

WAYS OF WAR

The role of Russian logistics infrastructure in the war against Ukraine

The report was conducted with the participation of experts from Trap Aggressor project and the sanctions teams of the Kyiv School of Economics and the National Agency on Corruption Prevention of Ukraine.



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1. The use of Russian logistics infrastructure in the war against Ukraine

Logistics infrastructure plays a critical role in any military campaign, providing the necessary resources to support troops on the battlefield. This infrastructure encompasses a wide range of elements, including vehicles, storage facilities, roads, railways, airports and ports, which together form a network for the efficient movement of troops, ammunition, food and other critical materials.

When Russia launched its large-scale invasion of Ukraine, it relied heavily on its logistics infrastructure to support its troops. Thanks to a developed network of railways, highways, airports and ports, Russia was able to move military units and logistical resources quickly. This allowed it to quickly build up its military presence on the border with Ukraine and launch an offensive. At present, Russia is actively using various elements of its transport infrastructure to continue the war, including the supply of weapons and military equipment, the transportation of personnel, and the supply of military-industrial complex enterprises, which is becoming even more important and relevant in the context of a protracted war of attrition.

In addition, logistics infrastructure plays an important role in circumventing international sanctions. Through various networks and complex logistics schemes, Russia supplies sanctioned goods necessary for the manufacture of weapons and military equipment, which helps maintain its military potential. Russian state-owned and private transport companies, ports, airports, and terminals have reoriented themselves to connect with the so-called "friendly countries" used for such supplies, including as transit areas.

The logistics network feeds Russia's economy and provides it with resources to wage war. It plays a key role in the export of natural resources, the proceeds of which are used to finance the war.

The application of sanctions restrictions to elements of Russia's transport infrastructure is an important measure to reduce Russia's military potential, military-industrial complex capabilities and ability to continue the war.

2. Aviation infrastructure

Russia's aviation infrastructure plays an important role in the war against Ukraine, especially in terms of operational logistics and supply. Thanks to air transport, Russia is able to quickly transport military equipment, ammunition, equipment and supplies to the frontline.

Russian military transport aviation, using, among other things, civilian aviation infrastructure, regularly delivers cruise and ballistic missiles, barrage UAVs such as Shahed-136, etc. to strategic aviation basing sites and areas of use.

Civilian cargo aviation provides deliveries of sanctioned goods, including for the production of weapons.

State and private airlines deliver foreign weapons and spare parts for military equipment to Russia, and provide transportation for delegations and specialists from countries with which Russia has military cooperation.

The airports play a key role in accommodating cargo aircraft used to deliver sanctioned goods, as well as military aircraft that carry out numerous attacks on Ukraine and deliver weapons.

Handling companies, for their part, provide aircraft maintenance.

The vast majority of these companies are not sanctioned by most countries of the sanctions coalition, which allows them to continue to operate without hindrance, import the necessary products, and engage in international cooperation. This also sends a signal to the rest of the market that it is possible to meet Russian demand for profit without exposing themselves to the risk of sanctions.

2.1. Airlines

2.1.1. Volga-Dnepr Group of Companies

Volga-Dnepr Group is a Russian aviation holding company specialising in charter cargo services using An-124-100 Ruslan and Il-76TD-90VD heavy transport aircraft. The Group has related companies and representative offices in more than 10 countries.

Owners:

Isaikin Aleksey Ivanovich (TIN 770405603410, under sanctions of the United Kingdom, Canada and Ukraine);

Shklyanik Sergey Ivanovich (TIN 770804439659, under Ukrainian sanctions).

The airline's planes were actively involved in transportation in the interests of the Russian Ministry of Defence and the Russian military-industrial complex as part of the preparation of the Russian military machine and industry for a full-scale invasion of Ukraine.

After the start of the full-scale invasion and the introduction of sanctions restrictions, the company's activities were largely reoriented towards the transportation of sanctioned goods, including microelectronics for Russian weapons, from China, India, Turkey, the UAE, Vietnam, Pakistan, Azerbaijan, etc.

At the end of 2022, the company's aircraft were involved in the transportation of Russian Su-30 fighter jets undergoing major repairs at the 558th repair facility at Baranovichi airfield in the Republic of Belarus.

In addition, the group's aircraft repeatedly switched off ADS-B when flying towards Iran and Syria, probably to conceal their destination. Such flights could have transported personnel and military equipment of the Russian Armed Forces from Syria, as well as kamikaze UAVs from Iran.

Following the closure of airspace to Russian aircraft at the start of the full-scale invasion, four Volga-Dnepr planes were blocked at airports in the sanctions coalition:

- one AN-124-100 Ruslan aircraft with tail number: RA-82078 at Toronto International Airport, Canada. The Canadian authorities seized the aircraft and initiated the process of confiscation in favour of Ukraine;
- three AN-124-100 Ruslan aircraft RA-82043 (s/n 9773054155101), RA-82045 (s/n 9773052255113), and RA-82046 (s/n 9773052255117) at Leipzig-Halle Airport.

These planes carried out numerous flights commissioned by Rosoboronexport and the Russian authorities. Flights were also made to African countries, where the Wagner PMC operated during this period, and other countries where Russia had military partnerships and geopolitical interests.

For more information on the Group's activities and composition, see [Annex 1](#)

2.1.2. Aerostan Airlines

Aerostan Airlines LLC (registration number 59732-3300-OOO, TIN 00103200410040, Bishkek, Kyrgyz Republic) is a charter air cargo operator that provides air cargo services to Asia, Africa, Central and South America.

The company's aircraft are regularly used to transport foreign products to Russia to circumvent sanctions restrictions, including for Russian military-industrial complex enterprises - electronic components, aircraft and auto parts, production and industrial equipment, cameras and video cameras, remote control equipment for UAVs, etc.

The company supplied goods to the Russian companies **Fastair International LLC, Grover International LLC, Melitek LLC**, which have links to Russian sanctioned companies, as well as to companies operating in the interests of the Russian military-industrial complex.

Among other things, in November 2023, the airline transported **Alphadri® Magnesium Perchlorate produced by the US-based Alpha Resources**, which is used to make explosives, from the UAE to Russia.

Detailed information on the company's activities is provided in [Annex 2](#).

2.2. Airports

Russia regularly uses civilian airports to accommodate military aircraft, base aircraft and service flights delivering sanctioned goods, military equipment, weapons and personnel. Most of them are included in the "List of Jointly Used Airfields", according to which civilian airports are

used by the Ministry of Defence, the Russian Guard, the FSB, the FSO, aircraft manufacturing and repair companies, and some military aviation flight units¹.

There are 83 airports (aerodromes) in Russia that are open for international flights².

