

Port News

SEMI-ANNUAL
REPORT '2016



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PORT SERVICE

60%

scope of repair
dredging to be
performed by
Rosmorport

15% — forecasted
fall of Russia's
bunker market in 2016



32 mln t — growth of Russian
ports' capacity in 2016





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Legislation review 6

Trust but verify 9

Events • Port service 10

New appointments-2016 12

Slowly but surely 17

Vostochny Port P3 completion is just around the corner 21

ZPMC: Nearer, still nearer to Russia 23

Unified Information System will be deployed over the Arctic 24

Events • Fleet 26

Denis Samsikov, COO, Okskaya Shipyard:
 «We offer bunker tankers that will meet the highest standards» 29

Who is half ice over? 32

Rosmorport expands its dredging fleet 35

Unusual logistics 37



Founder and publisher: IAA "PortNews". Address for correspondence: Zvenigorodskaya St., 1, St. Petersburg, 191119, Russia. The report prepared by: CEO — Elena Snitko, snitko@portnews.ru; Development Director — Nadezhda Malysheva, mn@portnews.ru; Chief Editor — Vitaly Chernov, news@portnews.ru; Journalist — Margarita Babkova, editor@portnews.ru; Analyst — Marina Borisenko, av@portnews.ru; Design by Sergei Yakovlev. For advertising please call: + 7(812) 570-78-02, 570-78-03. Internet address: www.portnews.ru. St. Petersburg, 2016. Editorial board is not responsible for the content of commercial advertisements. When citing or reprinting our materials reference to our agency is required.



Daffid Evans: «We see the enthusiasm and the desire to launch new projects in Russia»39

NOx emissions as a headache for shipowners 40

Will ethane ever become a standard?42

Slow development of LNG projects 44

Bunkering requires state expertise 46

Bunkering of Sovcomflot’s vessels is carried out through cooperation with reliable suppliers..... 48

Events • Bunkering50

Russia’s bunker market shrinks52

Bunker thaw54

Market chooses eco-friendly fuels.....56

Bunker suppliers address main agenda.....59

Bunkering Company: success in the North 61

Gazpromneft Marine Bunker gains ground in the Russian market63

And the Ust-Luga Cup goes to.....66





Legislation review

The 6th State Duma will cease its work this year. In the end of their activities the deputies passed a number of bills while some amendments proposed by the business community were rejected.

DURA LEX SED LEX

Bunker market participants are especially concerned about rejection of the bill supposed to call off the requirement on obligatory state environmental expert approval (SEEA) of oil spill response activities plans.

The requirement on obligatory SEEA was set forth by the Federal Law dated December 30, 2012 (No 287-FL) through introduction of amendments into the Federal Law dated November 30, 1995 (No 187-FL) "On continental shelf of the Russian Federation" and the Federal Law dated July 31, 1998 (No 155-FL) "On internal sea, territorial sea and contiguous zone of the Russian Federation".

The bunkering market experts opposed the Federal Law dated December 30, 2012 (No 287-FL) before the Law approval.

According to them, such legislation cannot improve the environment while creating unreasonable and excessive administrative barrier for the majority of market players. In their opinion, such a barrier can contribute to corruption. According to Vladimir Sergeyev, Chairman of the Russian Association of Marine and River Bunker Suppliers, large scale negative impact of the Federal Law dated December 30, 2012 (No 287-FL) has been observed since the middle of 2013. The negative impact includes the large scale corrupt practices while the unreasonable and excessive requirement set forth by the mentioned law overburden most of the bunkering companies amid the crisis situation.

Vladimir Sergeyev said that draft law NO 824042-6 had been anonymously supported by the representatives of the business community including RSPP (Russian Union of Industrialists and Entrepreneurs), bunker suppliers, ship

owners, representatives of oil industry and the Ministry of Economic Development of the Russian Federation.

The concept of the draft law No 824042-6 was considered on September 16, 2015 and was backed by the working group of the RF Marine Board Presidium involving the representatives of the Ministry of Transport and the Ministry of Natural Resources and Environment. Having not supported the exclusion of OSR plans from the list of obligatory SEEA, the Ministry of Natural Resources and Environment acknowledged it reasonable to return to a closed list of activities subject to SEEA as proposed by the draft law 824042-6.

