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The Arctic and Nordic Countries in the World of Economyand Politics

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RUSSIA'S ARCTIC SHIPPING

Today, due to the process commonly referred to as "global warming", the term Russia's "Arctic shipping" is mainly used to mean shipping on the route connecting the Atlantic and the Pacific, and which is called the Northeast Passage or the Northern Sea Route. Yet, it is a far-reaching simplification. The volume of transit shipping traffic on this route is growing, but in fact rather slowly and it is only a small percentage of the stream of goods flowing through a major artery linking Europe with the Far East, that is, through the Suez Canal. Thus, although from the perspective of the world trade, shipping on the Northern Sea Route still seems exotic, for the Russian Federation it is the most important maritime shipping route, and perhaps the most important artery of the country.

Historical background

Russian shipping in the North has a long tradition. Pomors, Russian settlers on the White Sea coast, as early as the sixteenth and seventeenth centuries, travelled to distant lands in the east, along the coast of Siberia[2]. At the beginning of the sixteenth century they penetrated to the trans-Ural areas, where they established a settlement of Mangazeya. It was situated on the banks of the river Taz, the so-called Mangazeya Sea Route, from the mouth of the Northern Dvina, around the

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[2] To sail in northern waters, they used special ship called koch. It was a small, one- board vessel, from 10 to 25 metres in length, with a draft of 1-1.5 metres, and a cargo capacity of up to 30 t. A typical koch carried one square sail on each of its two masts, and, usually, two triangular sails on the bowsprit and its maximum speed in favourable weather conditions was 6-7 knots. The ship could seat 10-15 people. The characteristic construction feature of the ship was the flat or rounded hull, below the water line, which made it maneuverable when dodging ice floes, as well as the additional strengthening skin-planking made of oak. In the bottom part there was a false keel for on-ice portage (and for damage prevention from running aground in shallow waters).

Yamal Peninsula, to the mouth of the Ob and further along the Taz until reaching the Yenisei River. However, regular sailing activity in northern waters started a few hundred years later. During 1878-1879, a Swedish-Finnish explorer in the Russian service, Adolf Nordenskiöld, made the first complete passage of the North East Passage in the *Vega* expedition, however, it did not carry major future implications for shipping. In 1893, a significant amount of rails was delivered by sea to the mouth of the Yenisei, then transported up the river and used to construct the Trans-Siberian Railway. Twelve years later, a fleet of twenty-two ships transported industrial goods from Germany and the UK to the north, but the economic results of the "expedition" were so discouraging that the investors chose not to repeat it.

The following years were not conducive to the continuation of the Russian exploration efforts in the Arctic. The Russo-Japanese War, the revolution of 1905 impeded the Arctic research, but paradoxically, the lessons from the defeat at Tsushima had given rise to its new dynamics. Initiated in the years 1909-1910 the Arctic Ocean Hydrographic Expedition (led by Ivan Sergeyev), using the icebreakers "Vaigach" and "Taimyr", was charged with a highly pragmatic task of making the Northern Sea Route sailable. If they had been successful, the Russian fleet would gain the capability of changing the position of forces on the Baltic and the Black Sea as well as the basins of the Far East by a considerably shorter route. In 1913, after two years of research in the eastern part of the Russian Arctic Sea, two ships (commanded by Lieutenant Commander Boris Wilkicki, who substituted for Sergeyew, who fell ill) sailed in the region of the Taimyr Peninsula, where an archipelago named Emperor Nicholas II Land (now Northern Land) was discovered. During 1914-1915, both the icebreakers managed to complete the route from Vladivostok to Arkhangelsk using the Northern Passage.