In total, there are 92 airports of federal significance in Russia. The largest airports are part of three groups: "Moscow Aviation Hub, Airports of the Regions and Novaport.

A number of these airports are used by Russian military aircraft, which Russia actively uses to shell Ukraine and to deliver troops, weapons and equipment to the frontline.

Koltsovo airfield, managed by **Koltsovo Airport JSC** (TIN 6608000446) - in addition to civilian aviation, the airfield is also home to military aviation of the Russian Ministry of Defence (since 2013, the 390th Separate Transport Mixed Aviation Regiment).

Perm International Airport, operated jointly by **Perm International Airport JSC** (TIN 5948043928) and the Russian Ministry of Defence, is a place for the deployment of military aircraft (69806-2 Sokol Aviation Group of the Russian Ministry of Defence - MiG-31 fighters).

The international airport of federal significance in Pskov, managed by **Pskov International Airport "Princess Olga" LLC** (TIN 6027200230), is a jointly operated airfield where the 334th Military Transport Berlin Red Banner Aviation Regiment (334th MTAR of the 61st Air Army of the Supreme Command) is stationed, with a fleet of IL-76 military transport aircraft. On the night of 29-30 August, the Pskov airport was attacked by unmanned aerial vehicles, as a result of which, according to the Defence Intelligence of Ukraine, the Russians lost at least four of their IL-76 military transport aircraft, which are used to transport enemy forces and means, personnel and equipment³.

Sheremetyevo International Airport is the largest international airport in Russia in terms of passenger and cargo traffic, and is among the top 5 largest hub airports in Europe. The airport is co-owned by the sanctioned Skorobogatko Oleksandr Ivanovych (sanctioned in Ukraine), Ponomarenko Oleksandr Anatoliyovych (sanctioned in all countries of the sanctions coalition), and Rotenberg Arkadiy Romanovych (sanctioned in all countries of the sanctions coalition). The airport has historical ties with the Russian Ministry of Defence, providing telecommunication and other services to certain military units (military units 43753, 54729, 55002)⁴.

Vnukovo is an international airport of federal significance, one of the four main airports in Moscow and the Moscow region. It is a joint airport with the Russian Federal Security Service and the Federal Security Service. It handles flights of the national carrier of Russia, the sanctioned airline Aeroflot (it is the airline's hub), and other sanctioned airlines such as Pobeda and others. The airport has been used on several occasions to receive Iranian transport aircraft that could transport Iranian kamikaze UAVs to Russia. 75% of the airport's ownership is held by private shareholders: the father of State Duma deputy Skoch Andrey Vladimirovich and co-owner of USM Holdings, Skoch Vladimir Nikitovich (under sanctions in Ukraine, the US, and the UK), Chairman of the Board of Directors of Vnukovo International Airport Vantsev Vitaly Anatolyevich (under sanctions in Ukraine), and Deputy CEO Kozhevnikov Viktor Yuryevich.

Sheremetyevo and **Vnukovo** are home to ATRAN airlines, which is part of the Volga-Dnepr group of companies described above.

¹ <https://rulings.ru/government/Rasporyazhenie-Pravitelstva-RF-ot-10.08.2007-N-1034-r/>

² <https://favt.gov.ru/deyatelnost-ajeroporty-i-ajerodromy-mezhdunarodnye-ajeroporty/>

³ <https://www.unian.ua/war/u-gur-pidtvirdili-shcho-u-pskovi-znishcheno-chotiri-il-76-12376311.html>

⁴ <https://checko.ru/company/mash-1027739374750?extra=contracts&law=44&role=supplier&page=6>

Among other things, **Begishevo International Airport** (Republic of Tatarstan) serves the logistics needs of the new Russian-made Shahed-136 (GERANI-2) UAV in the Alabuga Special Economic Zone. Cargoes with the necessary components and equipment are delivered to the airport, and flights with Iranian delegations and specialists arrive.

Zhukovsky International Airport (managed by Ramport Aero JSC, TIN 5040132193) is a federal airport located at the Ramenskoye LII Gromov Experimental Airfield. It has the largest runway in Europe (5,500 m), which allows it to receive passenger and cargo aircraft of any type. The airport is part of the Russian military conglomerate Rostec, which is a major supplier to the Russian military and related companies. The airport serves the sanctioned Russian airlines Pegas Fly, I Fly and Ural Airlines.

Khabarovsk International Airport - within the terminal complex for domestic flights operates **AERO-HIT LLC** (TIN 2700012608), which is engaged in the assembly of UAVs, producing 60 units per month (with the potential to expand production to two to three types of UAVs up to 1000 units per month). The beneficial owner of the airport and **AERO-HIT LLC** is **Basyuk Konstantin Vladimirovich** (under sanctions by Ukraine, the EU, Switzerland, and Japan), a member of the federation council of the Russian Federation since December 20, 2022, representing the illegally annexed Kherson region, a member of the defense and security committee, a graduate of the KGB higher school, who served in the FSB.

Despite the important role of Russian airports in providing Russia's logistics infrastructure, most of them are still not under sanctions.

For more information on Russian airports and management companies, see [Annex 3](#).

2.3 Handling companies

Handling companies provide aircraft ground handling services, including loading and unloading, flight preparation, and maintenance.

Handling companies, in fact, support all of the above activities of airlines and airports by servicing the aircraft used for the

- movement of military personnel, weapons, ammunition and other strategic cargo;
- of sanctioned goods, for the military industry.

Sheremetyevo International Airport is the founder of several handling companies that support its operations.

Sheremetyevo Handling LLC (TIN 5025018591), a member of the MASH Group of companies (Sheremetyevo International Airport), is Russia's largest airport handling operator.

Aero-Sheremetyevo JSC (TIN 5047146702) sells aviation fuel at Sheremetyevo Airport by refuelling aircraft on a wing-to-wing basis, with a nominal capacity of 1 million tonnes per year. It sells petroleum products under direct contracts with airlines. The main customers include sanctioned Russian airlines such as Aeroflot Russian Airlines, Pobeda Airlines, Severny Vetr Airlines, Icarus Airlines and others.

Sheremetyevo Airport is also serviced by **Sheremetyevo Parking LLC** (TIN 5047137955), **Sheremetyevo Security JSC** (TIN 7714122960), and **Imperial Duty Free JSC** (TIN 5047146741).

Streamline Ops CJSC (TIN 7734007250) operates non-scheduled aviation flights, including private, corporate and government flights, passenger and cargo charters. It has offices in 54 airports across Russia. It cooperates with Russian sanctioned airlines. Among its customers are the Russian **Federal Security Service and the Ministry of Emergency Situations**, as well as the **Yuri Gagarin Research Institute of Aerospace Engineering**.