The concept was also supported by the State Duma's High Environment Council on natural resources at its extended meeting held on April 21, 2016.

Vladimir Sergeyev believes the rejection of the bill widely supported at different levels is explained by unfavourable comments of the legal department at RF President's Executive Office.

IAA PortNews thinks that most deputies see the regulation of the bunkering sector as unrelated to the key agenda while loosening of environmental control in this field can generate a negative public opinion inspired by different environmental organizations, hence the rejection of the bill.

Nevertheless, Russian Association of Marine and River Bunker Suppliers is set to bring up this issue to the State Council of Russia in 2016.

The Ministry of Transport has selected a different way. "We are not for cancellation of state environmental expert approval, we suggest a different mechanism for evaluation of emergency rescue readiness—through exercises", explained

Vitaly Klyuev, Director of the Department of State Policy for Maritime and River Transport of Russia's Ministry of Transport. The legislative initiative of the Transport Ministry does not apply to the field covered by the law of 2014—offshore projects, drilling facilities and artificial islands. It deals only with loading/unloading activities within the inner harbours and the territorial sea when it comes to crude oil and petroleum products. The Ministry of Transport suggests evaluating the readiness through exercises. "We want to make sure that the plan involves real and sufficient resources," said the representative of RF Transport Ministry.

This legislative initiative will be considered during the autumn session of the State Duma, perhaps by the deputies of the new parliament, together with the amendments into the Law on Seaports of the Russian Federation.

When speaking about OSR regulation it should be noted that RF Transport Ministry's Order No 19 (dated February 5, 2016) approved the Regulation on functional subsystem for arranging activities on prevention and response to oil spills from ships and sea/river transport facilities at inland water ways. The Order was registered by the Ministry of Justice on May 20, 2016.

FAR EAST PORTS ARE GETTING MORE FREE

RF President Vladimir Putin signed the Federal Law «On the Territories of Priority Development Areas of Social and Economic Development in the Russian Federation» and the Federal Law «On the Free Port of Vladivostok». The Law No 252-FL was published at the official portal for legal information.

Under the law, the porto franco regime is expanded to several municipalities in the Far East (including the territories and water areas of seaports within those municipalities): in the Kamchatka Territory—Petropavlovsk-Kamchatsky municipality, in the Khabarovsk Territory—Vanino municipality, in the Sakhalin Region—Korsakov municipality, in the Chukotka Autonomous District—Pevek municipality.

State Duma passed the draft law on June 24, 2016, the Federation Council approved it on June 29, 2016.

Meanwhile, the Ministry of Transport has developed an extended draft law to apply the free port mechanisms to any port in the Russian Federation. This document has been submitted to the related ministries and agencies for approval.

"I hope by the beginning of the new Duma activities (in autumn 2016.—IAA PortNews) it will be approved by the Government and will be submitted to the law-makers,—Vitaly Klyuev tells about the work on the draft law.—We expect our draft law to provide for a more coherent system of benefits as compared with the existing Law on Free Port Vladivostok. We hope to formalize in legislation the reduced time limits for consideration of urban planning project and state expert approval, simplification of customs procedures in some cases. The new bill is based on key principles followed by the Ministry when planning the development of port infrastructure in the country. They are safety and deregulation of production.

ON MARITIME CLAIMS AND FOREIGN VESSELS

Russian President Vladimir Putin signed the Federal Law dated 03.07.2016 (No 253-FL) "On amendments to Russian legislation to improve the legal regulation of relations pertaining to the limitation of liability for maritime claims and the use of foreign vessels in the internal waters and the territorial sea of the Russian Federation".

State Duma of the Russian Federation approved the bill in the third, final, reading on June 22, 2016. The Federation Council approved it on June 29.

The law aims to adjust Russian legislation to the international legislation. For that purpose the law provides for introduction of amendments into Article 359 of the RF Merchant Shipping Code in the part of increasing the amount of limitation of ship owners and rescuers' liability.

Besides, the law stipulates that border regime regulations are not applicable to foreign-flagged ships carrying tourists for the purpose of visiting areas or ports bordering the entities of the Russian Federation within its Arctic Zone or the Far East Federal District.

