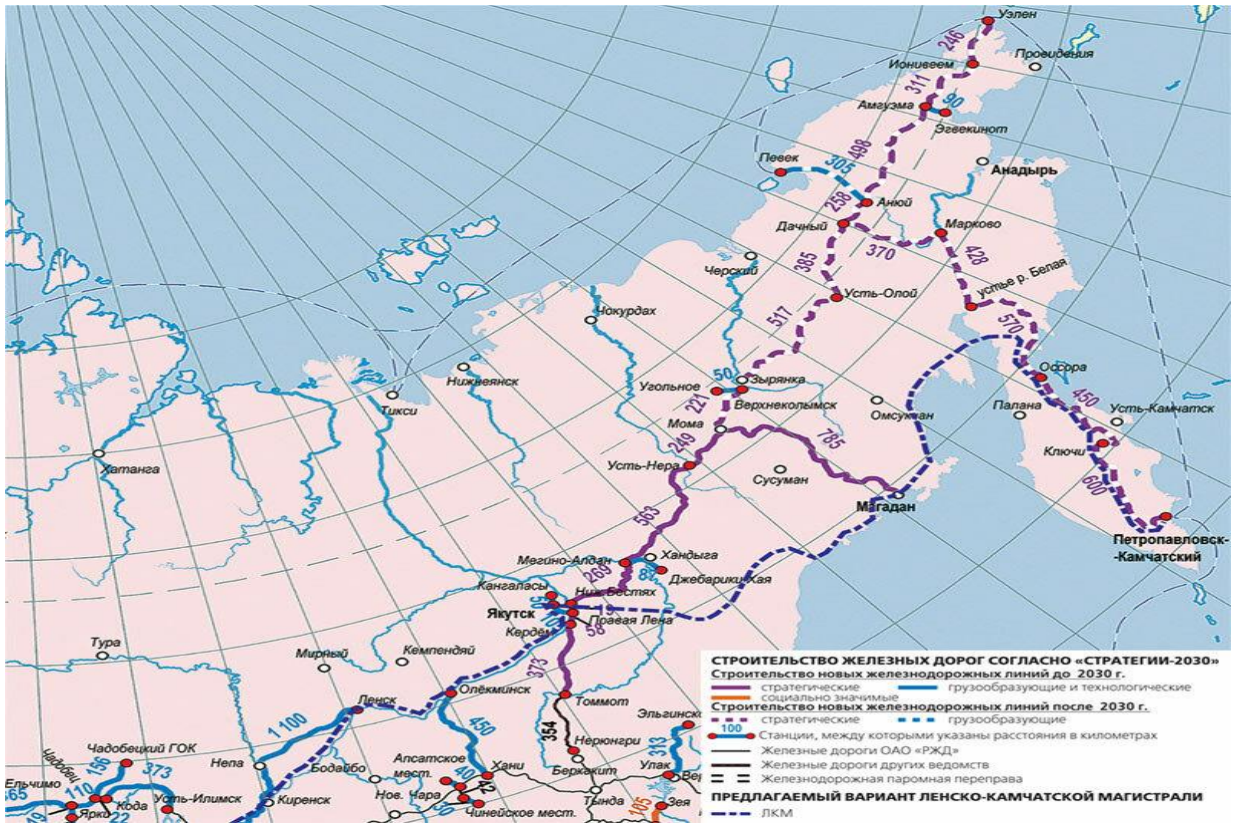
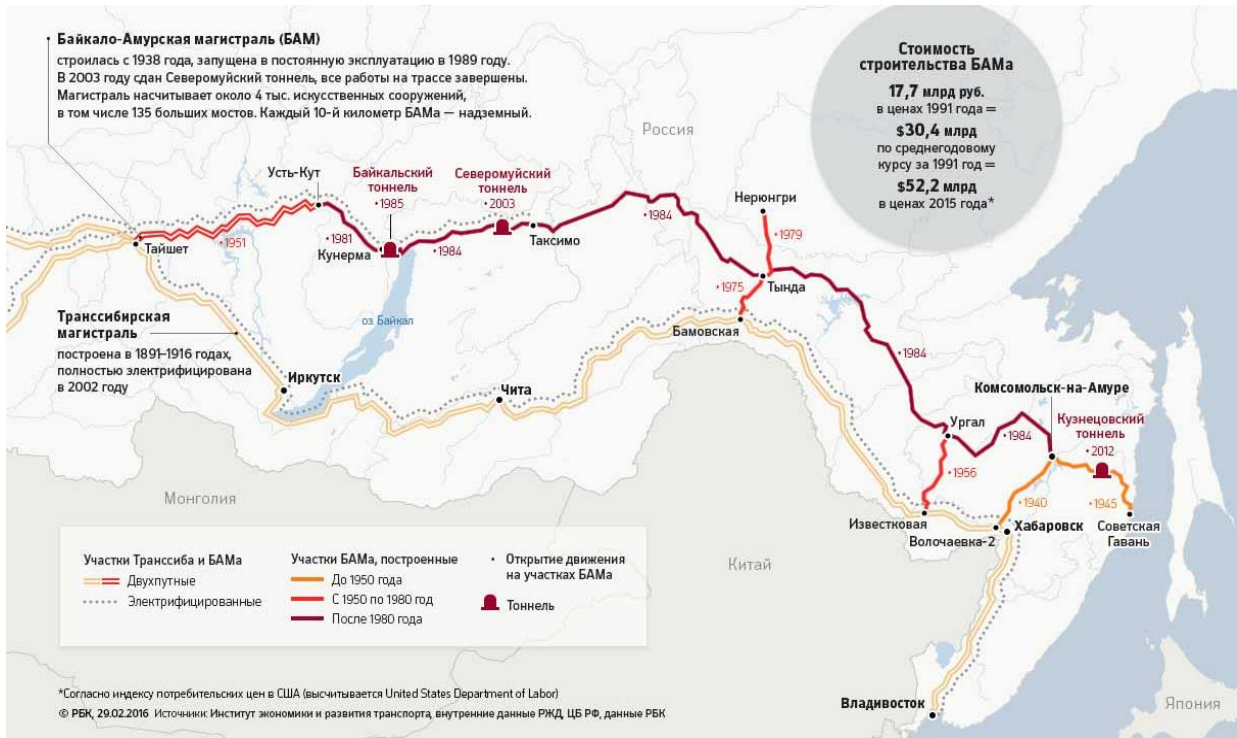


Figure 5 - Map - a scheme for the construction of new railways in the regions of the Russian Arctic

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**Figure 6 - Scheme of the construction of the Baikal - Amur Mainline (BAM)**



**Figure 7 - Adjustment in the BAM construction scheme**

Currently, discussions are underway regarding the status of the Northern Sea Route - should it be international or is it an internal highway, which the Russian side insists on. A similar dispute is going on between the US and Canada over the Northwest Passage, which lies in Canadian Arctic waters. This is a less popular and more difficult sea route in terms of navigation conditions, passing near sparsely populated areas, therefore, we do not have a special need to develop it - there is such an erroneous opinion.

However, it is assumed that with climate warming in the future it will be more relevant. Canada insists that the Northwest Passage is exclusively an internal highway, the US considers it an international one. According to forecasts, by the middle of the 21st century, the ice situation will become much softer, therefore ships will be able to navigate in the area of the North Pole, moving in the middle of the Arctic Ocean. Land and air analogues of the Northern Sea Route Trans-Alaska Highway in North America

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The construction of overland routes was associated with military necessity: the main transport routes of the north of North America, connecting Alaska through Canada with the main territory of the United States, were built during World War II. As historians write, before the time when the Japanese bombed Pearl Harbor, Alaska had one highway from Valdez to Fairbanks, about 2,000 miles long. From the

point of view of the United States, Alaska was an island; if Japan cut off the shipping traffic, it would be completely cut off. This would be a disaster for her, because the region did not provide itself with food, despite the presence of the city of Palmer (northern "Kuban"), which acts as a granary.



Figure 8 - Characteristics of the transport scheme of the basic regions of the Russian Arctic

In the 40s of the twentieth century, after long negotiations with Canada, which first initiated construction, but then abandoned it, fearing an aggravation of the conflict with Japan, the construction of a vital highway for Alaska begins. A panel on the façade of the Yukon Transportation Museum in Canada demonstrates how important the construction of the Trans-Alaska Highway by the US military played in the development of transport in Alaska. Subsequently, it completely turned the life of part of the US territories, in particular, the city of Whitehorse, having found a road, became the capital of the Yukon Territory, Alaska as a whole received a stable connection with the main territory of the United States, that is, this is the Northwestern intermediate route. Canada officially positions the creation of the air Northwest route as its own invention, as does the United States. airfield system, located along the Trans-Alaska Highway, was built during World War II. Starting in 1942, it was used to transfer aircraft and cargo provided by the US to the Soviet Union under Lend-Lease. The air "bridge" extended to the Soviet Union, it was called ALSIB - the Alaska-Siberia air

road. Cargo from Great Britain during the war was delivered to Russia by sea - northern convoys to the cities of Murmansk and Arkhangelsk. In Fairbanks, a monument to Soviet and American pilots was erected, and the route of the air "bridge" is also reflected on it. Soviet pilots flew to Fairbanks to receive Douglas warplanes. The transfer point was moved inland from the coast due to possible attacks by Japanese aircraft. Soviet pilots piloted aircraft first through the United States (to the village of Nom), then through the Bering Strait to Chukotka. The Arctic is an amazing place where the close interaction of the northern countries, including the Soviet Union and America, is manifested.