During the Russian Civil War the government of Admiral Kolchak (nota bene, an honoured researcher of Arctic waters, a member of the expedition of Baron von Toll) set up a committee of the Northern Sea Route. After getting northern Russia under control, the Bolsheviks followed the idea as the same body was established by the Siberian Revolutionary Committee. Moreover, during 1920-1921 two research institutes: the Northern Science and Industry Expedition (later became first the Arctic and Antarctic Scientific Research Institute and finally the All-Union Arctic Institute), and the Floating Maritime Institute were founded. However, the foundation of the All-Union "Glavkomisiemorput" – an economic organization, which was in charge of the area stretching from the Kolguyev Island (in the south- east part of the Barents Sea) to the Bear Islands (at the mouth of the Kolyma River) was of key significance. At that time it employed about 35 thousand people.

Since 1921 in the western part of the Russian Arctic, and since 1923 in the eastern part every effort has been made to launch regular shipping. In 1924, the first aerial reconnaissance to examine ice conditions in the Kara Sea was carried out. Since 1929, this activity has been regular, and since 1936 it has been carried out over the whole Northern Sea Route.

The launch of regular shipping in the north was essential for the start of the exploitation of natural resources of Siberia. Due to the extreme natural conditions in this region, which make the exploration process extremely costly, the plans to extend longitudinal railway tracks were abandoned. Thus, the only way to the industrial development of the Siberian inland was by means of latitudinal navigation (initially seasonal and then all year-round) in the Arctic Sea, and inland navigation carried out on large rivers combined into one functional system.

Following the expedition of the ship *Sibiriakow* in 1932, which managed to sail the entire length of the Northern Sea Route, sailing in the north in the period from May to November was considered possible. The practical expression of this observation was the establishment, in the same year, the Main Directorate of the Northern Sea Route. In the thirties and forties in the north, in the Russian Arctic, several ports and marinas were built, modernized and extended, for example:

- Dikson - now the city is a major port on the Kara Sea,
- Dudinka - on the right bank of the Yenisei within 230 nautical miles from the river's mouth, the port processes and sends cargo to the Norilsk Mining and Smelting Factory,
- Igarka - in the northern part of Krasnoyarsk Krai, on the Yenisei,
- Khathanga - on the Taimyr Peninsula in the Krasnoyarsk, on the Khatanga river,
- Tiksi - on the shore of the Buor-Khaya Gulfchaja (the Laptev Sea), near the mouth of the Lena River, at the foot of Charaulasky Mountains
- Zelenyj Mys (Cape Green) - on the west coast of the Northern Island, which is part of the Novaya Zemlya,
- Pevek - on the shores of the Chalunskaya Bay, in the Czukotka Autonomous Okrug (Chukchi Autonomous District),
- Mys Shmidta - on the northern shores of the Chukchi Peninsula, nearby there was an air base for strategic bombers with a runway of 1100 m in length,
- Chersky - 1920 km east of Yakutsk, on the Kolyma River,
- Prowidienija - at the Bering Strait, on the shores of the Gulf of Prowidienija,
- Anadyr – the city on the Anadyr Lowland, the capital of the Czukotka Autonomous Okrug (Chukchi Autonomous District), located on the Anadyr estuary, between the bays Onemen and Anadyrsky Liman (the Bering Sea).

Further exploratory expeditions, which in the late 1930s and the beginning of 1940s turned into a permanent, systematic scientific effort, played the key role in maintaining the capacity of the Northern Sea Route, and making it reasonably safe. The following activities can be listed here as an example: the expedition of an icebreaker *Sadko* (1935) as well as drifts of the ship *Georgy Sedov* (1937-1940, 3500 km, 812 days), establishing in 1937, a research station *Severny Polius*, record flights over the pole from the Soviet Union to the United States (1937), organizing in 1938 regular ice patrols, making the way from the Far East to the Barents Sea by military ships and the post-war expedition of an icebreaker *Severny Polius*

(1946) and ships *Litke* (1948) and *Ob* (1956). Additionally, dozens of fixed and floating Arctic stations, established since the 1930s, should be mentioned.