Capital AviaNeft LLC (TIN 7703807400) specialises in full support of business aviation, commercial airlines and cargo flights, including ground handling, passenger and crew services, provides aircraft refuelling services, is the exclusive Russian partner of oil giants Shell and Air Total, and supplies modern foreign aviation equipment. Since 2019, the company has been a partner of Honeywell Aerospace in Europe. The company provides services to the **Yuri Gagarin Research Institute of the Central Aerospace Complex** and the **Russian Federation Presidential Administration's Special Flight Unit ROSSIA**.

Istyunion CJSC (TIN 7718879020) - provides charter flights around the world, ground handling and flight support, and consulting services for the purchase of aircraft. Its clients include **Roscosmos and the United Aircraft Corporation**.

Despite their important role in maintaining Russia's aviation infrastructure and servicing sanctioned companies, handling companies are not under sanctions and have access to foreign cooperation, supplies, etc.

For more information on handling companies and their activities, see [Annex 4](#).

2.4 Supply of dual-use goods

As sanctions restrictions are tightened, Russia is trying to create alternative supply chains for critical goods. A special role in this process is played by transport and logistics companies that supply the relevant goods, including by air. Among these goods, a special place is occupied by electronic components that are critical for the Russian military-industrial complex.

2.4.1 Sever-Yug Freight Forwarding Company

Sever-Yug Transportation and Forwarding Company LLC (TIN 6659084109) specialises in cargo transportation by air and sea. The company is represented in the UAE by **North South Cargo**. The company's manager is **Elena Skorokhod**.

North South Cargo uses the services of foreign partner companies to transport goods from the countries of North and South America, Australia, and Eurasia to Russia: Cargosave Inc. (USA); Sutch & Searle Shipping (Heathrow) LTD (UK); SAS (Scandinavian Airlines) (Sweden); Kragias Sped LTD (Greece); APC Asia Pacific Cargo (Singapore); Pacific Aviation Freight Forwarding Limited (Hong Kong); Speedmark Air Transportation (Indonesia); PMT Air (Cambodia); T.H.I. Group LTD (Taiwan); Worldwide Freight Forwarder Co. LTD (Thailand).

Imports and transit to the Russian Federation of sanctioned goods are organised through the UAE, for which the company **Albait Al Khaleeje General Trading Llc**, registered in the UAE, is used.

During 2022-2023, under this scheme, goods were supplied to **Spring Electronics JSC** (TIN 7806143127), which fulfilled orders in the interests of the Russian military-industrial complex, in

particular⁵: **Radiotekhhkomplekt JSC** (under Ukrainian sanctions), **Academician A.G. Shipunov Instrumentation Design Bureau JSC** (under Ukrainian and US sanctions), **Kalugapribor JSC** (under Ukrainian sanctions), **Krasnoe Znamya Plant PJSC** (under Ukrainian sanctions).

In addition, North South Cargo cooperates with Russian airlines under sanctions, such as⁶ : Aeroflot, UTair, AirBridgeCargo, Ural Airlines, S7 Airlines.

3. Rail infrastructure

Russian railways are the main transport artery of Russia's military supplies and are involved in the supply of military and special equipment, manpower, ammunition, fuel and lubricants to the war zone, the redeployment of troops and equipment, evacuation, supply, maintenance and transportation for Russian military-industrial complex enterprises.

The length of the railways allows Russia to connect different regions of the country. As of 2023, the map of Russian railways includes more than 85 thousand kilometres of tracks.

In December 2023, the President of the Russian Federation stated that Russian railways "successfully cope with the growth of traffic in the southern and southwestern direction, reliably provide military transportation, supply of raw materials to defence enterprises"⁷.

The railway infrastructure is also actively used to supply the necessary imported products to circumvent sanctions restrictions, mainly heavy and bulky goods such as industrial equipment and raw materials.

China is the main country for the supply of sanctioned products to Russia. Russia actively uses railway connections to deliver the relevant goods. Currently, there are three main ways of supplying military and dual-use goods from China to Russia by rail:

- **The Silk Road**, which runs along the Beijing-Novosibirsk-Yekaterinburg-Moscow route and is used to transport goods for various purposes, including food;
- **The Golden Route**, which is one of the most popular routes for parallel/grey exports via Harbin-Shenyang-Moscow-St. Petersburg. There is a possibility of transporting goods to Europe via Finland;
- **The Eastern Express**, which operates on the Harbin-Chita-Vladivostok route and is used, among other things, for passenger traffic.

The main point of departure on the Chinese side is the city of Manzhouli, while on the Russian side it is the cities of Pervouralsk and Ussuriysk. One of the most important border crossings between China and Russia is the Suifenhe - Jiamul railway point on the railway line connecting the Chinese province of Heilongjiang with the city of Khabarovsk and Sakhalin for the transportation of goods and passengers.

The largest national railway carrier, owner and builder of public railway infrastructure in Russia is Russian Railways (TIN 7708503727, under sanctions by all countries of the sanctions coalition except Japan, 100% of shares are owned by the Russian government), a Russian

⁵

<https://checko.ru/company/spring-ehlektroniks-1037816045651?extra=contracts&law=223&role=supplier>

⁶ <https://tekns.ru/o-kompanii/>

⁷ <https://ura.news/news/1052714175>

state-owned vertically integrated company that is one of the three largest transport companies in the world in terms of freight and passenger traffic and network length.

Russian Railways comprises 16 railways covering the entire territory of Russia from the Kaliningrad region to Sakhalin. The organisational structure of Russian Railways includes 57 vertically integrated branches, 7 representative offices and a number of subsidiaries.

The Russian rail freight market includes more than 1,000 operators and owners. Together, they form a strategically important complex that ensures the smooth operation of industrial enterprises, the delivery of goods and passenger transport services, including in the interests of the Russian military-industrial complex. The industry's 30 largest operators play a leading role in its development. These railway companies hold a large share of the fleet under management (78.2%) and provide a significant volume of traffic (79.8%).

Information on the largest railway operators in Russia in the first half of 2023⁸ is provided in [Annex 5](#).

3.1. Transportation of artillery shells and missiles from North Korea.

Of particular importance are the Trans-Siberian Railway (one of the longest railway lines in the world) and the Baikal-Amur Railway, which connect the eastern and western parts of the country, providing transport links with China, Mongolia, Kazakhstan and other Asian countries. During the preparation of the full-scale invasion of Ukraine, Russia used the Trans-Siberian railway⁹.

Today, this highway is used to reorient Russian trade to Asia due to Western sanctions and to organise the supply of artillery shells and missiles from North Korea.

In October-November 2023, facts were discovered of ammunition (probably artillery shells from the DPRK) being transported by rail in 20-foot sea containers of the logistics companies Transcontainer and Fesco.