The Arctic is an area of close rapprochement between the opposing sides during the Cold War - the Soviet Union and Western countries, therefore, the front lines of defense passed on its territory. In North America, the famous Dew Line (Distant Early Warning Line, DEW Line) was created - a chain of air defense radar stations that runs throughout northern Canada. An example of how militaristic themes have "sprouted" in Alaska is a farm site (claim), where the



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equipment of a radar station helps to attract tourists who are invited to pan for some gold (such economic activity is prohibited in Russia).

Another, no less militarized region of the world is Northern Norway. On the bas-relief in the building of the University of Tromsø, made in the style of Soviet newspapers, it is reflected how Uncle Sam throws cruise missiles into the territory of Norway, while pumping oil out of it. The northern part of Norway is the location of NATO military units, when there is a "thaw" in relations between Russia and the North Atlantic Treaty Organization, this adversely affects its economy. The dialectic of the Arctic also lies in the fact that the military presence contributes to the provision of jobs for the inhabitants of the region. In Russian cities specializing in military subjects, in the 90s of the last century, the problem of employment of the population, which both Alaska and northern Norway face, became acute. In the Norwegian city of Tromsø, aviation units have been preserved, but the NATO submarine base, organized in a tunnel in the rock, was closed, and subsequently sold to a private person. The Norwegian businessman, in turn, sold the base to Russia, now scientific ships are located on its territory. An example of a military facility handed over to scientists for research is the bomb shelter tunnel near Fairbanks, the largest permafrost research center in the Western Hemisphere.

In the USSR, an air defense line was also created along almost the entire coast, and several large air bases were built, including in the Murmansk region and the Yamalo-Nenets Autonomous Okrug (Amderma settlement). The village of Amderma, one of the few villages with capital houses and an airport, was completely focused on servicing long-range aviation. It is currently in a deplorable state as a result of declining population, despite the construction of several wind farms. A large contingent of Soviet troops and the airport were based on the ice field near the Pole in order to be at the closest distance to a potential enemy. Novaya Zemlya became a nuclear test site, which led to the resettlement of local residents.

The Alaska Transportation Museum has an exhibit that says, "Whoever rules Alaska in the future will rule the world." The development of transport in this region is directly related to the development of infrastructure, primarily for gold mining ("gold rushes" at the turn of the 19th and 20th centuries), and secondly, for the armed forces. The population of the city of Fairbanks is 30 thousand people, the population of the surrounding area of Borough is 100 thousand, while there are no large settlements in the area, mainly farm settlement. This feature is explained by the inclusion of the contingent of the armed forces in the population of the region.

Militarization has an impact on the life of the indigenous peoples of the North:

- During the Second World War, special units

of the Eskimos (Inuit) were created, which remained in the places of traditional residence, performing the functions of tracking a potential enemy.

➤ "Black page in the history of Canada" - the official name of the resettlement of the Inuit from the mainland of the countries to the northern islands at a distance of 2.5 thousand km, carried out solely in strategic interests (territory retention). As a result, some of the settlers died of starvation, since the representatives of this people are adapted to a certain natural environment and have developed the skills of hunting caribou, which do not live on the islands. In order to help them adapt to the high Arctic, Inuit from another village were placed with the settlers. The Canadian government recently issued an apology to the surviving Inuit people.

➤ The monument to the Deer Battalions is located in the city of Naryan-Mar. During the Second World War, residents of the Nenets District were recruited to deliver food and ammunition to the army units fighting in the Murmansk region, since reindeer are well adapted for moving along the Arctic impassability. The reindeer herders made their way to the combat area on their own. In Alaska and Chukotka, related families live on opposite sides of the Bering Strait. Skillfully managing canoes, they communicated, but in the course of the formation of new states, the peoples were divided. During the Cold War, part of the small indigenous people of the Chukchi were resettled from Novaya Zemlya and the Chukchi coast to the hinterland, because they occupied territories that were too close to a potential enemy. There has been some degradation because the coastal inhabitants are sea hunters and do not know how to herd deer. The depopulation of the coast of Chukotka is a tragic page in the history of Russia. The most non-Arctic cities in the Russian Arctic: Arkhangelsk, Severodvinsk, Novodvinsk. The cities of Arkhangelsk, Severodvinsk, Novodvinsk are located in the Arkhangelsk region, which differs from most of the Arctic in that it is covered with forests. The pulp and paper industry is located in the city of Novodvinsk, and the defense industry is located in the city of Severodvinsk. The development of the White Sea coast began in the 16th century. Enterprises specializing in the construction of ships and submarines were built on the historically earliest developed territory, where one of the first monasteries is located. Thus, one of the temples ended up on the territory of a closed enterprise. There are two companies in the city: The Zvyozdochka ship repair center, which repairs submarines, and the Northern Machine-Building Enterprise, which specializes in the production of submarines, as well as their repair by order of India. The aircraft carrier "Admiral Gorshkov" was sold to India, the Severodvinsk enterprise is also engaged in its repair. The Institute of Shipbuilding and Arctic Marine Engineering has become a branch of the Northern (Arctic) Federal

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University. M.V. Lomonosov. Currently, the city is open, new housing is being built, the flow of commuting migrants has changed. When the defense industry found itself in a very difficult situation in the 90s of the last century, the inhabitants of Severodvinsk left to work in the city of Arkhangelsk, and now the oncoming flow has intensified. We emphasize that almost all Arctic cities are dependent on any external factors, for example, oil prices or the political environment. The development of cities of defense specialization is largely associated with state policy in the field of defense support.

In terms of militarization, the Murmansk region is comparable to Alaska, on its territory there are closed administrative-territorial formations (ZATO): Vidyaevo, Zaozersk, Ostrovnoy Severomorsk, Aleksandrovsk. Initially, the historical center of the Kola Peninsula was the city of Kola, then Aleksandrovsk, then - the overgrown Murmansk - the "child" of the First World War, conceived as a transport center as part of the railway line (1915), which provided access to the sea, bypassing potentially blocked ports in the Baltic. The further fate of Murmansk is closely connected with the function of both economic and defensive "gates". The population of the city is 300 thousand people. ZATO Aleksandrovsk includes a number of administrative entities: the city of Polyarny (City of Military Glory) - the population is 42.7 thousand people, the city of Snezhnogorsk - 12.6 thousand, Gadzhiyevo - 11 thousand, Polyarny - 1.7 thousand, n.p. Deer Guba - 1.6 thousand, s. Belokamenka - 84 people, the settlements of Kuvshinskaya Salma, Retinskoye, Saida Guba (a place for storing spent parts of nuclear submarines) - there is no permanently resident population. Thus, in the area of Murmansk, including the city of Severomorsk, there are centers for basing, repair and maintenance of the Northern Sea Fleet.

The nuclear submarine "Kursk" crashed in the Barents Sea, 175 km from the city of Severomorsk. The cabin of the cruiser was installed in Murmansk on the site of a symbolic mass grave - the burial of a capsule with sea water from the crash site. The village of Korzunovo is known for the fact that Yuri Gagarin served there, who was a military pilot before flying into space. Some of the closed cities are currently open, for example, the city of Roslyakovo, since it is assumed that civil facilities related to the export of liquefied natural gas will be located on its territory. The northern part of Murmansk was famous for its large dock for repairing aircraft carriers; as a result of the crises of the 90s and subsequent years, backup power sources were disconnected at the dock, which led to its flooding during an accident in the power system. In the city.

The atmosphere of Murmansk is imbued with a naval spirit: the most famous monument in the city is the monument to "Defenders of the Soviet Arctic during the Great Patriotic War" ("Alyosha").

"Waiting" - a monument to a woman waiting for a sailor and looking at the mouth of the bay, from where the ship should return. Murmansk is the base of the icebreaker fleet, from where caravan routes along the Northern Sea Route begin. The most famous domestic icebreaker "Lenin" has become a museum. Many stories are connected with its construction in the 50s of the twentieth century, since it took place in a competitive mode with the Americans. Foreign specialists came to the construction site with an inspection, as a result of which it was concluded that the Russians would need several years to complete the work. A few months later, as a result of a heroic breakthrough, sea trials of the icebreaker were carried out. American experts announced that instead of a nuclear engine, a diesel engine was used for testing, but they were given the opportunity to verify the opposite. Despite the risks, the Soviet Union was the first in the world to build a nuclear-powered icebreaker - the pride of the country. Options for the functioning of the Northern Sea Route, namely:

1. The transition from the western regions of Russia to the east: the northern analogue of the Trans-Siberian Railway ("Anti-Tsushima").

2. "Windows" to Europe: it was for this task that the Northern Sea Route was laid in the 20s of the twentieth century, this option is the most economically profitable and actively used.

3. "Bridge" Europe - Asia-Pacific region: accompanied by difficulties during the passage along the Northern Sea Route, even with the use of modern icebreakers and ice reconnaissance methods. An obstacle is also the poor development of infrastructure in the eastern part of the route: the impossibility of repairing the vessel, the lack of the necessary support along the route.

