## TRANSPORT ASSETS



Nornickel owns a modern transport infrastructure capable of handling most challenging freight logistics tasks and ensuring continuity and sustainability of operations of Group enterprises.

Nornickel's transport and logistics assets cover the full range of transport and freight forwarding services.

## **Asset summary:**



 Arc7 Arctic fleet (five dry cargo vessels and one tanker), two port icebreakers (Dudinka and Avraami Zavenyagin)



 627 vessels of the river fleet (198 self-propelled and 429 towed vessels), including the active core fleet of 425 vessels (129 selfpropelled and 296 towed vessels)



 rail car and locomotive fleet – 118 container flatcars, two shunting vehicle, one shunting tractor, and one 2M62 diesel locomotive



 aircraft fleet – 20 Mi-8 helicopters, 10 planes, and Norilsk Airport, ensuring smooth air connectivity for the Norilsk Industrial District



Nornickel has a unique Arctic fleet comprising five dry cargo vessels and one Yenisei heavy ice-class tanker (Arc7 as per the classification of the Russian Maritime Register of Shipping). The vessels are capable of breaking through Arctic ice up to 1.5 m thick without icebreaker support.

Nornickel's dry cargo fleet provides year-round freight shipping services between Dudinka, Murmansk, Arkhangelsk, Rotterdam, and Hamburg sea ports while also serving other destinations. In 2021, 70 voyages were made from Dudinka (2020: 66), including two direct voyages to European ports (2020: 9).

In 2021, the Company also shipped liquid cargo, including by its own tanker Yenisei, including export supplies of gas condensate from the Pelyatkinskoye field to European ports, oil product deliveries to the Norilsk Industrial District, and commercial voyages to other destinations

The Polar Transport Division and **Dudinka port** are the key industrial facilities of the city port of Dudinka, accessible by both sea and river vessels.

Located in the Far North, the Dudinka port is the world's only port that gets flooded every year during the spring thaw. From November to May, its water area and the Yenisei River freeze over. At this period, the Dudinka port handles only sea vessels using icebreakers to de-ice the berths and provide support during manoeuvring and mooring operations. In May and June, during the flooding, the service is suspended to be resumed for sea and river vessels when ice flows pass and the water level goes down.

The Dudinka port transships cargoes destined for the Taimyr Peninsula, including goods for local residents (except for perishables and mail). In summer, river vessels deliver equipment and materials (sand, round timber, clinker, etc.) for process needs from Krasnoyarsk and Lesosibirsk. Sulphur shipments are directed both via the Yenisei River and via sea routes. Converter matte and metal products are shipped by sea from Dudinka throughout the year.

The Polar Transport Division operates its own fleet of port service vessels which includes a river-class icebreaker, towboats, motorboats, a bunker barge, and a floating crane. To reduce its environmental footprint, the division runs programmes to cut fuel consumption and prevent pollution of the Dudinka and Yenisei Rivers, while also investing in bioresource management (e.g., releasing fry).

The year-round ice-free sea port of Murmansk is home to Nornickel's **Murmansk Transport Division.** 

The Murmansk Transport Division's key functions:

- · Shipment of Nornickel's finished metal products to European ports
- Receipt of converter matte from Dudinka and its shipment by rail to Kola MMC
- Shipment of empty containers, equipment and materials to Dudinka

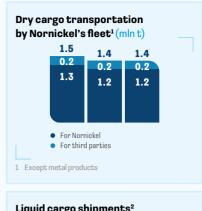
In addition to sea transportation, the Murmansk Transport Division is focused on freight forwarding, transshipment and storage of cargoes, and rail transportation between Murmansk and Monchegorsk.

The division's shipping department complies with international maritime conventions by ensuring environmentally friendly and safe sea transportation, with the vessels undergoing regular scheduled repairs and safety inspections. In addition, in 2019, the Murmansk Transport Division's Information Security Management System was certified to ISO/IEC 27001:2013.