In the 1960s and 1970s, the Soviet Arctic shipping grew steadily. In 1978, thanks to icebreakers, including the nuclear-powered vessels, and introducing special arctic freighters (built mainly in Finland) a year-round shipping operation for Dudinka, a main outlet of the industrial complex built around Norilsk, was made possible. In the summer navigation season, all ports of the north are accessible, both sea ports and those situated on the great Siberian rivers. The satellite observation of the Arctic areas also plays an important role in maintaining the continuity of navigation, so dependent on ice conditions.

Maritime transport remains the most important link between the industrial centers located along the Yenisei and Ob and the rest of the country. Nickel and copper from mines located in the region of Norilsk are exported by rail to Dudinka and further, by means of cargo ships, down the Yenisei and along the coast. Timber from Igarka is transported in the same way. Also, most of the materials and equipment for the mining industry (including the operations on the Yamal Peninsula) are transported aboard Arctic freighters to the estuary of the Ob and further transported upriver using barges.

Ships operating from Arkhangelsk and Murmansk reach, Tiksi, the port located in the central part of the northern Siberia (the Laptev Sea). The route also covers the lower reaches of Lena together with the villages and settlements in the area.

In the Far East, the most important routes along the Northeast Passage link Vladivostok and other ports of the region with Pevek, situated on the coast of the East Siberian Sea. The Kolyma River providing access to areas in the hinterland, has been a major arterial thoroughfare. It makes the dispatch of the extracted minerals possible, at the same time providing supplies to the isolated, virtually cut off from the world settlements.

In the last years of the Soviet Union, approximately 7 million tons of various goods were transported via the Northern Sea Route. After the break-up of the Soviet empire northern shipping faced severe difficulties resulting from the general economic crisis. In the mid 1990s transport fell to about 1.5 million tons[3]. However, the turn of the century turned out a period of economic recovery of Siberia. This process was associated with a surge in global demand for oil and natural gas. In such conditions, Russia, being the largest beneficiary of that

[3] But even in a situation of economic crisis, the Russian authorities saw the key significance of maritime transport. On 3 December 1992 the president of the Russian Federation issued a decree *About the tools of the regeneration of the Russian trade fleet,* which resulted in the Government's adoption, on 8 October 1993, of an appropriate project. The project has remained largely unrealized, but it allowed finishing the construction of the icebreaker *50 Liet Pobedy*. It also led to the initiation of the ongoing program to develop a new generation of icebreakers, whose capabilities would guarantee the use of the Northern Sea Route and provide the support of other activities in the Arctic. I. Wyciechowska, *Rosja – aspiracje i możliwości uzyskania statusu mocarstwa morskiego*, in: Morze *w cywilizacji, kulturze i stosunkach międzynarodowych*, Warsaw-Pieniezno 2006, p. 112.

change, again began to invest in polar navigation, which was stimulated by developing new deposits in the north. In 2012, ships sailing the Arctic Sea carried about 10 million tons of various goods.

Today in Russia there are about 200 registered shipping companies. Of these, more than 30 run the shipping service in the North. Among all of the service providers in ports; fishing companies and various agents operating research vessels and training ships, a strong group of commercial entities, engaged both in merchant shipping and in services to meet the full range of its needs, can be singled out.

Table 1. Russian shipping companies engaged operating in the North.