4. Northern delivery.

It is still too early to talk about container transportation along the Northern Sea Route, because they require a strictly defined delivery time.

Lesson #2: New highways in the Arctic often open up due to extraordinary circumstances and extreme conditions.

Under normal circumstances, the heavy investment and risk that is always present in the construction of new roads is rarely undertaken by countries. The reason for the intensification of efforts may be a sharp drop / rise in oil prices or military actions. The supreme ruler of Russia, who founded his state in Siberia - Admiral A.V. Kolchak was desperately looking for a way to establish trade relations with the Entente countries for the supply of weapons and food. The Northern Sea Route would have saved the situation, so the admiral, with experience in ice navigation, showed great interest in him. The first expedition to establish regular relations of the Committee of the Northern Sea Route was organized in the same historical period. After the defeat of the army of A.V. Kolchak, the committee

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was saved and continued its activities.

The foundation of the city of Igarka was not only an economic, but also an ideological project. CM. Kirov at the XVII Congress of the All-Union Communist Party of Bolsheviks in 1934 stated: "What yesterday seemed completely unawakening, where in tsarist times people were exiled only in exile, is now there by the will of the Bolsheviks, on the basis of natural resources (apatite, iron, molybdenum, mica, thorium, titanium, etc.), in the semi-tundra, where the human foot has not yet set foot, a new, rapidly growing industrial center of the Arctic Circle has been created. Igarka was an example of a northern city flooded with lights, which was used to demonstrate the triumph of Soviet power. Note that young I.V. Stalin, under the tsarist regime, was serving a link in the Turukhansk region a little south of the city of Igarka.

- 1935 - the Territorial (Krasnoyarsk) department of the GUSMP and the Igark air base (routes to Taimyr) were formed;

- 1932 - the branch of the All-Union Institute of Plant Growing began its work;

- 1935 - in terms of the percentage of literate population, the city takes first place in the region, there are 9 schools, 3 circles of foreign languages, the arrival of O.Yu. Schmidt, tours of the Bolshoi and Maly theaters, a newspaper is published in several languages;

- 1938 - the population of the city is 18 thousand people, a bus line and a city taxi are launched.

Foreign ships call at the port of Igarka, the American journalist Ruth Gruber recalls that she saw French perfumes in the shops of the city. The book "We are from Igarka", compiled from the stories of schoolchildren, was presented at the World Exhibition in New York, but the editors excluded the information that some of the authors were from among the special settlers. At the same time, the complex development of the city took place, including scientific research on specific lens permafrost, which significantly hampered construction. Having broken through the layer of ice under which the stone is located, it is possible to rest piles on it, but the permafrost in this area is layered (the layer of ice is a layer of clay). A scientific station for its study (one of two in the world) was built in the city of Igarka in the 30s, plans were made to organize a powerful underground complex, which even included a skating rink. The second underground station is located in Fairbanks (Canada), but the Russian station is deeper, as it is located in a mine. Employees of the Igarka Permafrost Museum say that they manually cover the corridors of the station with a layer of snow and ice in order to maintain the required temperature, which makes it very beautiful in the underground tunnels.

I.I. was invited as the chief architect of the city. Leonidov is a representative of the Russian avant-

garde in architecture. Only one of his participation in the construction could make Igarka a world-class tourist attraction. The avant-garde wooden buildings, including the trading port for foreigners, unfortunately burned down.

From the point of view of food, the city was self-sustaining, in many respects this was a consequence of necessity. The first polar pilots made flights to Igarka, but under adverse weather conditions, the flight could last several weeks. Scurvy is an eternal companion of the early years of Arctic exploration, so a division of the Research Institute of Polar Agriculture is opened in the city, where experiments are carried out and new varieties of crops, such as potatoes and strawberries, are created. Initially, there was no camp in Igarka, kulaks were exiled there. R.V. Gorchakov writes that in the 30s the hands of the NKVD "did not reach" the city, so the kulaks lived relatively freely and were engaged in the cultivation of crops in the Agroarctic subdivision. To make inspections more difficult, vegetable gardens were organized on the island. In 1938, the crop was harvested: 134 tons of potatoes, 67 tons of cabbage, onions and radishes, 2 tons of tomatoes, 7.5 tons of cucumbers. A book published in 1979 says: "The population of Igarka almost completely provided itself with vegetables and potatoes throughout the Great Patriotic War! Igarka residents did not abandon this occupation even in the no less difficult post-war years. to import from the central and southern regions of the region, the sectors of the economy at the Igarsky state farm have changed. The main industries have become meat and dairy and poultry. This greatly affected the food security of the city, at present the farm exists, but is in a deplorable state. The very provision of northern territories with food is a global trend, it is more expensive, but vegetables grown in their own greenhouses are fresher than those delivered. Learn more about life in You can meet Igarka at the age of 30 by reading the books of V.P. Astafiev, who grew up in an orphanage.

Lesson #3: Remoteness isn't always bad. On the one hand, it does not allow you to quickly and cheaply deliver what you need from the mainland, on the other hand, negative trends (for example, drugs) do not reach remote areas.

The main aspects of the study of remoteness

- economic costs of remoteness, structure of the economy: limited sales market, high prices, lack of innovative developments, costs of doing business. "Remote regions suffer from a lack of both political self-government and economic self-sufficiency" (American economist L. Husky).

- migratory outflow;
- food self-sufficiency (AHDR);
- the predominance of long-distance ties over short-range ties (economic geographer A.I. Pilyasov);
- institutional costs: important decisions are made in large cities located far away, which makes it

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difficult to take into account local specifics. Alaska Governor W. Hickle, in his book *Lessons from Alaska - Opportunities for Russia*, talks about the adoption of a US federal law issued to combat carbon dioxide emissions with the help of a gasoline additive.

For part of the country's territories, this law was useful, but in a cold climate in Alaska, the atmosphere is reversely stratified, so the exhaust is pressed to the ground, which statistically significantly led to an increase in the incidence.

- increased creativity: "Remote places are full of innovators. This is due to the fact that progress is always on the way to these places and the do-it-yourself principle becomes the only opportunity to make a leap forward" (British anthropologists E. Ardener and K. Humphrey).

- increased opportunities for self-development: "Remoteness from other countries and the high cost of transportation served industry as a natural defense" (Norwegian economist E. Reinert). Paradoxically, the level of diversity of Arctic cities in Russia (Norilsk, Magadan, Vorkuta, Igarka) higher than the level of oil towns built in the "fat" 70s (Novy Urengoy, Noyabrsk).

Post-war technological breakthrough and the death of the city.

With the improvement of the transport situation in the 70s, production indicators in Igarka increased: timber export in 1943-1946 was 0 m<sup>3</sup>, in 1965 - 889 m<sup>3</sup>, in 1978 - 1.3 thousand m<sup>3</sup>. The strong growth of exports in the 1970s was associated with a change in timber loading technology: instead of self-rafting, ocean-going vessels were loaded with packages (timber stacks) that were delivered from timber processing plants located upstream of the Yenisei. Thus, the unique economic and geographical position of the city has exhausted itself to some extent. This was facilitated by the invention of river-sea vessels, on which it is more profitable to export timber. At the same time, the city is changing: the construction of multi-storey (5-9 floors) houses of standard models is being massively carried out. The peak of the commissioning of housing falls on the 70s - 80s, while the apartments in the "Khrushchev" are very cramped.

Compact cities have their advantages, but in case of population fluctuations they shrink, it is possible to make a number of generalizations that arise in the process of solving applied problems in the Arctic region:

- Is it necessary to live in the Arctic or is it just a place to extract resources?

During the implementation of specific projects, a number of questions invariably arise: should permanent settlements be created for resource projects, and if so, which ones? if a temporary stay of workers is supposed, then what will it be - on a rotational basis or for a certain period of life? Despite the fact that in Soviet times the population was declared to be fixed in the Arctic territories, a

significant part of people came to the North at a young age and lived there until the age of early retirement (due to certain benefits) or until the moment when the children finished school and it was time to enter higher education.

In the 60s of the last century, when the "road to resources" project was being developed, Canadians studied the experience of the Soviet Union in the field of creating permanent cities. In the 1990s, the Soviet Union turned to the experience of Canada, where the northern territories were not sufficiently developed, which was considered more effective. Currently, there is a decrease in the population in some northern regions of Russia: in the eastern part of the Nenets Autonomous District, the work of resource projects is carried out mainly on a rotational basis, as is the development of the Yamal Peninsula. At the same time, there are reports that the construction of new cities is planned, for example, in connection with the development of promising coal deposits near the village of Dikson.

- Ethical issues of life in the North. In the Soviet Union, northern benefits were originally created as a compensation for the difficulties associated with moving, as well as a way to secure the population, reducing the costs associated with rotational development. With the previous method, people came to the North, but after a while they left, and the new arrivals had to organize life anew. Such a change in the population was associated with both increased morbidity and loss of working time. Similar problems are typical for the regions of the foreign Arctic, for example, a similar lifestyle is led by specialists in northern Canada who come for a certain period. Gradually, the benefits began to be perceived by northerners as compensation for the fact that they sacrifice themselves for the well-being of the country.

- For whom should infrastructure be created - for the population or for the extraction of resources?