Earlier, vessels carrying, among other things, Transcontainer and Fesco containers were identified in DPRK ports¹⁰.

At the same time, a significant increase in traffic was reported at a North Korean railway station near the border with Russia¹¹.

Both companies are major operators of container rail transport in Russia.

3.1.1. TRANSCONTAINER

TRANSCONTAINER PJSC (TIN 7708591995; under Ukrainian sanctions) is Russia's largest container rail transport operator, operating the largest fleet of containers and fitting platforms in

⁸ <https://www.kommersant.ru/doc/6225309>

⁹ <https://www.bloomberg.com/opinion/articles/2023-12-31/ukraine-is-attacking-a-russian-railroad-built-by-tsars-putin-needs>

¹⁰ <https://maritime-executive.com/article/report-sanctioned-russian-supply-ship-lady-r-spotted-in-north-korea>

¹¹ <https://beyondparallel.csis.org/dramatic-increase-in-dprk-russia-border-rail-traffic-after-kim-putin-summit/>

Russia on more than 300,000 routes in Russia and abroad¹². The company has been under Ukrainian sanctions since October 2022.

The Transcontainer Group of companies includes representative offices in Latvia and Uzbekistan, subsidiaries and joint ventures in Austria, South Korea, Japan, Finland, China, Mongolia and Belarus. The group is owned by Russian businessman Sergei Shishkarev and the state corporation Rosatom.

In addition to transporting North Korean weapons, the group may also be involved in providing railway logistics for the new Russian-made Shahed-136 (Geranium-2) barrage UAVs in the Alabuga Special Economic Zone in Tatarstan. In the spring of 2023, it was announced that Transcontainer would be the operator of a new railway terminal in the Alabuga SEZ. The owner, Sergey Shishkarev, and the group's president, Vitaly Evdokimenko, were part of a Russian delegation that visited Iran in January 2023, probably as part of agreements to set up the production facility in the Alabuga SEZ.

In addition, TransContainer Group provided freight forwarding services to Russian military units, the Russian Guard and military-industrial enterprises.

Detailed information and composition of the group is provided in [Annex 6](#).

3.1.2. FESCO

FESCO Transport Group is one of the largest transport and logistics companies in Russia with assets in the port, railway and integrated logistics business. It is the leader in container transportations through the Russian Far East on foreign trade sea lines to/from Asia, on short sea lines and by rail, and the largest port container operator in the Far East region. The Group owns Vladivostok Commercial Sea Port PJSC and operates container terminal complexes in Novosibirsk, Vladivostok, Khabarovsk and Tomsk. FESCO's fleet includes 37 transport vessels.

The Group has companies, representative offices and agents in Belarus, Turkey, Uzbekistan, Kazakhstan, Italy, China, Japan, South Korea, Thailand, Singapore, Malaysia, Indonesia, India, Vietnam and the Philippines.

The group's main company is Far East Maritime Shipping Company PJSC (TIN 2540047110, under UK and Ukrainian sanctions).

Until November 2023, the main shareholders of the group were Russian businessmen **Mikhail Rabinovich, Ziyavudin Magomedov, and Andrei Severilov**. In November 2023, the President of the Russian Federation signed a decree on the transfer of shares to the **state corporation Rosatom**. The main purpose of this transfer of assets is to develop the Northern Sea Route, of which Rosatom is the infrastructure operator.

FESCO Group companies are also involved in sanctions circumvention schemes. Previously, they held numerous government contracts for the **Russian Ministry of Defence and Ministry of Internal Affairs, the FSB and shipyards**.

Detailed information and composition of the group is provided in [Annex 7](#).

¹² <https://trcont.com/the-company>

3.2. Transportation of military equipment.

The railway is the main means of rapidly moving large quantities of military equipment. Given the scale of the Russian Federation's losses in the war in Ukraine, as well as the spread of storage sites and military-industrial complex enterprises across a large territory of Russia, it is the railway that ensures regular transportation of military equipment to the areas of combat operations:

- removed from conservation - from storage;
- repaired - from repair companies;
- of the new ones are from the manufacturers' plants.

Russian companies specialising in railway transportation of military equipment):

Oboronlogistika LLC (TIN 7718857267, under sanctions of the US, EU, UK, Canada, Australia, Switzerland, Ukraine) has been operating as part of the Military Construction Complex of the Russian Ministry of Defence since 2015. The main tasks are to ensure that the needs of the Russian Ministry of Defence are met in the field of transportation, storage and production of military and special purpose products. In 2023, the company's vessels transported 2,285,000 tonnes of cargo on the Ust-Luga-Baltic and St. Petersburg-Kaliningrad lines (more than 28,000 railway cars, 21,000 pieces of rolling stock, and 14,000 containers); 3,161,000 tonnes of cargo on the Crimea-Caucasus line (about 330,000 passengers and 176,000 pieces of equipment), with 7,694 flights; and 40,000 tonnes on international lines. Over 47,000 tonnes of cargo were transported by road. The company's partners are the Ministry of Defence, Rosoboronexport, United Aircraft Corporation PJSC, Sukhoi Company PJSC, Roscosmos, Arkhangelsk Commercial Sea Port OJSC, 1470 UMT O JSC, Shipunov Instrumentation Design Bureau JSC, and TsZhT Negabarit.¹³

LLC Military Transportation (TIN 7702826697, under Ukrainian sanctions) - provides railway transportation services for military cargo: it transports air defence systems, tracked and wheeled vehicles, classified cargo and explosives, and military equipment. The company has licences to transport military equipment, explosives and classified cargo across the territory of the Russian Federation and the CIS. It participates in the execution of the state defence order, delivering products of the state defence order to both companies and state customers.¹⁴

¹³ <https://obl.ru/about/>

¹⁴ <https://xn--b1aaiaaapiryajhkq6o.xn--p1ai/railway>



VM Trans Group of Companies LLC (TIN 5406983819, under Ukrainian sanctions) is a transport company that transports military equipment by rail, including military equipment, and offers rail transportation of explosives (gunpowder and ammunition). The company has implemented projects to transport military equipment¹⁵ :

¹⁵ <https://kemerovo.wmtrans.ru/projects/>



Birtrans LLC (TIN 7721231416) is a transport company specialising in the transportation of general cargo, heavy cargo, oversized and bulky cargo by rail and road throughout Russia and abroad. The company also transports military equipment: APCs, armoured personnel carriers, tanks and other military products, and often receives orders for the relocation of military equipment.¹⁶ Company's photo gallery:



For more information on Russian companies engaged in the transportation of military and special equipment by rail, see [Annex 8](#).