	NAME	**Port (city)**
1	Federal State Unitary Enterprise «Atomflot»	Murmansk
2	Northern Shipping Co	Arkhangelsk
3	Murmansk Shipping Co	Murmansk
4	Far Eastern Shipping Company	Vladivostok
5	MMC Norilsk Nickel	Norilsk
6	Sovcomflot	Moscou
7	White Sea - Onega Shipping	Petrozavodsk
6	Arkhangelsk Tralflot	Arkhangelsk
9	Sevrybkholodflot	Murmansk
10	Novorossiysk Port Authority	Novorossiysk
11	Arkhangel Port Authority	Arkhangelsk
12	Marine Transport Services	Arkhangelsk
13	Murmansk Port Authority	Murmansk
14	Northern River Shipping	Arkhangelsk
15	Marine Arctic Geological	Murmansk
16	Murmansk Technical University	Murmansk
17	Arctic Shipping Co	Tiksi
18	Murmansk Trawl Fleet Co	Murmansk
19	Murmansk Administration	Murmansk
20	ABB Turbocharging-Vladivostok	Vladivostok
21	Sevrybpromrazvedka	Murmansk
22	Rosexportles, JSC	Igarka
23	Igarka, Administration	Igarka
24	Murmanrybprom	Murmansk
25	Nord-Mor Service Ltd	Murmansk
26	Murmansk Salvage Dept	Murmansk
27	Arkhangelsk Port Authority	Arkhangelsk
28	Dalmorneftegeophysica	Yuzhno-Sakhalinsk
29	Norfes-Marine Service Co Ltd	Vladivostok
30	Rybkholodflot	Petropavlovsk-Kamchatskiy
31	RIMSCO	Vladivostok
32	Delo Co Ltd	Murmansk

Author's own compilation.

It seems, that only building a fleet of nuclear-powered icebreakers has made regular shipping on the Northern Sea Route possible, or but for them such high intensity of traffic should be considered unlikely. Between 1959 and 1994 nine such vessels were built. In the Soviet Union, nuclear-powered icebreakers were operated by the state ship owner - Murmansk Arctic Steamship Company. After the collapse of communism, however, the company has been commercialized. At the same time, Federal State Unitary Enterprise Atomflot (Russian: *Федеральное государственное унитарное предприятие „Атомфлот"*) was founded to operate a fleet of civilian nuclear- powered vessels. Its main tasks are:

- Ice pilotage of vessels on the Northern Sea Route (NSR) and to the freezing ports of Russia,
- container shipping by atomic lighter *Siewmorput* (ros. *Севморпуть*),
- support of expeditionary, scientific and research works, carried out on the Arctic Sea,
- emergency and rescue ice operations on the Northern Sea Route and freezing seas,
- common and special technical maintenance and repair works of the atomic fleet,
- handling of nuclear materials and radioactive wastes used in shipping
- tourist voyages to the North Pole, islands and archipelagoes of the Central Arctic[4].

In 2008, under the order of the President of the Russian Federation, "Atomflot" joined the state-owned corporation "Rosatom" (Russian: Государственной корпорации по атомной энергии "Росатом"), involved in the use of nuclear power for civil purposes.

Operational lifetime of *Rossiya and Taimyr* is bound to expire in 2018. *Sovetskiy Soyuz* and *Vaygach* will be kept operational until 2020, and two years later *Yamal* will become obsolete. In order to keep the potential of atomic icebreakers, whose capabilities serve an important economic and, perhaps primarily, political role, Russia made a decision to launch the construction of a new type of vessel known as LK-60. The ship has been designed by the Iceberg Central Design Office (in cooperation with Aker Arctic Technology Inc. from Finland) using the experience in developing and operation of previous ships, especially of the icebreaker *50 Let Pobedy*, with its unique design features such as a "spoon" bow and extended hull frames. According to the publicized materials, its displacement tonnage will be 33,600 t., with length of 172.2 metres, width of 33.0 metres and a draft of between 8.5 - 10.5 m. It will be fitted with two reactors and a three-shaft propulsion arrangement. It is estimated, that it will be able to maintain a constant speed of 1.5-2 knots breaking through ice up to 2.8 - 2.9 meters thick. Due to the extensive use of automated systems, the vessel is considered to employ a reduced crew of 74 people. Russia's ambitious plan assumes the construction of four units featuring the above specification, and one heavy icebreaker – a "leader" with a displacement tonnage of 40 000 t.

[4] Деятельность, http://rosatomflot.ru/index.php?menuid=5, 29.11.2012.