The Nenets Autonomous Okrug can be presented as a miniature model of the Arctic; its example illustrates well the contradiction of the issue of infrastructural development of the northern territories. On the one hand, most of the settlements in the district are located west of the river. Caves and the capital of the district - the city of Naryan-Mar. These are villages built in the 18th century and located along the highway that went to the city of Pustozersk and further to the east. There are practically no permanent roads in the region, winter roads cover mainly the eastern part of the district, as well as helipads. The accessibility of small settlements in the west of the region is provided either by air or by traditional sledge. Thus, the roads lead to resources, and not to the more populated areas of the Nenets Okrug, that is, the development of the territory is connected with the development of deposits.

- Center cities or base cities? Traditionally, cities are located in a close network, their existence is

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associated with an active interchange of services. Residents of small towns receive unique services in large cities, which are easy to reach in densely populated regions with a well-developed transport network. By serving small towns, large ones get an increase in the market for their goods and services, which leads to the development of a wider range of industries. The described interchange is the basis of urban life, but in the Arctic cities are largely isolated and lack the possibility of network interchange. At the same time, they perform a rather specific role of a transshipment base associated with seasonal development, with the need for additional storage of goods, which should be sent further along the Northern Sea Route to remote settlements. On the one hand, cities are excluded from the classical local network, which is the basis for development, on the other hand, they are included in powerful inter-regional flows and have additional functions associated with transshipment and storage in the off-season, with equipment settling down for the period when it cannot be operated.

- How to deal with population instability? The main problem of the North has always been considered climate, but trying to cope with the population of the Arctic regions is an almost insoluble dilemma. Architects and city planners have traditionally tried to solve the problem of climate, while the problem of frequent population change has not been clearly solved at the city level. The answer to the question "is a transforming city possible?" still no. Notorious are barrel houses, whose rounded shapes were designed to save energy. Temporary housing is associated with psychological costs - the residents of the North experienced the "delayed life" syndrome. Thus, the deliberate orientation to temporality has negative socio-cultural consequences.

- Sectoral or complex development? Development of resources or development of space?

In the 30s of the 20th century, emphasis was placed on the integrated development of territories, a new round of development in the 60s and 70s assumed an orientation towards sectoral development. Despite the fact that formally it was said about territorial production complexes, in reality the social sphere was reduced. The lack of housing and social and cultural facilities is a classic of the history of the development of the Arctic in the late Soviet era. The sparsely populated northern territories of Alaska and Canada suffer from similar problems. Question: "Is it worth creating infrastructure in the North with a full range of social categories for all ages (from children to older people)?" - has not been fully resolved. If you ask it to the residents of the Arctic themselves, then the answers will be very different, because some people of retirement age for various reasons (medical and social) do not want to leave the North, some are seeking relocation. There is currently no unambiguous solution to this issue.

- maximum adaptation of the socio-cultural and economic environment to the specific Arctic conditions: reducing the cost of their creation through the socio-psychological adaptation of people, the development of technology and technology, including nature-like ones, as well as special forms of economic activity and institutions. It is necessary to adapt the socio-economic system to the Arctic specifics (seasonality, poor transport accessibility), while ensuring autonomy, the ability to live from import to import, to form reserves, organize medical care in remote areas, and ensure the availability of universal specialists capable of providing a wide range of services. We emphasize that we are not talking about organizing a familiar environment, it is assumed that the population will live in extreme conditions.

- victory over the Arctic nature: to win, it is necessary to fulfill the dreams of people who explored the North in Soviet times, when the lines from the song "Guys of the 70th latitude" sounded: "Let blizzards rage nearby, if necessary - melt the ice!", that is, build on In the north of the city, perhaps a denser network of roads, adapt standard houses to permafrost conditions, transfer the indigenous peoples of the North to settled life and repeat the way of life that operates in the rest of the country. This path involves the destruction of the usual way of life, the mentality of people and a number of economic mechanisms.

Currently, an intermediate option is most often used, since a neutral environment has not been created in the Arctic in this way. Back in the 80s, scientific reports noted that the inhabitants of Norilsk do not feel cut off from the main territory of the country, but recent studies conducted among the population show that even now Norilsk residents do not have the opportunity to travel outside the Norilsk industrial region. On the other hand, modern residents of the Arctic have different behavioral strategies than Russians living in the main settlement zone of the country. A typical example is the existence in the North of the concept of "euro driver", which refers to a person who cannot repair a car that has stalled during a snowstorm on the highway. A large company is able to ensure the good condition of the road, which the assistance vehicle will quickly reach to assist the driver, so it can use a different strategy by hiring narrow specialists. Euro driver - a private carrier may not survive in extreme Arctic conditions in a car breakdown situation, so northern car owners have a wide range of skills not only for driving and repairing, but also for survival.

The specificity of the Arctic region, of course, is recognized, at the state level it is noted in the following documents:

- "Fundamentals of the state policy of the Russian Federation in the Arctic for the period up to 2035 and beyond".

- "Strategy for the development of the Arctic zone of the Russian Federation and ensuring national

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security for the period up to 2035".

The features of the region taken into account in the Russian legislation, namely:

- extreme natural and climatic conditions, including low air temperatures, strong winds and the presence of ice cover in the waters of the Arctic seas;
- focal nature of industrial and economic development of territories and low population density;
- remoteness from the main industrial centers, high resource intensity and dependence of economic activity and life support of the population on supplies from other regions of Russia of fuel, food and essential goods;
- low stability of ecological systems that determine the biological balance and climate of the Earth, and their dependence on even minor anthropogenic impacts.

Features of the region not taken into account in Russian legislation, namely:

- the special structure of the Arctic economy: regardless of the existing political system in all Arctic regions, the share of people employed in the public sector is higher, monopolization is higher;
- institutional remoteness: a large distance to decision-making centers is associated with the danger of using inefficient algorithms, is a generally recognized problem throughout the circumpolar Arctic;
- mobility and variability: present at all levels, seasonality, economic conditions change in connection with the cycles of development of raw deposits;
- a potentially important role in innovative development: all the challenges provided by the Arctic can potentially form the basis for the development of fundamentally new and competitive technologies, goods and products. Here one can draw a parallel between the exploration of the Arctic and the exploration of space: space projects in both the Soviet Union and America created the best technologies that fueled the economies of countries for a long time. Arctic technologies have the potential to become the basis for the country's innovative development as a whole. A significant demand for them in the Arctic region is noted both in the raw materials industries and in the sphere of life support. Economists note that the resource-extracting industry can become a "motor" for the development of innovative industries, but so far this link has not taken place.

Based on the results of considering the features of the Arctic region, we note that it needs a different economy in terms of its structure and partly in terms of management mechanisms, other institutions and other equipment.

Considering the fundamental choice: to develop the Arctic according to the canons of Central Russia, to make the Arctic "non-Arctic", to separate the Arctic region into a separate production, it is important to

take into account three aspects: cultural-ideological, organizational and economic.

Who goes to the North and stays in the North?

➤ earnings factor: research results show that people who differ in psychological qualities are sent to different regions of the North. In the works of the sociologist G.F. Kutsev from Tyumen State University, there are different degrees of orientation towards material wealth among those who come to the northern and southern regions: the higher the northern coefficient, the greater the proportion of people who came to earn money. During the construction of the Trans - Alaska oil pipeline and the development of oil and gas reserves in Western Siberia, the wages of workers could be 10 times higher than the wages of those who worked in the main settlement zone. At present, such a difference, with the exception of certain niches (extremely demanded specialists in the north of Canada, high-level managers of the primary industries in Russia), is not observed in the northern territories. People, who went to work from the 60s to the 80s of the last century, make up the main population of the modern Russian North. From this follows the discontent of the people who came to become the "material elite", since in Soviet times there were few ways for the population to improve their economic position. It is this category that is especially acutely aware of the gap in income, the deterioration of the financial situation and the loss of the opportunity to receive higher wages. Note that an important factor is the gap between reality and expectations, which were very large. People remember the situation in the Northern regions, when, during the years of shortage, the number of available goods made it possible to send parcels to the main areas of settlement. When the crisis occurred in Russia in the 1990s, the Arctic territories entered it later, than the mainland. Thus, the moral crisis observed in many northern cities is due to the fact that the general change in attitude towards the North hit the category of people who did not realize their expectations.

➤ "It's better to live in the city" - a quote from a study of students at the Taimyr School, among whom there is a large proportion of representatives of the indigenous peoples of the North. The quote refers to a broader phenomenon - urbanization, during which people move from rural areas to cities. This phenomenon is global, it reflects the general trend of the settlement network. In the territories of the foreign Arctic, there is a "female exodus", that is, women leave small settlements first of all, and then men. In Russia, these processes began in the years of the USSR and continue to go on at the present time, being one of the sources of growth of northern cities. They lead to the loss of traditional types of economy and the way of life of the indigenous population of the regions, the loss of their natural habitat. The other category is people who flee from problems at home. In the North, one can meet natives of almost all "hot

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spots", the most affected by unemployment regions of Russia and neighboring states. For this category of people, the Arctic is a territory of opportunity. If residents of certain regions of Azerbaijan and the countries of Central Asia could not open their own business in their homeland due to the deep economic crisis, then in the northern city they have the opportunity to realize themselves.