¹⁶ <https://www.birtrans.msk.ru/articles/transportation-of-military-equipment.php>

3.3. Russian railways in the temporarily occupied territories of Ukraine

At the end of 2023, the Russian authorities announced the construction of a new railway line in the occupied territories of Ukraine to connect Rostov-on-Don with the annexed Crimea¹⁷. Prior to that, Russia's railway connection with the occupied Crimea was via the Crimean Bridge. According to the project of building a new railway line, it will run from Yakymivka (a village in Zaporizhzhya region) to Rostov via Berdyansk and Mariupol¹⁸. Currently, Russian troops are supplied by rail along the town of Polohy in the direction of Orehiv, through Kamysh-Zorya to Volnovakha, which makes it vulnerable due to its proximity to the front line.

The new construction is likely also due to the vulnerability of the Krymsky Bridge. Previously, effective attacks by the Ukrainian Defence Forces on the Crimean bridge have already disrupted railway traffic on the bridge, which is the main way to supply the Russian armed forces in Crimea. The suspension of railway traffic then also led to fuel shortages on the peninsula. In addition, the Ukrainian bridgehead on the left bank of the Dnipro River near the village of Krynky creates logistical problems for the supply of the Russian armed forces in the area of Oleshky and Hola Prystan near Kherson - the main supply route from Melitopol and Nova Kakhovka is under constant artillery shelling and attacks by UAVs of the Ukrainian Defence Forces. An alternative supply route from Crimea would be through Armyansk and Kalanchak, which would put additional strain on the logistics infrastructure supplying the peninsula.

Putin calls railway communication in the occupied regions of Ukraine one of Russia's priorities¹⁹. In 2023, the Russian authorities created an enterprise to unite the railways of the occupied Donetsk and Luhansk regions and the territories of Zaporizhzhia and Kherson regions - the Federal State Unitary Enterprise "Railway of Novorossia"^{20 21}. This enterprise is part of the structure of the Transboundary Concern "Donbas Railways", which actively cooperates with the Russian freight railway company Rubin LLC (TIN 6162081340), as evidenced by numerous court disputes between them^{22 23}.

In addition, in order to develop railway communication, including for the delivery of military equipment, equipment and personnel of the Russian Federation's troops, state unitary enterprises were also established in the occupied territories of Ukraine in the so-called LPR and DPR: Luhansk Railway and Donetsk Railway.

A similar enterprise has been operating in the occupied Crimea since 2015 - the Federal State Unitary Enterprise "Crimean Railway". Later, in 2019, **Mikhail Rabinovich** (TIN 771807553584²⁴), a shareholder of Loko-Bank and then co-owner of the Fesco transport group described above, began to manage the railway system of the occupied Crimea through his

¹⁷ <https://ria.ru/20231106/doroga-1907661796.html>

¹⁸ <https://www.pnp.ru/economics/mezhdu-rostovom-i-krymom-nachali-stroit-zheleznuyu-dorogu.html>

¹⁹ <https://dan-news.ru/russia/putin-nazval-vosstanovlenie-zheleznih-dorog-v-novyh-regionah-odnim-iz/>

²⁰ <https://www.interfax-russia.ru/south-and-north-caucasus/main/v-rossii-sozhdut-predpriyatie-kotoroe-obedinit-zheleznye-dorogi-dnr-lnr-zaporozhskoy-i-hersonskoy-oblastey>

²¹ [https://rostransnadzor.gov.ru/storage/%D0%AE%D0%B6%D0%BD%D0%BE%D0%B5%20%D0%A3%D0%93%D0%96%D0%94%D0%9D%20%D0%A0%D0%BE%D1%81%D1%82%D1%80%D0%B0%D0%BD%D1%81%D0%BD%D0%B0%D0%B4%D0%B7%D0%BE%D1%80%D0%B0/ZheleznodorozhnikdDon6-2%20\(1\).pdf](https://rostransnadzor.gov.ru/storage/%D0%AE%D0%B6%D0%BD%D0%BE%D0%B5%20%D0%A3%D0%93%D0%96%D0%94%D0%9D%20%D0%A0%D0%BE%D1%81%D1%82%D1%80%D0%B0%D0%BD%D1%81%D0%BD%D0%B0%D0%B4%D0%B7%D0%BE%D1%80%D0%B0/ZheleznodorozhnikdDon6-2%20(1).pdf)

²² <https://companium.ru/id/1229300166798/legal-cases>

²³ <https://dnrailway.ru/struktura-gp-dzhd/>

²⁴ <https://sanctions.nazk.gov.ua/en/sanction-person/6223/>

transport company Grand Service Express, which is also linked to Yuri Kovalchuk (TIN 780105029790, under sanctions in all countries of the sanctions coalition). After a break, the company resumed selling train tickets to Crimea from Moscow in August 2023²⁵. Grand Service Express also has close ties to Russian Railways through a number of share sale deals²⁶. Rabinovich also owns the transport logistics company Transklassservice JSC (TIN 7717568287, under Ukrainian sanctions) and a number of other companies specialising in the supply of high-tech equipment for railway transport²⁷. **Detailed information on Mykhailo Rabinovych and his related entities and individuals is provided in [Annex 9](#).**

Detailed information on the companies involved in the development and maintenance of railway infrastructure in the temporarily occupied territories of Ukraine is provided in [Annex 10](#).

3.4. Russian-Iranian railway construction cooperation

In May 2023, Russia and Iran agreed to build a railway to develop the North-South international transport corridor. On 17.05.2023, a relevant intergovernmental agreement was signed on cooperation in financing the design, construction and supply of goods and services for the construction of the Rasht-Astara railway in Iran to develop transport along the North-South international transport corridor. The Rasht - Astara section is part of the Astara - Rasht - Qazvin transport corridor²⁸. The agreement was developed following a trilateral Russian-Azerbaijani-Iranian high-level working group held in Baku in September 2022²⁹. In November 2023, an executive contract for the implementation of this project was signed³⁰.

The transfer of funds for the railway construction project will be provided by the Russian bank VTB, which is under sanctions in all countries of the sanctions coalition. The railway construction agreement was signed the day after VTB Bank opened a representative office in Tehran.

The railway will be 162 km long. It will connect Russian ports in the Baltic and northern seas with Iranian ports on the Gulf and Indian Ocean coasts. The railway will connect Russia with the countries of the Caspian Basin, the Gulf, Central, South and Southeast Asia. The Rasht-Astara corridor is a combined rail, road and sea transport route, and given that the final part of this corridor is located in the port of Astara in Iran, its completion will create conditions for transshipment of goods from ship to rail and transport of goods to the south of the country.

Russia is now paying special attention to this corridor due to Western sanctions. In turn, the completion of the corridor is a source of stable income for Iran. Iran will be able to generate an annual income of about \$20 billion from this transit route. In addition, this connection will facilitate further military cooperation between Iran and Russia, including in the field of UAV production.