Table 2. Soviet and Russian nuclear-powered icebreakers.

Name	launch ---------- date of commissioning	Model	Type	Notes
Lenin	*1957* ---------- *1959*	92M	*Icebreaker*	Decommissioned in 1989. Today museum ship.
Arktika	1972 ---------- 1975	1052-1	*Icebreaker*	In 1982-1986 known as *Leonid Brezniev*. Not operational, destined for scrapping.
Sibir	1976 ---------- 1977	1052-2	*Icebreaker*	Not operational. At constant maintenance to 2015.
Rossija	1983 ---------- 1985	10521-1	*Icebreaker*	
Taimyr	1989 ---------- 1989	10580-1	*River Icebreaker*	
Sovetskiy Sojuz	1986 ---------- 1989	10521-2	*Icebreaker*	
Vajgach	1989 ---------- 1990	10580-2	*River Icebreaker*	
Yamal	1986 ---------- 1992	10521-3	*Icebreaker*	Built originally as *Oktiabrskaja Riewolucja*
50 Let Pobedy	1989 ---------- 2007	10522	*Icebreaker*	Built originally as *Ural*.

Author's own compilation.

Cutting the metal sheets for the first icebreaker of the new type (known as project 22220) began in St. Petersburg Baltic Plant on 1 November 2012 (the contract between the "Rosatom" and "Atomflot" on one side and the Baltic Plant the other, was signed on 23 August). Launching of the keel has been scheduled for November 2013, launching of the vessel is expected to take place in 2015. The vessel is to be delivered to the ship-owner by December 2017[5]. It is expected, that sticking to this schedule will ensure the maintenance of the inventory of nuclear

[5] Baltic Shipyard to build new large nuclear-powered icebreaker (Project 22220 LC-60YA), http://www.navyrecognition.com/index.php?option=com_content&task=view&id=552, 29.11.2012.

icebreakers while increasing the capabilities of the fleet[6].

The Murmansk Shipping Company (*Murmansk Shipping Co., MSCO*; *Мурманское Морское Пароходство*), which operates as a commercial entity, has a unique fleet of units designed for shipping in icing conditions. The fleet includes:

- dry cargo fleet: two general cargo ships (type: SA-15), Finnish construction, displacement of 19 924 t.; five bulk carrier ships (type: Mikhail Strekalovsky), German construction, displacement from 19 252 t. to 23350 t.); four bulk carrier ships (type: Grumant) displacement of 23 645 t., five bulk carrier ships, gearless (type: Dmitry Pozharsky, displacement of 23 169t.; one general cargo ship (type: Ivan Papanin displacement of 10 125 t.,
- tanker fleet: two oil tankers (type: Suezmax) displacement of 143 000 t.; oil tanker (type: Khatanga) displacement of 23 000 t.; two tankers (type: Lunni) displacement of 16 000 t.; oil tanker (type: Kotlas) displacement of 2 800 t.,
- one passenger ship *Klavdija Elanskaja* (Yugoslovian construction),
- icebreaker *Vladymir Ignatiuk*,
- auxiliary vessels (four units).

FESCO (*Far Eastern Shipping Company, FESCO; Russian: Дальневосточное Морское Пароходство,*) operates in the Russian Far East, deploying diesel-powered icebreakers. Of course, this division is purely formal, and when necessary, atomic icebreakers from the west break the ice in the east. Far Eastern Shipping Company is a large group of companies, which provide a wide range of transport and logistics services. In addition to the vessels designed for operating in the Arctic, the company owns several dozen of ships operating in other regions, as well as container terminal facilities and a fleet of trucks. There are two types of vessels, owned by FESCO, which are designed for Arctic operations: diesel-powered icebreakers and polar freighters. Far Eastern Shipping Company currently has three icebreakers (*Admiral Makarov*, Finnish construction, capacity of 7554 t.; *Kapitan Khlebnikov*, Finnish construction, capacity of 4418 t.; *Magadan*, Finnish construction, capacity of 1909 t.) The group of polar freighters consists of six Finnish vessels and one unit produced in the Soviet Union.