➤ professionals - a category that is becoming more and more numerous. Specialists come to the North for a short time to participate in the project. If people who came for the sake of earning money were inclined not to spend money, saving them for vacation periods or going back, then highly paid professionals create conditions for the development of the local economy.

➤ stability orientation is a recently emerged category of people. Good social living conditions have been created in large resource-rich Arctic cities, including a developed infrastructure for children. The northerners understand that it is easier for them to realize their need for housing, for example, a specialist who has studied in Moscow returns, because it is difficult to earn an apartment in the capital, in Norilsk this can be done within two years. As a rule, low real estate prices are typical for cities with a declining population.

➤ orientation to unusualness - a category of people who go to the Arctic regions for the specifics of the north. Its representatives are proud of life in the North and enjoy living conditions because it is interesting. The anthropologist and architect has long lived with the Eskimos in a remote community, and currently works in Fairbanks, Alaska, an experimental center that is developing new types of energy-efficient housing for indigenous people. The houses designed by him are designed in such a way that in off-road conditions it would be possible to deliver them to the assembly site in one flight of a small aircraft. The situation of adjustment to the specifics of the Arctic requires people who have come not to earn money, but who are eager to work creatively for the good, making people's lives comfortable, interesting and adequate to northern conditions. The founder of the reserve on Taimyr and Muscovite V.V. Larin moved to the North not only because he was the largest specialist in mountain sheep, but also a reader of the book "Territory" by O. Kuvaev. A Japanese sailor K. Yoshikawa, who is fond of sailing, once "froze" into the ice off the coast of Alaska, he owes his salvation to a group of local residents. Now a professor of cryolithology at the University of Fairbanks has created a series of educational videos about permafrost and is breeding reindeer brought from Northern Chukotka. This example is specific to Alaska because its legal system allows for more freedom. Note that in its history there were migration waves associated with the gold rush and the construction of the Alaska oil pipeline. When raising

the question of the need to consolidate the population in the Arctic, it is important to remember that that in its development the role of representatives of this category is much more significant than the role of representatives of other categories. The concept of "quality of life" includes not only good conditions, but also satisfaction from realized opportunities, including creativity.

The composition of the population is a very significant factor for the development of the territory. People's expectations and abilities are a factor that needs to be planned when predicting the development of the Arctic. Ideological framework for the development of the Arctic.

Recently, efforts have been made to create a romantic image of the Arctic and organize powerful information support. The Arctic region is positioned as a frontier - not just the development of the territory, but intensive development, causing a complete restructuring of social institutions and natural landscapes - the formation of new responses to the challenges of uncertainty. In fact, the frontier is the formation of a new development trajectory.

Frontier is a scientific term introduced by the American historian F. Turner, who designated this concept as the border between civilization and savagery in the book *Frontier of American History*, published in 1898. Often the frontier is illustrated with the picture "American progress", which is perceived ambiguously in modern ethical frameworks: under the onslaught of American progress, herds of bison, bears and Indians are being destroyed from the face of the earth. The frontier has another aspect, which reflects the slogan - "The spirit and success of America is directly related to the expansion of the country to the West." Comparison of descriptions of the development in the 19th century of new territories in the USA and Siberia shows many parallels. This process gave meaning to the American nation and began to be perceived by it as an uplifting idea that inspires modern Americans to exploits. The frontier of the 1960s is the frontier of new opportunities and risks, unsatisfied aspirations and challenges. Beyond the frontier are unexplored areas of science and space, unresolved problems of peace and war. Thus, a new American society was created in the crucible of the development of the North. in the ideology of the United States, the experience of conquering spaces in the past inspired future victories. The frontier of the 1960s is the frontier of new opportunities and risks, unsatisfied aspirations and challenges. Beyond the frontier are unexplored areas of science and space, unresolved problems of peace and war. Thus, a new American society was created in the crucible of the development of the North. in the ideology of the United States, the experience of conquering spaces in the past inspired future victories.

W. Hickel was governor of Alaska twice, in the book "Problems of Public Property. Is the Alaska

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Model an Opportunity for Russia?" he writes: "The frontier has nothing to do with the concept of "border", associated with the image of a man in a raccoon hat with a gun in his hands. We are talking about other borders - about those frontiers, about those important goals that we set for ourselves. They mobilize creative strength, imagination, and ingenuity of the human mind Few begin the life of pioneers with a decent bank account Discovery is born in the mind In order to be creative, the mind must be open and inspired The opportunity for humanity is to once again set itself such goals and overcome these limits." W. Hickie worked in the early years of the state, the idea of the frontier helped him a lot in creating a new region with an unusual social and economic system for the country. Half of the territory of Alaska was fixed as the property of the state itself, which made it possible to create a new mechanism for the reproduction of its economic base: oil companies paid not only taxes, but also paid for the lease of the territory.

The history of development in Russia certainly had the spirit of the frontier, including desperate courage and the ability to independently choose a strategy of behavior. Oil geologist F. Salmanov was the discoverer of "big oil" in the eastern part of the Khanty-Mansi Autonomous Okrug. Working in the Kemerovo region, F. Salmanov decided that there was no oil in it and arbitrarily transferred the batch, loading equipment onto a barge. This was a serious violation of labor discipline, the geologist should have been expelled from the Communist Party of the Soviet Union. When F. Salmanov discovered oil in Siberia, he sent N.S. A telegram to Khrushchev: "I found oil. That's it. Salmanov." Yu. Pimenov's painting "Wedding on Tomorrow's Street" was painted in 1962. After the Great Patriotic War, people enthusiastically perceived the situation of permanent construction. If today we start talking about the use of the ideology of the frontier, which is associated with disorder, then we can come across a significant fatigue of people. The evolution of the perception of O. Kuvaev's landmark novel "Territory", which glorifies the romance of exploration and the possibility of building the Arctic model of life, is characteristic. The text of the novel contains a dialogue between a young geologist Baklavov and an experienced geologist, reflecting the cult of a man similar to F. Salmanov, that is, capable of having his own opinion and the courage to defend it: at this age you will be guided by "accepted" and "not accepted", you are already a loser. The novel was filmed in 1978, in the film the dialogue was modified: "If you want to be a geologist, forget the words "so accepted" and "so exactly." And there is no boss in the search. "Thus, it was a geologist in Soviet times who embodied the ability to break stereotypes and discover new things.

Now the development of the North is no longer associated with the creation of new social and economic values, mechanisms and models.

Arctic governance is not a state, but a process aimed at increasing the predictability of the economic development of this territory and maintaining the sovereignty of the country:

➤ sectoral territorial development: small centers - significant subordinate territories: when they talk about the development of the Arctic, they often mention such super-organizations as the Main Directorate of the Northern Sea Route and Dal Stroy of the NKVD of the USSR - the state trust for road and industrial construction in the Upper Kolyma region, which used labor of prisoners. Nothing justifies the death of a significant number of the best people in the country in the camps, in this case, an economic and managerial model is considered that has a significant degree of autonomy and experience in creating resources for the development of large deposits. A collision occurred with Dal Stroy when geologist Yu. Bilibin, after an expedition in 1928, based on fragmentary data, made a bold prediction about the presence of an extensive gold-bearing area in Kolyma. The documents submitted to the country's leadership dealt with both placer and ore gold potential, in particular, the Srednekanskaya dike was mentioned, in respect of which the forecast turned out to be overestimated. In the hope of discovering the richest reserves of gold there, Dal Stroy was organized, as a result, the organization dispersed its forces over a large territory.

➤ institutional remoteness: it is difficult to adequately manage the development of a resource area from a remote center, especially in the absence of a clear connection and local knowledge. This factor is well illustrated by the memoirs of the pilot M.I. Shevelev about the creation of the Northern Sea Route: "Stalin asked:" Do you think all this can be done? "They answered:" If there is a decision. "Stalin:" Show me where is your Tiksi? "- Schmidt went to the map and showed. Stalin chuckled, "Yeah! Every week we scold this People's Commissariat for the fact that he cannot properly transport oil from Baku along the Volga, and you want him to build a port there? So it won't work! The Arctic is a complex thing. We need to create an organization that would be responsible for everything. And I would know - he is responsible for the Arctic and nothing more. And we will ask her - and strictly! We will write a resolution:

The model of creating a quasi-autonomous company responsible for the development of a large piece of new territory has occurred more than once in history. It was often accompanied by the formation of special organizational structures designed to consolidate efforts and sharply increase the rate of state penetration into new areas. The need for such structures increased with the exhaustion of the old schemes for the development of territories, the crisis of the old forms of development. The concept of "superorganization" was introduced by the economic geographer A.N. Pilyasov, studying the activities of



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"Dal system":