LINE SHIPPING GETS REGULATIONS

RF President Vladimir Putin signed draft law No 282-FL "On introduction of amendments into the Merchant Shipping Code of the Russian Federation" and Articles 17 and 19 of the Federal Law "On Seaports of the Russian Federation and on introduction of amendments into certain legislative acts of the Russian Federation".

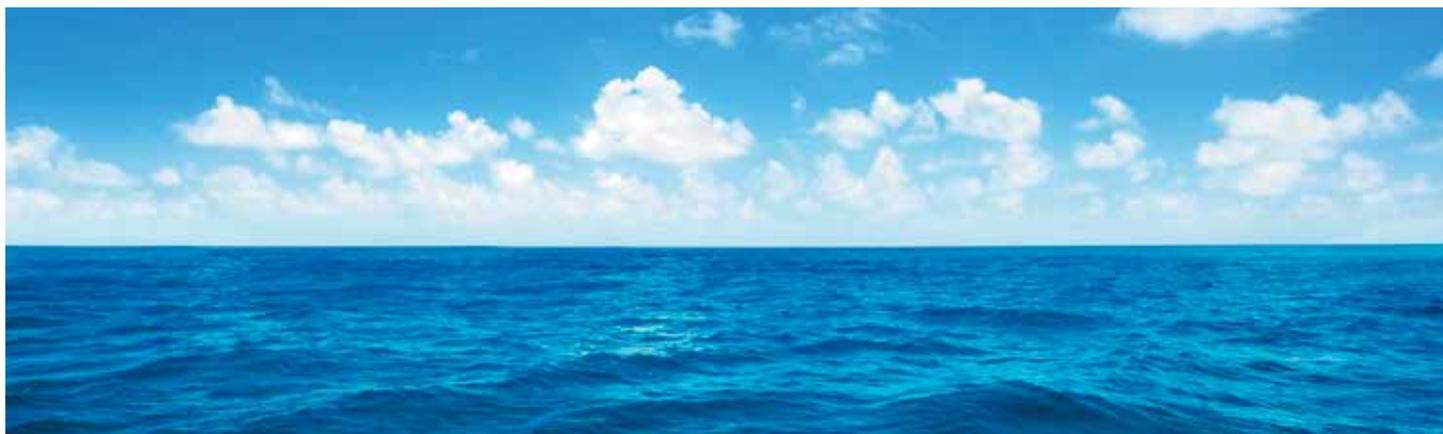
Line shipping earlier had no state legislative framework in Russia. The newly signed document is the first regulatory act creating a legal platform for organisation and functioning of sea lines.

According to the law, a sea line can be registered on the grounds of a decision made by a registration body (Federal Marine and River Transport Agency). Authorization-based procedure for registration of sea lines is conditioned by the need to register inspections confirming the sea line parameters announced by the carriers and compliance with the conditions foreseen for the registration.

The federal law sets forth the minimum period of sea lines registration—for at least 6 months or the period of navigation, which is reasonable due to the need to establish long-term cooperation between the sea line, stevedores, shore authorities, cargo owners, tourist and agency companies.

Besides, operators of sea lines should approve schedules for the entire period of the line operation with a possibility to introduce amendments after three months of the line functioning. Schedules and information on the cost of services should be available at the official websites of the operators.

The document stipulates certain state preferences. According to the law, operators should pay the port charges in full for the entire period of the line functioning, but no more than for 6 month in case of deregistration by the decision of the state registration authority. This will prevent taking advantage of preferences without establishing of an operational sea line.





The rules for registration of sea lines, extension of registration period and deregistration are set forth by the Regulations on Sea Lines approved by the federal executive body in the field of transport.

MORE WATER FOR THE REGIONS

RF President signed the Federal Law “On introduction of amendments into the Code of inland water ways of the Russian Federation and into the Federal Law “On privatization of state and municipal property””.

State Duma of the Russian Federation passed the Federal Law on June 21, 2016; the Federation Council approved it on June 29, 2016.

To improve the efficiency of state regulation in the sphere of inland water transport of the Russian Federation the Federal Law redefines the concept of ‘inland water ways of the Russian Federation’ which are interpreted as the ways for inland water transport defined by the Government of the Russian Federation.