In recent years, another ship-owner has emerged on Russia's Arctic waters. MMC Norilsk Nickel *(ГМК Норильский никель)* has been consistently involved in ship construction to create its own fleet. The first ship, called *Norilsk Nickel* started operating in April 2006. In 2008, *Monchegorsk* and *Zapolarnyj*, then *Talnak* and *Nadezhda* raised flags. All of the vessels display a high level of technological advancement, have diesel-electric propulsion systems and are designed for navigation in ice (the capability of breaking 1.5m-thick ice at an average speed of 3 knots).

The first unit was developed in Aker Finnyards in Finland, four others in the German shipyard (also the part of Aker Group) Wadan[7]. On 1 March 2010, the

[6] Резка металла для нового ледокола началась, http://rosatomflot.ru/index.php?menuid=49&date=2012-11-0&newsid=485, 29.11.2012.

[7] *Norilsk Nickel completed creation of its own arctic fleet*, http://www.nornik.ru/en/press/news/2372/ (11 March 2010).

company signed a contract with the Nordic Yard, which owns shipyards in the German city of Wiesmar, to build a tanker of the capacity of 15 000 t[8]. The tanker, called Yenisei, has already been in operation.

New challenges, but also opportunities for the Russian Arctic shipping, have been created by commissioning the Varandey oil terminal by Lukoil in partnership with ConocoPhillips[9]. The terminal is located off the shore of the Barents Sea (called the Pechora Sea), 28 km from the coast of Nenets Autonomous region. The facility of the capacity of 12 million tons per year (240 000 barrels per day) is supplied with oil from an onshore tank farm capable to store 325 000 cubic meters of oil. The oil is transported by means of a pipeline with a diameter of 820 mm and a length of 32 km. The facility, which is 53 metres high and weighs 11000 t., is in the shape of a huge dolphin fixed to the seabed. It is fitted with: a mooring system, cargo handling systems, social rooms and living quarters for the crew and helicopter landing pad. Mooring tankers are assisted by the tug - icebreaker[10].

Three Arctic oil tankers, *Vasily Dinkow*, *Captain Gotski* and *Timofei Guzenko*, owned by Sovcomflot, were initially intended for the transportation of oil from the terminal. In 2010, another two (*Mikhail Ulyanov and Kirill Lavrov*) joined them. On 9 June 2008 *Vasily Dinkow* loaded the first cargo of 70 000 t. of oil and sailed to the Canadian port of Come by Chance, Newfounland.

Table 3. "Arctic" oil tankers owned by Sovcomflot

Vessels	*Vasily Dinkow*, *Captain Gotski Timofei Guzenko*	*Mikhail Ulyanov and Kirill Lavrov*
Construction	Samsung Heavy Industries, South Korea	Admiralty Shipyard, St. Peterburg
Data of commissioning	1 January 2008	27 February 2010
	26 May 2008	
	24 February 2009	14 September 2010
Flag	Russia	Cyprus
Length [m]	256,0	257,0
Width [m]	34,0	34,0
Draft [m]	14,0	13,60
Capacity[t]	71 254	69 830
Gross tonnage	49 597	49 866
Net tonnage	20 486	21 303
Speed [knots]	16	16

Authro's own compilation, according to: *SCG Sovcomflot, Fleet List*, http://www.scf-group.com/pages.aspx?cs=4&cid=3&cs2=1 (02.02.2011).

[8] *MMC Norilsk Nickel and Nordic Yards sign contract for construction of arctic tanker*, http://www.nornik.ru/en/press/news/2898/ (3 March 2010).

[9] *LUKoil starts oil exports through Varandey terminal*, http://www.neurope.eu/articles/87870.php (10.01.2011).