A superorganization is a monopoly structure created by the supreme executive power of the state, under its patronage and direct supervision, for the development of vast (new) spaces in order to use unique resources in the national interests and solve geopolitical problems. The integral attributes of a superorganization are goal absolutism, a rigid internal vertical hierarchy, huge powers delegated by the state, an autonomous life support system (territorial-sectoral development framework), a system for the production and accumulation of regional information and planning. An example of a superorganization is the Main Directorate of Oil and Gas Production in the Tyumen Region, which operated in the 1960s and 1970s. Such structures were created for the development of resources, therefore they are in a certain dependence on them: The peaks of gold production in the Magadan region fell on the years of the Great Patriotic War and the 1970s, when new deposits were put into operation in Chukotka. If at an early stage superorganizations (not all) were responsible for the integrated development of territories, then at the peak stages of resource extraction they became monoprofile. Economists note the perniciousness of the situation when the life of the city is connected with the city-forming enterprise: the impoverishment of the socio-cultural environment, the blocking of innovative development. The described situation predetermines a dead-end development option associated with the depletion of the deposit: diversification, controlled compression. In the case of a superorganization, by and large, a monoprofile territory arises. Thus, on the one hand, such a model solves the institutional problem of remoteness, autonomy from the central government for the sake of making adequate decisions is its powerful advantage. On the other hand, their creation is determined by the extraction of a "super resource", which lays a mine for further development - the depletion of reserves deprives the economic base and the ability to maintain the system. Territory Management Option as Collective Property: Opportunities and Traps. The way out of this situation could be the creation of a quasi-autonomous organization not of a sectoral, but of a territorial profile. Such a model of organizing the management of a remote territory is described in the book by W. Hickie "Problems of Public Property. Model of Alaska - Opportunities for Russia?". Many of the mechanisms created in Alaska were new, such as the collective ownership mechanism, as well as the fund accumulating oil revenues, the funds of which, according to the plan, were intended for the development of the state (construction of social and transport infrastructure, etc.). The pathos of collective property lies in the fact that it is an autonomous way of collective management of the territory, but modern Alaska has practically abandoned this approach. The

University of Alaska is currently in a crisis because its funding has been cut by 40% to please political groups that have reallocated the fund's funds to pay residents of the state. "Eating away" funds cannot be described as an effective way of managing collective property. It should be noted that both corporate and territorial management of the territory, after a while, comes to a crisis for political reasons or due to narrow specialization: non-sectoral management in Alaska, "Dal Stroy" and the Main Directorate of the Northern Sea Route - branch. We emphasize that for remote territories a high degree of autonomy at a certain stage is more beneficial than control from outside. Access to decision-making regarding the development of the territory attracts creative people of the frontier type, who are focused on creating something new.

In the past, Deputy Minister of Economic Development of the Russian Federation, and now the Governor of the Nenets Autonomous District A.V. Cybulsky said: "The Arctic requires large-scale projects." It is necessary to add - quickly implemented large-scale frontier projects that can break down political and infrastructural barriers that impede the development of the Arctic territories. The speed of the processes matters: detonation differs from combustion in that chemical reactions and the process of energy release proceed with the formation of a shock wave in the reacting substance, and the involvement of new portions of the explosive in the chemical reaction occurs at the front of the shock wave, and not through heat conduction and diffusion, as with slow burning. The difference in the mechanisms of energy and substance transfer affect the rate of processes and the results of their action on the environment, however, in practice, there are very different combinations of these processes and transitions from combustion to detonation and vice versa. In this regard, various fast processes are usually referred to as chemical explosions without specifying their nature. The frontier as a process of involving a large turnover of resources into the economic turnover is similar to an explosion.

The classic frontier is characterized by the following effects:

- fast, almost explosive progress;
- technological innovation;
- mandatory formation of new social and cultural institutions and organizational structures;
- powerful, but short-term economic effect (increasing return on the involvement of new resources in the economic turnover);
- concentration of people of the frontier type.

When there is a need for the speed of implementation of large-scale projects? The frontier arises when for a long time a large amount of resources could not be put into economic circulation due to certain barriers: too far, expensive transportation, no development infrastructure. The Prudhoe Bay field came into full operation when an

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oil pipeline was built in Alaska, a similar situation with the oil fields of Western Siberia and the Kolyma gold. Almost all major Arctic projects were associated with overcoming barriers, primarily infrastructure ones. Small projects do not justify the construction of infrastructure when the project is developed gradually - it has a very long payback period. The Karachayevo - Salekhard road has been under construction since 2003, during which time the Trans-Siberian Railway from Chelyabinsk to Irkutsk was built. The project is stalling because the "cream" from the development of gas fields in the Nadym region has already been removed. The road had good chances in the 60s, when a decision was made to restore the Salekhard - Igarka road, which was not implemented, which led to significant losses of funds.

Explosive involvement in economic turnover creates a rare case when the raw materials industry brings increasing returns - the more invested, the greater the return per invested unit of funds. Note that this effect is short-lived, since further resource extraction is carried out in increasingly depleted or difficult areas, so the cost of extraction increases, the return decreases. Huge investments in new resource projects (railroads, sea route development) are justified in the presence of a large infrastructure project.

The development of new resource regions goes through several phases, which include the emergence of frontier people, superorganizations and other phenomena associated with the development of the Arctic.

➤ zero phase - rumors, tests and barriers: assumptions and information about potentially rich resources that are inaccessible for one reason or another (remoteness, imperfection of technologies, etc.). M.K. Sidorov at the end of the 19th century was the first to try to deliver graphite along the Northern Sea Route, J. Lid organized the first trading operations when the transportation tariffs were still very expensive. Alaska was supposed to have gold back in the days when it was the territory of Russia, but the gold rush began only after a considerable time.

➤ the first phase is an information (demonstration) breakthrough: a pioneer is found (F. Salmanov), who proves the possibility of obtaining energy in a new space. This phenomenon is also explained from the point of view of the bifurcation theory: when the trajectory breaks down, a random factor plays a significant role, which justifies the enormous role of the individual in history. The economic effect, as a rule, is still small, the information effect is powerful, but the barrier has not yet been broken (project stage).

➤ the second phase - breaking down the barrier: a revolution in infrastructure, ideology, technology; large (venture) investments, most often state ones; institutional and organizational building; powerful ideological support (advertisement of the project - a

demonstration of Igarka to foreign journalists as a demonstration of the achievements of the Soviet government in the development of the Far North, the legitimization of large investments). The stage of sprinters, the founding of cities.

➤ the third phase - the peak of production: the ossification of institutions and organizations; the greatest economic return, while reducing enthusiasm. Stage stayers and the emergence of superorganizations.

3.1. peak production: development of a proven resource

3.2. blast wave effect

➤ fourth phase - flooding of the frontier

4.1. ghost towns or shift towns

4.2. transition from the frontier to the "normal" economy: economist L. Husky notes that after the stage of peak production it is possible to reach such a level of the local economy, when a city appears on the site of the frontier city, which can independently maintain its existence by providing services to the surrounding territories (g . Surgut).

At the peak of production, when the infrastructure has been built and a large organization has been created, in which a rigid hierarchy has been established, there are no more pioneers, managers and specialists-engineers are working. People who are frontier in spirit manifest themselves in the zero and first phases of the cycle, where they can best realize themselves. Geologist I.L. Zhulanova described the paradox of "Dal system", noting that as a result of the work of the country's most freedom-loving people - geologists, a powerful administrative-repressive structure was created.

The objectives of the development of the transport system in Russia are as follows.

Goal 1. Formation of a single transport space in Russia based on the balanced development of an efficient transport infrastructure.

Achieving this goal will ensure the dynamic growth of the Russian economy, social development and strengthening of ties between its regions by eliminating territorial and structural imbalances in transport, involving new territories in the economic turnover by creating additional transport links, increasing the competitiveness and efficiency of other sectors of the economy by providing opportunities unhindered entry of business entities to regional and international markets, the growth of entrepreneurial and business activity, which directly affects the quality of life and the level of social activity of the population.

The single transport space of Russia should ensure the functioning of a single balanced system of transport communications, an integrated system of commodity transport technological infrastructure for all modes of transport and cargo owners, the use of uniform standards for the technological compatibility of various modes of transport that optimize their

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interaction, uniform standards for the technical compatibility of various modes of transport and vehicles, as well as create a unified information environment for the technological interaction of various modes of transport.

Thus, within the framework of this goal, the development of transport infrastructure refers not only to the development of transport communications and hubs. A qualitatively new level of system development is assumed within the framework of a single transport space in combination with a commodity transport technological infrastructure, transport infrastructure of cargo owners, technical compatibility standards, as well as an information environment for the interaction of various modes of transport.

Within the framework of this goal, at the first stage of the implementation of the Transport Strategy, the construction and reconstruction of the main directions of roads and railways, the infrastructure of sea and river ports, inland waterways and airports, the elimination of the most significant gaps and "bottlenecks" of the transport network, including in the Asian parts of Russia. The development of transport approaches to border checkpoints and large transport hubs will be ensured, their comprehensive development in the main directions of transportation will be ensured. Infrastructural conditions will be created for the development of potential points of economic growth, including the integrated development of new territories and the development of mineral deposits, primarily in Siberia and the Far East.

At the next stage of the implementation of the Transport Strategy, within the framework of this goal, a transition to the formation of a single transport space in Russia will be ensured. Based on the differentiated development of communication routes for all types of transport, the creation of a single balanced system of transport communications of the country will be ensured. The throughput and speed parameters of the transport infrastructure will be raised to the level of the best world achievements, the share of high-speed communications will be increased. In order to form a modern commodity distribution network that ensures the volume and quality of transport services, an interconnected integrated system of commodity transport technological infrastructure for all types of transport and cargo owners, an integrated system of logistics parks will be created on the territory of the country, as well as a unified information environment for the technological interaction of various modes of transport and participants in the transport process. During the development of the transport system, innovative technologies for the construction, reconstruction and maintenance of infrastructure will be mastered.