The Arkhangelsk Transport Division is based in Arkhangelsk. The division provides smooth year-round transshipment services for Nornickel's cargo via the Arkhangelsk sea port, which is conveniently linked to other Russian and foreign regions by road, air and rail

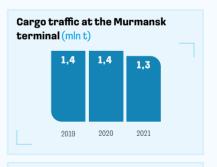
## The Krasnoyarsk Transport Division

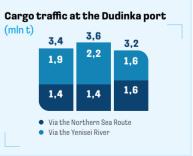
is based in Krasnoyarsk. The division is responsible for transportation and forwarding of Nornickel's cargoes and for carriage of precious metal concentrates.





THE VESSELS ARE **CAPABLE OF BREAKING** THROUGH ARCTIC ICE UP TO 1.5 M THICK WITHOUT **ICEBREAKER SUPPORT.** 





In 2019, **Nornickel-YRSC** was established to coordinate operations of the Krasnoyarsk port and Yenisei River Shipping Company, which operate a strictly seasonal service due to the Yenisei River getting frozen in winter. When ice flows pass, the Group uses the ports to transship Nornickel's cargoes to Dudinka, including crushed stone, clinker, materials, equipment, and socially significant cargoes (as part of the Northern Deliveries programme).

Yenisei River Shipping Company carries the bulk of the Croup's and third-party cargoes shipped on the Yenisei River. The company owns over 600 river vessels, including self-propelled and towed ones. The fleet operates in the Yenisei, Angara, Nizhnyaya Tunguska and Podkamennaya Tunguska Rivers, and their largest tributaries.

Krasnoyarsk River Port is one of the largest ports in the Yenisei basin. The port transships cargoes delivered by road, rail and water, provides storage services, and transports cargoes using private railway lines. The port has three operating areas – Yenisei, Zlobino and Peschanka.

Lesosibirsk Port is located 40 km downstream of the point of confluence of the Angara and Yenisei Rivers and downstream of the hard-to-navigate rapids. This secures the delivery of Nornickel's cargoes at times of low water on the Yenisei and the use of fully loaded ships. The port's unique benefits:

- The only dedicated port on the Yenisei River capable of handling explosives with a storage option
- Offers year-round service (rail-to-road and road-to-rail cargo transshipment services in between navigation periods)
- Has access to the federal Baikal Highway (M53) via the Krasnoyarsk-Yeniseisk Highway
- A railway to Achinsk links Lesosibirsk to the Trans-Siberian Railway

The Bystrinsky Transport Division was established in 2017 to support shipments of finished products from Bystrinsky COK and handle its inventories. The Bystrinsky Transport Division provides maintenance services for the 227-km Naryn (Borzya)—Cazimursky Zavod private railway line built through a public-private partnership.

The Company's transport and logistics subsidiaries and units are fully environmentally permitted and compliant with applicable environmental regulations, namely:

- Air pollutant emissions from mobile sources do not exceed the maximum allowable levels
- Marine fuels are purchased from suppliers that have all required documents confirming fuel quality.
  The quality of fuel is verified by an independent laboratory
- Onboard wastewater treatment plants are subject to annual certification to prevent pollution and contamination of water bodies and marine environment
- Oily water is transferred to specialist contractors at sea ports

## **Aviation assets**



Norilsk Avia serves the transport needs of local communities in the Norilsk and Taimyrsky Dolgano-Nenetsky Districts of the Krasnoyarsk Region. The air carrier has its own fleet of 20 helicopters and provides air services related to the operations of the Norilsk Nickel Group, emergency medical flights, search and rescue operations, and local passenger traffic.

NordStar Airlines is an aviation project that has been steadily growing since its establishment in 2008. At the beginning of 2021, the airline's fleet consisted of ten Boeing 737 and five ATR 42-500 aircraft. With the five ATR 42-500 aircraft retired between May and July 2021, the airline's fleet was comprised of ten aircraft at the end of 2021. NordStar Airlines is a major air carrier in the Siberian Federal District and

the anchor airline of Norilsk Airport. The air carrier's annual passenger traffic is in excess of one million people. The airline's current route network covers over 30 cities in Russia and the CIS.

Norilsk Airport is located 36 km away from Norilsk. It plays an essential role in ensuring the region's transport accessibility as it connects the north of the Krasnoyarsk Region with other parts of Russia. In 2020, the Company finished renovating the airfield complex and airport infrastructure through a public-private partnership. The renovated Norilsk Airport now meets all current regulatory requirements, offering higher quality and safety standards and ensuring reliable and consistent passenger and freight transport services.