[10] S. Hurst, *Varandey Arctic oil terminal starts up*, http://www.petroleumnews.com/pntruncate/539572303.shtml (22.02.2011).

Marine shipping has close, functional links with inland navigation. One of the biggest inland carriers operating in the north of Russia is Yenisei River Shipping Company (Russian: Енисейское Речное Пароходство). The company was founded in the 1930s, now the state government owns 26% of its shares. It transports cargo on the waterways from Krasnoyarsk to Dikson at a distance of over 2600 km. A total of eight ship-owning companies, with over a thousand various vessels, operate on Siberian rivers. In fact, only the inland navigation, carried out in the short summer navigation season, allows the exploration of the natural resources of the area[11].

Conclusion

Of all the countries involved in marine navigation and those claiming their rights to the shelf in the Arctic Ocean, Russia has the biggest shipping potential. Both tangible and intangible factors contribute to this situation. The following factors can be listed:

- over a hundred years of navigation in the North and the resulting unique experience,
- the world's largest fleet of freighters designed for sailing icy waters,
- the world's largest fleet of icebreakers (nuclear and conventional) able to fully secure the needs of commercial shipping
- developed (and expanded) system of ports and marinas as well as the well-developed sea rescue system (SAR),
- modern hydrometeorological system, called *Sievier*[12], which provides support to the navigation in the Arctic, effective solutions to formal and administrative provisions governing the navigation of the Arctic
- police forces capable of effective law enforcement and military segment remaining in readiness to support other agencies and departments of the state in the north.

From the Russian perspective, both the inland cabotage in the northern waters and the routes starting in the ports of the Northeast Passage and ending in the Russian ports located on the coast of the Pacific (possibly in foreign ports of the Atlantic and Pacific) have the greatest economic importance. Transit shipping

[11] The thesis is supported by the number of river ports linked to the marine transportation system, as there are: two ports on the Northern Dvina, one on the Pechora, one on the Irtysh, one on the Tura, ten on the Ob, one on the tributary of the Ob, called the Tom River, one on the tributary of the Ob, called the Chulym River , one on the Taz, one on the Nadym River, one on the Pur River, five on the Yenisei, four on the tributary of the Yenisei, the Angara, six on the Lena, one on the tributary of the Lena, the Aldan, one on the tributary of the Lena, the Vilyuy

[12] This may be facilitated by Russia's high level of development. The system collects data from satellites, network of coastal polar stations, automated drifting stations, and those from international exchange, for its further processing, analysis and distribution. It has been experimentally used to support the expedition of the ship *Akademik Fedorov* to the North Pole (which arrived there in August 2005), then for the routine support of the ship *Norilsk Nickel* on the route Murmansk-Dudinka (without support of icebreakers).

carried out on the Northern Sea Route is of secondary importance, although the potential of this passage is undoubtedly recognized by Russia[13].

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Abstract

The following years were not conducive to the continuation of the Russian exploration efforts in the Arctic. The Russo-Japanese War, the revolution of 1905 impeded the Arctic research, but paradoxically, the lessons from the defeat at Tsushima had given rise to its new dynamics. Initiated in the years 1909-1910 the Arctic Ocean Hydrographic Expedition (led by Ivan Sergeyev), using the icebreakers "was charged with a highly pragmatic task of making the Northern Sea Route sailable. If they had been successful, the Russian fleet would gain the capability of changing the position of forces on the Baltic and the Black Sea as well as the basins of the Far East by a considerably shorter route. In 1913, after two years of research in the eastern part of the Russian Arctic Sea, two ships (commanded by Lieutenant Commander Boris Wilkicki, who substituted for

[13] Russian shipowning companies expect boom in transportation. Shipping company Sovkomflot (Russian: *Совкомфлот – Современный коммерческий флот*), which specializes in transporting crude oil, oil products and liquefied gas commissioned ten tankers and two gas carriers fitted with additional support against ice. Nowadays it already carries out transport operations in the northern part of Russia's Arctic handling about 6 million tons of crude oil and oil products yearly, and it is estimated that by 2015 the volume of shipment will increase four-fold, and by 2020 even six times.