Goal 2. Ensuring the availability, volume and competitiveness of transport services according to

quality criteria for cargo owners at the level of the needs of the innovative development of the country's economy.

Achieving this goal will make it possible to fully meet the needs of the population and business entities in high-quality transport services through the introduction of advanced transport technologies and the development of passenger and freight rolling stock fleets, as well as to ensure the provision of transport services of social and economic significance of proper quality and at affordable prices.

Achieving this goal involves, first of all, the development and implementation of a model of the transport services market for the needs of all sectors of the economy. This model is innovative for the domestic transport system. It should define the parameters of the quality of transport services, the framework of quality standards for various categories of goods and sectors of the economy, the requirements for the development of the regulatory framework in the field of transport services and technological models for ensuring the quality of transport services.

In order to form a market for competitive transport services, it is necessary to create conditions for the excess of the supply of transport services over demand, as well as launch the "price - quality" mechanism, which will ensure the formation of a competitive environment and the growth of competitiveness.

Motivation mechanisms for the structural modernization of existing transport systems should be developed and put into effect in order to ensure the quality of transport services, leading, in particular, to the creation of national and international competitive transport companies.

Realization of this goal presupposes the achievement of the commercial speed of movement of goods and the rhythm of their delivery "from door to door" at the level of the best world achievements. Due to this, the economy of the country is expected to reduce the costs of circulation of goods, expressed in large volumes of working capital, as well as in significant amounts of crediting goods in transit and in stock. In seaports and checkpoints across the state border of the Russian Federation, as well as in the entire terminal network, the time for processing consignments of goods will be reduced to the level of the best world achievements.

To do this, it is necessary to introduce mechanisms to motivate the use of innovative logistics technologies, develop a system of related services and fleets of freight rolling stock that provide the specified criteria for the volume and quality of transport services at the level necessary for the implementation of the Transport Strategy. It is necessary to develop and experimentally develop highly efficient commodity transport technologies that provide quality criteria for the entire range of transport services and increase the productivity of the

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transport system. An important role will be played by the expansion of the use of container transportation technologies, including for regional and interregional transportation, small and medium-sized businesses.

Goal 3. Ensuring the availability and quality of transport services for the population in accordance with social standards.

Achieving this goal means meeting in full the growing needs of the population for transportation, as well as special requirements, in particular from citizens with disabilities, ensuring a stable connection of settlements with the main network of transport communications, as well as ensuring the affordability of transport services of social importance.

First of all, within the framework of this goal, it is planned to ensure the transportation of passengers on socially significant routes, including ensuring their affordability, including in the regions of the Far North, the Far East, Transbaikalia and the Kaliningrad region.

It is planned to develop systems of urban and suburban passenger transport, fleets of passenger rolling stock, comparable in technical and economic parameters with the world level, as well as the development of systems that provide high-speed and high-speed transportation of passengers.

At the next stage of the implementation of the Transport Strategy, the industry should take part in the development of minimum social transport standards to ensure the possibility of movement of all segments of the population throughout the country. These standards in terms of their transport component should determine the requirements for the development of the necessary communications for all types of passenger transport, the corresponding rolling stock, indicators of the affordability of transport services for the population, as well as requirements for the frequency and schedule of transport services for each settlement.

The state policy in the field of ensuring the availability and quality of transport services for the population involves the fixing of minimum social transport standards at the legislative level and the use of mechanisms to compensate for losses in the income of transport companies resulting from state regulation of tariffs for passenger transportation.

The development and implementation of a program for the implementation of minimum social transport standards throughout the country should be ensured. At the same time, these minimum standards should provide for a progressive scale, taking into account the gradual improvement in the conditions of transport services to the population.

Goal 4. Integration into the global transport space and realization of the country's transit potential.

Achieving this goal will mean laying a solid foundation for Russia's successful integration into the global transport system, expanding the access of Russian transport service providers to foreign markets, strengthening Russia's role in shaping

international transport policy, and turning the export of transport services into one of the country's largest sources of income.

The implementation of this goal involves, first of all, the development of technical and technological parameters of international transport corridors that ensure their competitiveness at the level of world analogues. This requires monitoring the market for the export of transport services, studying the advantages of competitors, developing a set of measures to improve the technical and technological parameters of international transport corridors, planning their development and harmonizing within the framework of international cooperation on transport corridors.

Integration into the international transport space, first of all, can be effectively implemented within the framework of the EurAsEC and the countries of the Shanghai Cooperation Organization. One of the promising ways to implement this initiative is the formation of container "bridges". In addition, integration into the global transport space involves the development of international cooperation with other international transport organizations and other trading partners of Russia, the expansion of participation in the system of international agreements and conventions in the field of transport, as well as in major international transport projects. It is also expected to develop and put into effect appropriate mechanisms of state regulation, motivating the creation of national and international competitive transport companies.

An increase in the share of participation of Russian transport organizations in the transportation of domestic export and import cargo, as well as cargo between third countries, requires the development and implementation of appropriate legislative and other regulatory methods that ensure the competitiveness of Russian transport.

In order to increase the receipt of foreign exchange funds from the export of transport products, taking into account international experience and economic interests in the protection of transport services in the national and international markets, it is planned to develop legislative standards that provide for:

preferential (and in some cases exclusive) admission of Russian carriers to the carriage of goods for the needs of the state, constituent entities of the Russian Federation and municipalities, as well as strategic cargo;

advantages of national carriers and forwarders over foreign ones when investing in the construction of facilities in Russia, as well as in the development of raw materials, including those developed in accordance with the Federal Law "On Production Sharing Agreements".

Goal 5. Increase the level of safety of the transport system.

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The implementation of this goal will improve the safety of traffic, flights and navigation, ensure the efficient operation of emergency rescue services, civil defense units, special services, achieve a safe level of functioning of transport infrastructure facilities, increase the level of compliance of the transport system with the tasks of ensuring the country's military security and thereby create the necessary conditions for an appropriate level of national security and reduction of terrorist risks.

Within the framework of this goal, due to a set of measures, it is supposed to achieve a level of traffic, flight and navigation safety that meets international and national requirements.

Ensuring transport security will improve the state of protection of transport infrastructure facilities and vehicles from illegal actions, including terrorist activities, that threaten the safe operation of the transport complex.

The activity of specialized emergency rescue services in cooperation with the Ministry of the Russian Federation for Civil Defense, Emergency Situations and Elimination of Consequences of Natural Disasters will be carried out at the level of international and national requirements.

The level of protection of the transport infrastructure and vehicles from acts of unlawful interference will be increased, a higher level of security for the transport of goods requiring special conditions will be ensured.

The implementation of measures to ensure the military security of the Russian Federation in order to timely meet the needs of the military organization of the state in transport services will make it possible to achieve the required level of mobilization readiness of public transport (including dual-use facilities), stocks of state and mobilization reserves, preparation of a set of measures for technical cover and restoration all types of transport communications, preparation and maintenance of all types of vehicles.

In addition to the means and measures of direct transport security, the development of means and effective systems of supervision in the field of transport is of great importance in achieving this goal. Without their improvement, management in the field of ensuring the safety of the transport system will be deprived of effective feedback.

The level of safety of the transport system within the framework of this goal will be increased through the development of systems for professional admission to transport activities through licensing or declaration (notification).

An important role in achieving a high level of safety should also be played by meeting the needs of the transport complex for specialists with a high level of professional training that meet the requirements for the safety and stability of the transport system.

Goal 6. Reducing the harmful impact of transport on the environment.

Achieving this goal will contribute to creating conditions for reducing the level of technogenic impact of transport on the environment and human health and ensuring compliance with international environmental standards for the industry.

To this end, it is planned to develop and put into effect mechanisms of state regulation that provide motivation for the transfer of vehicles to environmentally friendly fuels, as well as a decrease in the level of energy intensity of transport to the level of indicators of advanced countries.

An important reserve for reducing the volume of impacts, emissions and discharges, the amount of waste in all modes of transport is the professional training of personnel operating vehicles. Another reserve for reducing the harmful effects of transport on human health within the framework of this goal is the rationalization of traffic routes.

The implementation of these goals involves the implementation of a set of research subprograms that ensure the development of new models, methods, technologies, tools and systems. These works form the scientific support of the Transport Strategy. The introduction of developments, the implementation of projects and activities is provided for within the framework of a set of subject subprograms aimed at achieving the specified general economic, general social and general transport strategic targets, as well as within the development subprograms by modes of transport and subprograms aimed at putting into operation the main mechanisms for the implementation of the Transport strategies.

Goals for the development of the Russian transport system for the period up to 2035 and the values of the indicators for the implementation of the Transport Strategy, for which statistical information is currently available.

In addition, it is planned to carry out research work on the creation of statistical tools, monitoring and evaluation of values for such new indicators as:

reserve capacity of the transport network by type of transport in the main directions of cargo and passenger traffic;

commercial speed of movement of main commodity flows;

urgency of cargo delivery;

the level of containerization of transported goods;

development of transport and logistics technologies;

specific transportation costs in the final price of products;

ensuring the affordability of transport services for the population;

the level of security of the state of transport infrastructure facilities;

reducing the energy intensity of the transport system.