Construction of the railway is scheduled to begin by March 2024. The expected duration is three years.

²⁵ <https://1prime.ru/transport/20230817/841486852.html>

²⁶ <https://www.agents.media/rzhd-nachala-rabotat-v-krymu-eshhe-v-2019-godu/>

²⁷ <https://rock-nation.ru/uk/loans/rabinovich-mihail-daniilovich-biografiya-vagony-auknulis-rossiiskii.html>

²⁸ **The Astara-Rasht-Kazvin railway is a transport corridor being built as part of the North-South international transport corridor to connect the existing railways of Russia, Azerbaijan and Iran. The Astara (Azerbaijan) - Astara (Iran) section and the Rasht - Kazvin section are in operation.**

²⁹ <https://mintrans.gov.ru/press-center/news/10711>

³⁰ <https://iran-tpprf.ru/o-proekte-zheleznoj-dorogi-resht-astara/>

In 2018, Azerbaijan provided Iran with a concessional loan of \$500 million for the construction of the Astara-Restan section³¹. Russia plans to allocate \$1.5 billion by 2030 to complete the construction of the line. The total cost of the project is €1.6 billion.

3.5. Provision of railway rolling stock, its components and parts.

In addition to the companies directly involved in rail transport, it is important to increase sanctions pressure on the sector that provides the railway with rolling stock, spare parts and components. In the absence of sanctions restrictions, such companies may continue to import products, equipment and raw materials to supply and manufacture products critical to the railway's operation.

The reorientation of export-import operations and the supply of the army and military-industrial complex enterprises put additional strain on the rolling stock of the Russian railway and enterprises engaged in its production, repair and maintenance. This requires the expansion, modernisation and re-equipment of production lines, including as part of import substitution of products from foreign manufacturers that have left the Russian Federation. The imposition of sanctions against carriage building and other enterprises involved in the production, maintenance and repair of rolling stock could significantly slow down these processes by making it more difficult to import the necessary equipment, raw materials and technologies.

Information on the largest Russian railcar building companies is provided in [Annex 11](#).

To increase the pace of railcar building, Russia also uses seized plants in the temporarily occupied territories of Ukraine. In early 2023, it was announced that the Stakhanov Carriage Works in Luhansk region would resume operations with the participation of Uralvagonzavod³².

3.5.1. Transmashholding. Andrey Bokarev.

One of the main manufacturers and suppliers of rolling stock for the Russian railway, the largest Russian machine-building group **Transmashholding**, is currently sanctioned only by Ukraine and the United States and still has affiliated companies in the European Union, through which it gains access to Western technology, equipment and components. The holding's owner, Russian oligarch **Andrey Bokarev**, who is close to Putin and is under sanctions from the United States, United Kingdom, Australia and New Zealand, owns real estate in EU countries that are regularly visited by his family members. He has done business with people close to the Hungarian president.

The holding's enterprises are also involved in work for the Russian military-industrial complex:

- production of parts for infantry fighting vehicles³³;

³¹ <https://www.azernews.az/region/141401.html>

³² <https://rollingstockworld.ru/gruzovye-vagony/stakhanovskij-vagonostroitelnyj-zavod-gotovitsya-k-vozo-bnovleniyu-raboty/>

³³ <https://home.treasury.gov/news/press-releases/jy1731>

- **Kolomna Plant JSC** is the sole supplier of diesel engines for ships of the Russian Ministry of Defence and the Federal Security Service^{34 35};
- **Metrovagonmash JSC** is the developer of the GM-569 chassis, which is used for the Kub and Buk anti-aircraft missile systems of various modifications³⁶, and is involved in the production of tracked vehicles³⁷.

The holding company includes **Luganskteplovoz JSC** (TIN 9403026992), a Ukrainian enterprise in occupied Luhansk that was re-registered under Russian law.

Detailed information on the main companies of Transmashholding and other assets of Bokarev is provided in [Annex 12](#).

3.5.2. RM Rail. Cooperation with Iran.

RM Rail, Russia's largest design centre specialising in the development of freight cars and petrochemical equipment, has been cooperating with the Iranian railway company Railway Transportation Company (RWT) since at least 2017^{38 39}.

In the absence of sanctions, the holding's companies (see [Annex 13](#) for the list of companies) are active in foreign trade, including in 2022-2023:

- exported tanks and railway equipment to Egypt, Turkmenistan and Mongolia;
- imported components, spare parts and equipment for container manufacturing from Turkey and China;
- exported parts for railway cars to Lithuania, Uzbekistan and Latvia.

3.5.3. Import and localisation of production of cassette bearings for railcars.

After the start of the full-scale invasion in 2022, due to the imposition of sanctions and the withdrawal of foreign manufacturers from Russia, many Russian railcar manufacturers experienced a shortage of cassette bearings, which are essential for the production of innovative railcars, which, unlike standard railcars, are designed to carry more cargo. However, in 2023, the railcar industry again increased its railcar production capacity, and Russian officials stated that the problem with **cassette bearings** had been resolved, that Russian manufacturers were increasing their own production and supply of bearings, and that analogues from Uzbekistan and China were allowed to enter the Russian market⁴⁰.

The production and import of bearing products, among other things, has a significant impact on the ability to manufacture and repair military equipment⁴¹.

³⁴ <https://tmholding.ru/products/engines/>

³⁵ https://www.youtube.com/watch?v=XKu7LQon_rA&feature=youtu.be

³⁶ <https://web.archive.org/web/20070525051640/http://www.metrovagonmash.ru:80/english/gm596.htm>

³⁷ <https://www.state.gov/united-states-imposes-additional-sanctions-and-export-controls-on-russia/>

³⁸ <https://www.mintrans.gov.ru/file/416075>

³⁹ <https://www.turkishnews.com/ru/content/2017/03/09/%D1%80%D0%BE%D1%81%D1%81%D0%B8%D0%B9%D1%81%D0%BA%D0%B8%D0%B5-%D0%B2%D0%B0%D0%B3%D0%BE%D0%BD%D1%8B-%D0%B4%D0%B5%D1%80%D0%B6%D0%B0%D1%82-%D0%BF%D1%83%D1%82%D1%8C-%D0%B2-%D0%B8%D1%80%D0%B0%D0%BD/>

⁴⁰ <https://transportrussia.ru/razdely/zheleznodorozhnyj-transport/10409-v-vagonostroenii-menyaetsya-nastroenie.html>

⁴¹ https://csis-website-prod.s3.amazonaws.com/s3fs-public/2023-04/230414_Bergmann_Out_Stock.pdf?VersionId=6jfhCP0c13bbmh9bw4Yy2wbpjNnfeJi8

Currently, two Russian producers have contracts with the Ministry of Industry and Trade of the Russian Federation to fully localise the production of cassette bearings - **EPK-Brenko** and **TEK-KOM Production**⁴². By the end of 2023, the manufacturers report successful sales and a surplus of cassette bearings of their own production⁴³.

