



Ice-breaking platform supply vessel Yevgeny Primakov

In January 2018 Sovcomflot put into operation the standby vessel with ice class Icebreaker ICE-15 Yevgeny Primakov, the fourth in the series of multifunctional icebreaking vessels built to order for SCF Group to service offshore platforms of the Sakhalin-2 project (the Sea of Okhotsk). Today these vessels are among the best in their class. They were designed by taking into account the difficult navigation and ice conditions in the Sea of Okhotsk.

In 2014 Sovcomflot Group and Sakhalin Energy entered into time charter agreements providing for operation of all four vessels under the project during 20 years. In total, seven SCF's multifunctional icebreaking support and supply vessels are employed in the Sakhalin-2 project. Sovcomflot Group is the world's leader by the number of such vessels.

In February 2019 Offshore Support Journal, an international trade publication, named Yevgeny Primakov the winner of the Support Vessel of the Year category.



Fifth-generation Atlanticmax LNG carriers

In November 2018 Sovcomflot Group entered into a credit facility agreement with a consortium of three European banks to finance the construction of a fifth-generation Atlanticmax LNG carrier, which will be operated under a long-term contract with Total. The new vessel will have a capacity of 174,000 cubic metres of LNG and will feature an upgraded Mark III Flex cargo system. The vessel will be fitted with two low-speed, dual-fuel X-DF engines. Such a propulsion plant is more reliable and requires less time and resources for planned repairs compared to a dual fuel diesel electric engine (DFDE). This type of gas carrier consumes 30 % less bunkers than fourth-generation gas carriers. A small amount of boil-off gas and a boil-off gas partial re-liquefaction system will enable the charterer to reduce cargo losses during long voyages and waiting time, giving vessels of this type a competitive advantage. In addition, two similar vessels to be employed under time charter agreements with Shell are being built to order for Sovcomflot Group.

3.2.3. Implementation of the shipbuilding programme

In 2018 Sovcomflot Group's shipbuilding programme included 13 vessels of four different types, including those intended for the Sakhalin-2 and Novy Port projects.

During the reporting period, Sovcomflot Group put into operation four new vessels with a total deadweight of about 340 thousand tonnes: a multifunctional icebreaking vessel and three dual-fuel Aframax tankers.

As at 31 December 2018 Sovcomflot Group's order portfolio included nine vessels, with a total deadweight of 858,000 tonnes.

Shipbuilding portfolio of the Group as at 31 December 2018¹

Hull number	Type of vessel	Deadweight, tonnes	Ice class
S922	LNG-fuelled Aframax tanker	114,000	1B
S923	LNG-fuelled Aframax tanker	114,000	1B
S924	LNG-fuelled Aframax tanker	114,000	1B
2245	MR Arctic shuttle tanker	42,000	Arc7
8006	Atlanticmax LNG carrier	82,000	-
8007	Atlanticmax LNG carrier	82,000	-
8008	Atlanticmax LNG carrier	82,000	-
131110	LNG-fuelled Aframax tanker	114,000	1B
131120	LNG-fuelled Aframax tanker	114,000	1B
Total		858,000	

3.3. INNOVATIVE ACTIVITIES AND R&D**3.3.1. Areas of innovative activities**

Sovcomflot is a world leader in developing and implementing innovations in the field of maritime transport. The Groups is actively and consistently improving technologies and equipment, implementing international best practices, improving fleet management and enhancing the scientific potential of employees, including seafarers and land-based specialists.

Sovcomflot Group's innovative activities are carried out in accordance with the requirements and methodological guidelines of the Federal Agency for State Property Management (Rosimushchestvo), the Russian Ministry of Economic Development and the Council for Economic Modernisation and Innovate Development under the President of the Russian Federation. Priority directions for innovative development of the Group are determined in accordance with Decree No. 899 of the President of the Russian Federation dated 7 July 7 2011.

The main areas of innovative activities and scientific, R&D and technological projects of Sovcomflot Group are as follows:

- Developing the shipowner's technical specifications for Aframax tankers with dual-fuel main engines;

- Designing vessels capable of operating in the most challenging winter conditions in the North Atlantic for an extended service life of 25 years (equivalent to a 40-year service life of a vessel operating in other parts of the world's ocean).
- Factoring in new shipbuilding regulations into strength calculations and fatigue characteristics of hull structures.
- Conducting research, calculations and experiments to select optimal parameters for ship power plants in terms of energy efficiency and environmental impact reduction, as well as to select optimal hull shapes and parameters for propeller-rudder systems.

Sovcomflot stimulates professional development among its staff and encourages employees to pursue additional education in order to gain in-depth knowledge of modern technologies used in fleet operations. Our engineering staff have high scientific potentials: currently, 17 seafarers, who completed post-graduate studies and received the title of Candidate of Technical Sciences or are preparing to defend their theses, work in the Company's fleet.

1. Hulls 131110 and 131120 were ordered by a VEB-Leasing Group company and are to be subsequently transferred to SCF Group for operation after completion of construction.