Sergeyew, who fell ill) sailed in the region of the Taimyr Peninsula, where an archipelago named Emperor Nicholas II Land (now Northern Land) was discovered. During 1914-1915, icebreakers Vaigach" and "Taimyr", managed to complete the route from Vladivostok to Arkhangelsk using the Northern Passage. Today in Russia there are about 200 registered shipping companies. Of these, more than 30 run the shipping service in the North. Among all of the service providers in ports; fishing companies and various agents operating research vessels and training ships, a strong group of commercial entities, engaged both in merchant shipping and in services to meet the full range of its needs, can be singled out. Now, from the Russian perspective, both the inland cabotage in the northern waters and the routes starting in the ports of the Northeast Passage and ending in the Russian ports located on the coast of the Pacific (possibly in foreign ports of the Atlantic and Pacific) have the greatest economic importance. Transit shipping carried out on the Northern Sea Route is of secondary importance, although the potential of this passage is undoubtedly recognized by Russia.

Rosyjska żegluga arktyczna

Obecnie, w związku z procesami zwanymi „globalnym ociepleniem" pod pojęciem „rosyjska żegluga arktyczna" rozumie się głównie korzystanie z trasy łączącej Atlantyk z Pacyfikiem, a zwanej przejściem Północno-Zachodnim lub Północną Drogą Morską. Tymczasem jest to daleko idące uproszczenie. Wolumen przewozów tranzytowych realizowanych tą trasą rośnie, ale w istocie dość powoli i nadal jest to zaledwie znikomy procent strumienia towarów przepływających przez zasadniczą arterię łączącą Europę z Dalekim Wschodem, czyli przez Kanał Sueski. O ile więc żegluga Północną Drogą Morską jest nadal, oceniając przez pryzmat handlu światowego, pewną egzotyką, o tyle dla Federacji Rosyjskiej jest to najważniejszy morski szlak żeglugowym, a może też najważniejsza arteria komunikacyjna państwa. Rosja dysponuje obecnie największym potencjałem żeglugowym, ze wszystkich państw prowadzących aktywne działania i zgłaszających roszczenia do szelfu na Morzu Arktycznym. Składają się nań zarówno czynniki niematerialne i materialne, do których zaliczyć można: ponad 100 lat uprawiania żeglugi na wodach północnych i wynikające z tego unikatowe doświadczenie, największą na świecie flotyllę frachtowców dostosowanych do żeglugi na akwenach zlodzonych, największą na świecie flotyllę lodołamaczy (nuklearnych i konwencjonalnych) zdolnych do pełnego zabezpieczenia potrzeb żeglugi handlowej, rozwinięty (i rozbudowywany) system portów i przystania oraz rozwijany system ratownictwa morskiego (SAR), nowoczesny system zabezpieczenia hydrometeorologicznego żeglugi w Arktyce, efektywne rozwiązania formalno-administracyjne regulujące żeglugę a Arktyce, siły policyjne zdolne do skutecznego egzekwowania prawa wraz z segmentem militarnym pozostającym w gotowości do wsparcia innych agend i służb państwa na północy. Z rosyjskiego punktu widzenia największe znaczenie gospodarcze ma kabotaż wewnętrzny

uprawiany na wodach północnych oraz szlaki rozpoczynające się w portach Północnej Drogi Morskiej i kończące się w rosyjskich portach położonych nad Pacyfikiem (ewentualnie w zagranicznych portach Atlantyku i Pacyfiku). Żegluga tranzytowa uprawiana na Północnej Drodze Morskiej ma znaczenie drugorzędne, choć potencjał tego szlaku jest niewątpliwie przez Rosję dostrzegany.

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