The European Bearing Corporation (EPK JSC, TIN 7722242530, under US and Ukrainian sanctions) is a Russian industrial conglomerate specialising in the design, development, production and maintenance of bearings of all groups, including cassette and aircraft bearings, which are actively used in the production of Russian locomotives, aircraft, missile systems and other military equipment.

The actual owner of the EPK Group is Oleg Savchenko, a member of the State Duma of the Russian Federation and a member of the sanctioned United Russia party, which is a member of all countries of the sanctions coalition and openly supports military aggression against Ukraine⁴⁴.

EPK - Brenko Bearing Company LLC (6451421154, under Ukrainian sanctions), a member of the group, is owned by the Dutch company **Amsted Rail - Epk Bearing BV** (34295490).

The Group has production facilities in India, from where it imports bearings and components to Russia.

Detailed information on the Group's activities and composition is provided in [Annex 14](#).

TEK-Com Production LLC (TIN 7703444041, under US sanctions), a Russian manufacturer that has established a process of import substitution for cassette bearings **at the former facilities of Swedish manufacturer SKF in Tver**, is part of TEK-Com Holding LLC (TIN 9729323461). TEK-Com's plant in the Tver region produces railway bearings for freight cars and locomotives (in particular, cassette-type axle bearings for innovative freight cars and G-class axle bearings for locomotives). TEK-Com Group has contract manufacturing facilities in India and China⁴⁵.

3.6. Additional information on cases of sanctions circumvention involving railway infrastructure companies.

In 2023, the German company **BELINTERTRANS GERMANY GMBH**, owned by the **Belarusian Railways**⁴⁶, acted as an intermediary for the supply of Italian raw materials to the Russian manufacturer of military footwear for the Ministry of Defence, **"UNICHEL SHOE FIRM" JSC**.

The presence of companies affiliated with the railway infrastructure of the Russian Federation and its partners registered in the countries of the sanctions coalition makes it much easier to obtain the necessary products and raw materials.

⁴²<https://www.rzd-partner.ru/zhd-transport/comments/import-podderzhal-vypusk-kassetnykh-podshipnikov-dlya-vagonov/>

⁴³<https://vgudok.com/lenta/rzhd-smenili-kassetu-inostrannye-podshipniki-v-rossiyu-ne-edut-otekhestvennaya-produkciya>

⁴⁴<https://novostivolgograda.ru/news/2022-07-06/oleg-savchenko-uchastniki-svo-i-ih-semi-dolzhy-chuvstvovat-zabotu-gosudarstva-1573999>

⁴⁵<https://www.tek-kom.ru/company/production>

⁴⁶<https://www.belint.de/company/>

4. Maritime infrastructure

Russia's maritime infrastructure plays an important role in wartime, as it is a key element in supporting the country's economy and military needs. The presence of a large fleet and numerous ports provides Russia with significant logistical capabilities. Seaports are important hubs for the importation of necessary resources, including military equipment and weapons, which are critical to supporting the war effort.

Russia's maritime infrastructure plays an important role in circumventing sanctions, allowing the supply of electronic components and advanced weapons manufacturing equipment. Among the shipments of critical components identified in Russian military equipment, shipments by sea account for at least 29%.

Russia has formed and is using its own shadow fleet, as well as that of "friendly countries", including Iran. In November 2023, 179 loaded tankers of the Russian shadow fleet left Russian ports, 70% of which were built more than 15 years ago. In October 2023, the shadow fleet was responsible for exporting about 2.3 million barrels of oil per day and 0.8 million barrels of oil products per day⁴⁷.

In addition, Russia is actively investing in the construction of Arctic tankers, which will significantly increase Russia's logistics capabilities and contribute to the growth of oil and gas revenues.

The use of maritime infrastructure allows for the diversification of trade routes and reduces dependence on land and air routes, which can be more vulnerable to international restrictions.

All of this allows Russia to circumvent international sanctions and ensure a constant flow of necessary goods and resources to fuel its military machine in Ukraine.

4.1 Transport of weapons by sea

There have been several cases of Russia transporting its military cargo by sea, in violation of international conventions and endangering civilian vessels in the region.

4.1.1 Defence logistics. Transportation of military cargo by the Sparta IV.

Sparta IV⁴⁸ - a Russian-flagged bulk carrier used to transport military cargo through the Bosphorus Strait in violation of the Montreux Convention. The ownership structure of the vessel includes Russian defence companies under sanctions and linked to prominent Russian politicians. The owner of the SPARTA IV is **Oboronlogistika LLC** (TIN 7718857267; activities described above). A video of SPARTA IV loading military products is posted on Oboronlogistika's website.

⁴⁷ https://kse.ua/wp-content/uploads/2024/01/ROT_DEC.pdf

⁴⁸ <https://rusi.org/explore-our-research/publications/commentary/greyzone-lawfare-russia-and-voyages-sparta-iv>

SPARTA IV is directly operated and managed by Novorossiysk-based **SK-Yug LLC** (TIN 9705070317), a subsidiary of Oboronlogistics. The company specialises in providing comprehensive freight forwarding services, including stevedoring, cargo handling and storage, and customs clearance. SK-Yug LLC is subject to sanctions imposed by the UK, Ukraine and the US for delivering sea freight on behalf of the Russian Ministry of Defence.

Another subsidiary of Oboronlogistika, **OBL-Shipping LLC** (TIN 9705070412), is the technical manager of SPARTA IV. One of the former shareholders of OBL-Shipping was "**Main Directorate for the Arrangement of Troops**" JSC (TIN 7703702341), whose CEO was **Ivanov Timur Vadimovich** (sanctioned in all countries of the sanctions coalition), Deputy Minister of Defence of Russia.

Another Oboronlogistika vessel, the **Pizhma**, which is subject to US sanctions, is suspected of tampering with the AIS (automatic identification system used in shipping), which may indicate that the vessel is being used to transport military cargo.

In particular, according to AIS data, the Pizhma sailed from Novorossiysk to Alexandria, Egypt, between 31 May and 7 June 2023⁴⁹. On 9 June, the vessel left Alexandria and returned to Novorossiysk by 15 June. However, satellite imagery of the Novorossiysk naval base shows that the Pizhma was loaded with unknown cargo in Novorossiysk between 8 and 11 June, when AIS data showed the vessel to be in Egypt.

4.1.2 Transportation of Shahed-136 UAVs from Iran.

According to the Defence Intelligence of Ukraine, Astrakhan, along with Makhachkala, is one of the key points of reception for sea cargo from Iran, including Shahed-136 UAVs or at least components for their assembly. They arrive there in batches in a disassembled state.