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### Conclusion

There is no need to hope for a “miraculous transformation” in the understanding of transport and transport science. The current view of transport is rooted in the practice of economic policy, the architecture of economic planning has been laid out for it, in which transport is assigned a “working” place - to be in the “service” of production, that is, within the framework of a spatial development strategy, but not the locomotive of its promotion. The history of the rise of Rome, Holland, Spain, Portugal, Britain, a little later than Germany, and the historical experience of the Russian State do not teach politicians. Even the birth of space transport has changed little in the political understanding of transport, and as long as political reflection is not built on the basis of general scientific thinking, scientific and philosophical ideas will remain wishes, but not imperatives.

The integration of economic science is realized unilaterally, it loses its specific methodological base, borrowing mathematical methods of analysis. It is, of course, fruitful, and no one doubts its effectiveness, however, the movement of economic science, in addition to the “quantitative” coast, also has a political one, on which the qualitative guidelines of the movement, regulated by the world outlook, are built. Not transport should be subordinated to the development of the economy, but the economy should be developed on the basis of the modern understanding of transport as a system-forming factor in the movement of the world in general and social progress in particular. The history of man as a biological species and social form of human reality testifies that evolution was carried out thanks to the development of living space by mankind, moving first in physical space, and, as the formation of their own social space, and in it. Civilization is the product of this process.

Summing up, I would like to note that the strategic government documents on interaction with the regions of the Russian Arctic can be called insufficiently elaborated and of insufficient quality, namely:

Firstly, the degree of possible regulatory impact is reduced due to the lack of specific methods for achieving the set goals in the national program, despite the fact that the goals are very specific. Such a combination of specific goals and “blurred” methods leads to shifting the responsibility for achieving the goals exclusively to the regional authorities, who are forced to independently develop ways to achieve the targets;

secondly, a characteristic feature of government strategies is the fundamental disregard for regional specifics: despite the presence of descriptions of key regional problems in program documents, the analysis of regional specifics (institutional, cultural, social) is present only at the level of a “brief reference” about the region, which, of course, is not enough to develop

an adequate strategy for socio-economic development.

It is curious that the analyzed strategic documents ignore not only the cultural characteristics of the Russian Arctic regions, which have a very serious impact on all spheres of life of these societies through existing institutional structures, but also socio-economic characteristics, such as the causes of unemployment and the specifics of employment in the regions or demand for tourism services. All of the above factors, as well as many others, have a significant impact on the process of implementing the strategy, and on the possible results of its implementation. In other words, without a comprehensive preliminary analysis of regional specifics, the development of a national strategy for the socio-economic development of the Russian Arctic regions looks like a political adventure. Initially, we were guided by the assumption that that the state policy in relation to the regions of the Russian Arctic does not take into account some important factors that negatively affect the results of the policy. It was assumed that the Center ignores cultural specifics because of its complexity and ambiguous impact on socio-economic processes, or because culture is not the “sphere of interest” of the Ministry of Regions, which is responsible for territorial development, but it was found that the institutional features of the regions are also not taken into account in strategic documents. As a result, the results of applying the same measures in the regions of the Russian Arctic and in other parts of the Russian Federation can differ significantly, at least due to differences in the informal rules of the game, in stable working procedures. However, the socio-economic characteristics of the regions of the Russian Arctic, which are directly related to the jurisdiction of this department, are analyzed by the Ministry of the region, in strategic documents prepared by far from exhaustive. Ignoring regional features and specifics is not a distinctive feature of the Center's policy exclusively in relation to the regions of the Russian Arctic: regional cultural and institutional features are not taken into account when developing federal strategies and targeted programs, in principle, in relation to all regions of the Russian Federation. Another thing is that in the case of the regions of the Russian Arctic, the neglect of cultural and political and economic specifics is superimposed on much more difficult conditions and leads to much more serious consequences - the regional features of the Russian Arctic simply cannot be ignored. Let us recall the boundaries of the large-scale modernization of the BAM and the Trans-Siberian Railway, which were determined by V. Putin - an increase in their throughput in 2035 to over 200 million tons of cargo per year. To achieve such a result, it is necessary not only to build additional tracks, tunnels and

## Impact Factor:

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<b>ISI (Dubai, UAE)</b>	<b>= 1.582</b>	<b>ПИИИ (Russia)</b>	<b>= 3.939</b>	<b>PIF (India)</b>	<b>= 1.940</b>
<b>GIF (Australia)</b>	<b>= 0.564</b>	<b>ESJI (KZ)</b>	<b>= 8.771</b>	<b>IBI (India)</b>	<b>= 4.260</b>
<b>JIF</b>	<b>= 1.500</b>	<b>SJIF (Morocco)</b>	<b>= 7.184</b>	<b>OAJI (USA)</b>	<b>= 0.350</b>

interchanges, but also to increase the speed of movement.

The first stage of the project (2018-2020) worth 562.4 billion rubles. (reduced as a result of the audit to 520.5 billion rubles) provides for an increase in the carrying capacity of the BAM and the Trans-Siberian Railway in the direction of seaports and border crossings of the Far East to 124.9 million tons (+66.8 million tons compared to 2012). This year alone, Russian Railways will spend 30 billion rubles on the development of the Eastern railway range.

"In order to increase cargo traffic, it is planned to put into operation more than 45 km of new second tracks on the BAM sections. Open traffic on the stages Lena Vostochnaya - Predlensky and Delbichinda - Daban. It is also planned to reconstruct three stations: Vikhorevka, Bayronovka and Meget," the press service of the East Siberian Railway (VSZhD) notes.

True, it will be difficult to meet the deadlines due to the accumulated backlog. "At the end of 2020, Russian Railways did not complete a number of facilities. For example, in accordance with the passport of the project "Development of the BAM and the Trans-Siberian Railway", in 2018, 11 sidings and 78 km of additional tracks were to be built. At the end of the year, only one object was accepted (reconstruction of the subgrade at the section of the western BAM "Khani - Tynda")," the Accounts Chamber concluded following the results of the audit. However, the head of Russian Railways, O. Belozеров, assures that the project will be completed on time.

At the second stage (2021-2025), it is necessary to build 1,310 km of additional main tracks, 32 sidings and reconstruct 29 stations, as a result of which cargo transportation along the highways will increase to 182 million tons, and by 2025, according to the new order of the President, up to 200 million tons. In total, it is planned to spend about 493.2 billion rubles for these purposes.

Russian Railways has already begun developing project documentation for the construction and modernization of a total of 84 facilities as part of the second stage of the modernization of BAM and the Trans-Siberian Railway. Particular attention is paid to the 15-kilometer Severomuysky tunnel. Today, it can only pass 16 trains per day (22 including detours). By reducing the interval and strengthening the traction power supply at the mountain pass section, it is possible to get on 27 pairs of trains weighing up to 6300 tons. This is the maximum, but it is too little. The introduction of digital technologies, for example, interval control of train traffic, which are successfully used on the Moscow Central Circle, can expand the "bottleneck" of BAM by 15-20%.

One way or another, without a modern infrastructure, neither "sew" the country, nor unleash the economic potential of Siberia and the Far East, nor diversify foreign economic relations for sure. In

addition, by increasing the capacity of the railways, "we will build the largest transport corridor from the Asia-Pacific countries to the EU states. Russia will take a key place in the global traffic flows," Viktor Zubarev, State Duma deputy from the Krasnoyarsk Territory, justifiably emphasizes.

Let us consider the materials that determine the approach to planning socio-economic development and to solving a number of problems in the Arctic zone, mainly in the Russian Federation, but based on foreign experience. The Arctic is a special territory in which many patterns of socio-economic development that are applicable to densely populated areas, the main zone of settlement, do not work. The Arctic must be approached with a special measure. This is noted by many experts who develop strategies for the development of Russian regions, faced with the Arctic region and coming to the understanding that the usual mechanisms do not work here.

Sectors of the economy of the Arctic region:

➤ modern "office" sector - social sphere, finance, insurance, administration, scientific and technical activity and art;

➤ service industries - trade, transport, communications, hotel and restaurant business - play a significant role in a number of regions of the foreign Arctic;

➤ industry - occupies relatively small shares in foreign Arctic countries, in Russia - plays a significant role, ranging from 50% to 75%;

➤ agriculture, forestry and fisheries.

The structure of the Arctic economy includes three sectors:

\* public services;

\* large resource corporations;

\* traditional farming.

• a network of small and medium-sized enterprises, as a rule, is absent, a large company or a consortium is often a monopolist, forming a single-industry region;

• local small business is reduced to two segments, formed on the basis of the advantage, which is determined by the need for specific knowledge and the presence of specific needs. These are areas associated with a special climate, permafrost, mining equipment and specific conditions for the occurrence of rocks (oil service), and tourism. If a small business overcomes existing restrictions, then it implements projects related to new technologies and specific niches. Purchases from regional entrepreneurs require special government support measures.

• The main competitive advantage of companies operating in the main settlement area is the advantage in price. It does not work in the Arctic, because the rise in the cost of goods occurs due to a number of factors: remoteness from production sites, high cost of construction work (permafrost conditions require special technologies), the inability to obtain economies of scale - a small market does not allow the

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development of large local enterprises working for regional demand;

- the problems of domestic business are associated with the northern benefits that lie on the

shoulders of the employer. It is difficult for small companies to fulfill these obligations; at present, this problem has no solution, which is a pity.

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