Delivery of Shahed-136 UAVs from Iran

Regular deliveries of Shahed 136 UAVs from Iran to Russia take place across the Caspian Sea. From Tehran, the drones are delivered to the Iranian port of Amirabad, from where they are shipped to Makhachkala by sea. Then, the drones and launchers are transported by air and land to launching sites near the borders of Ukraine.

According to the available information, the following Russian vessels of the Caspian Flotilla of the Russian Federation can be used for the delivery of military cargo: **Baltiyskiy 111** (IMO:7612448); **Omskiy 103** (IMO:8889385); **Skif V** (IMO:8858087); **Musa Jalil** (IMO:8846814); **Begey** (IMO:8943210).

All of these vessels are on the list of vessels that have been discharged in the port of **Astrakhan**.

The Iranian ports of ANZALI and AMIRABAD were often mentioned as being used to supply drones to Russia via the Caspian Sea.

In addition, the bulk carrier **GIVING** (IMO: 9159402) could also deliver Shahed-136 UAVs from a Syrian factory in the port of Novorossiysk.

Supply of components for Shahed-136 UAVs from Iran

⁴⁹<https://www.csis.org/analysis/wolf-ships-clothing-russias-militarization-civilian-vessels-black-sea>

According to the Defence Intelligence of Ukraine, after the first contract for the supply of Shahed UAVs from Iran, Russia was able to establish its own production, which is already operating in the Alabuga SEZ⁵⁰.

The equipment and components for the new Russian production of these UAVs are also shipped across the Caspian Sea: from Iranian ports to the Russian port of **Astrakhan**, and then delivered to the Alabuga SEZ by rail. The port of Astrakhan is adapted for unloading bulky cargo and has all the facilities necessary to transport the received cargo by rail. The terminals of the port of Astrakhan are served by the railway station of the **Trusovo-Privolzhskaya Railway**, from which a railway line is connected to the port, which in turn is connected to the berths. The Russian container railway operator TransContainer PJSC may be involved in the railway logistics of the new Russian-made Shahed-136 barrage UAVs, as mentioned [above](#).

Shahed-136 UAVs and their components can be transported from Iran to Russia via the Caspian Sea by vessels of **the Iranian state-owned company Islamic Republic Of Iran Shipping Lines**. Since the beginning of 2023, this company has been responsible for approximately 30% of sea traffic from Iran to the Russian port of Astrakhan. According to available information, the company sent 300 "special containers" with unknown goods to Russia⁵¹. The Islamic Republic Of Iran Shipping Lines is under US sanctions in connection with activities that support Iran's military and nuclear programmes.

4.2 Seaports

Russian seaports and marine terminal operators play an important role in the logistics chains that ensure the delivery of sanctioned goods and military products to Russia. They also ensure the export of goods subject to international sanctions. These ports are key hubs for the export of Russian oil, metals, and other goods that are essential to the Russian economy.

Russia's seaports are located in key geographical locations and provide access to international shipping routes. These ports are equipped with the necessary infrastructure to handle large volumes of cargo, including specialised equipment for heavy and oversized cargo. They also provide important logistics services, such as warehousing, sorting and packaging of goods.

As of the end of 2023, the register of Russian seaports included 63 ports, including ports in the temporarily occupied territories of Ukraine⁵². The largest seaports in Russia are Novorossiysk, Ust-Luga, Port Vostochny, Primorsk, Bolshoy Port, St. Petersburg, Murmansk, Port Caucasus, Vanino, Vladivostok, Taman, Tuapse, Nakhodka.

These and other ports are actively used to circumvent sanctions and to supply weapons.

For example, the port of **Vladivostok** was used by **SFT LLC** to supply machine tools manufactured by Dn Solutions (Doosan Machine Tools) and Hyundai Wia from South Korea and China (Hong Kong). The machines of this manufacturer were used to expand the production capacity of the Zala Aero Group, which is a manufacturer of Russian Lancet and Zala UAVs used by Russia in the war against Ukraine.

⁵⁰ <https://www.rbc.ua/rus/news/vadim-skibitskiy-rosiyan-e-motivatsiya-voyuvati-1705266418.html>

⁵¹ [https://www.thedrive.com/the-war-zone/russia-getting-iranian-attack-drones-would-be-a-very-big-dea](https://www.thedrive.com/the-war-zone/russia-getting-iranian-attack-drones-would-be-a-very-big-deal)

⁵² <https://iz.ru/1491798/2023-03-31/mariupol-i-berdiansk-vkliucheny-v-reestr-morskikh-portov-rossii>

Astrakhan, along with Makhachkala, are among the key points of entry for maritime cargo from Iran, including Shahed-136 kamikaze drones and components for their assembly, as described [above](#).

In 2023, a machine manufactured by Spinner was delivered from Turkey through the Russian port of **Tuapse** in the interests of **Serov Mechanical Plant JSC**, a Russian military-industrial enterprise that manufactures artillery shells and their casings.

Russia also uses ports in the temporarily occupied territories of Ukraine to export Ukrainian stolen grain and metal and to supply military equipment to the frontline.

In addition, marine terminal operators play an important role in the operations of seaports. They are responsible for the efficient handling and storage of cargo, organising ship traffic and providing logistics services. This helps to increase port productivity and reduce cargo handling time.

Despite the important role of seaports and marine terminal operators in ensuring the import and export chains of sanctioned goods, most of them are still not under sanctions.

For more information on seaports, marine terminal operators and their activities, see [Annex 15](#).

5. Conclusions and recommendations

Russia's logistics infrastructure plays a crucial role in maintaining and developing Russia's aggressive war against Ukraine. Its efficiency and reliability directly affect Russia's ability to conduct military operations on the territory of Ukraine. In order to deter Russian military aggression and reduce its military capabilities, targeted measures should be taken to limit Russia's logistical capabilities. These measures should include:

1. Imposition of sanctions on key Russian legal entities and individuals involved in logistics activities, including airport, railway, seaport operators, handling companies and other logistics organisations.
2. Restrictions on Russian companies' access to international transport networks and services.
3. Termination of international cooperation with Russian infrastructure companies. Withdrawal from joint ventures and projects. Imposing a ban on servicing and financing such projects.
4. Imposing sanctions on companies that supply equipment and technologies that can be used in the logistics sector.
5. Imposing sanctions on all companies found to be facilitating the circumvention of sanctions prohibitions, including those supplying goods and services to circumvent international restrictions.
6. Continuous monitoring of compliance with sanctions and export restrictions to ensure their effectiveness.
7. A ban on insurance and leasing of vehicles for Russian companies, as well as for those companies that supply sanctioned goods to Russia.