The list of inland water ways includes both federal and regional IWW. The Law sets forth the criteria for classification of inland water ways as federal or regional IWW.

According to the federal law, state authorities of RF entity can co-finance and finance expenditure obligations of the Russian Federation in the part of keeping navigation canals and IWW infrastructure at the federal inland water ways within the limits of RF entity.

Amendments are also introduced into the Code of inland water ways of the Russian Federation related to state registration of vessels (boats and floating facilities being a part of a vessel as well as non-self-propelled vessels without a deck of no more than 12 meters in length are not subject to state registration) when it comes to deregistration of vessels, their classification and certification, as well as the list of ship documents etc.

Amendments into the Federal Law “On privatization of state and municipal property” specify the privatization of river ports’ facilities. Federal property located in river ports can be privatized in case of obligations on their use for servicing passengers and vessels, loading, unloading, acceptance, storage and release of cargoes, cooperation with other means of transport.

Besides, the law sets forth the conditions for preferential right to purchase river port facilities. In case of waiver of a

privilege, a competition is arranged for the privatization of river port facilities.

TRANSHIP ACCORDING TO RULES

Ship-to-ship transshipment of cargo is still regulated mainly by Order No 68 of RF Ministry of Transport.

Amendments introduced into the document are more about technical details. In particular, a location of ship-to-ship transshipment operations should be included into the Port’s Compulsory Regulations. As stipulated, all ship-to-ship transshipment operations are regulated by the Order with a reference to the Port’s Compulsory Regulations.

So, transit vessels calling in Russian ports for any cargo operation can be performed either at the berth or at a dedicated RPK (offshore transshipment facility)

RIVER PRIVATIZATION

The Federal Law dated December 21, 2001 (No 178-FL) “On privatization of state and municipal property” has been amended with introduction of specifications for the privatization of river ports’ facilities.

Hydraulic engineering facilities (including berths), transshipment facilities and other federal property located in the port, excluding facilities not subject to privatization, can be privatized in compliance with specializations in case of obligations on their use for servicing passengers and vessels, loading, unloading, acceptance, storage and release of cargoes, cooperation with other means of transport.

CONTAINER VERIFICATION

In 2014, the Maritime Safety Committee (MSC) of IMO adopted the amendments to SOLAS regulation to require the mandatory verification of the gross mass of packed containers—verified gross mass—(VGM). This requirement entered into force on July 1, 2016.

The verification of the gross mass can be achieved by either of two methods: weighing the packed container; or weighing all packages and cargo items, including the mass of pallets, dunnage and other securing material to be packed in the container and adding the tare mass of the container to the sum of the single masses. There’s no standard form of the document confirming the verified gross mass of the container. The VGM can be specified in the bill of lading or other similar document or in a separate document attached to the bill of lading. Such document can be issued in paper or in electronic form.



Trust but verify

The Maritime Safety Committee (MSC), at its ninety-fourth session in November 2014, adopted the amendments to SOLAS regulation to require the mandatory verification of the gross mass of packed containers. This requirement entered into force on July 1, 2016. Russian Maritime Register of Shipping told IAA PortNews about the new regulation and its implementation.

As of July 20, 2016 RS has issued 267 certificates to organizations verifying the gross mass of packed containers under IMO Resolution MSC.380 (94).

GEOGRAPHICAL FOOTPRINT OF THOSE ORGANIZATIONS IS AS FOLLOWS:

- 41% — North-West region
- 18% — Siberia
- 11% — Russia's South
- 10% — Ural
- 7% — Central region
- 7% — Volga region
- 6% — Far East

Before July 1, 2016, RS used to process 10–15 applications per day. The work is still going on with processing of 5–6 applications per day.

There are two permissible methods for weighing: weighing of the packed container or weighing of the cargo and the mass of pallets, dunnage and other packing and securing materials and adding of tare mass of the container. The calculations are to be made through a method approved by the Register.

The certificates issued by RS show that the second method is applied primarily by shipping companies representing the food industry, car manufacturing, woodworking, metalworking and construction industries as well as tobacco companies.



NCSP GETS THREE NEW HANDLERS

In late April 2016, three electric-powered LH 120 ETG material handlers were put into operation at the Eastern berth of Novorossiysk Commercial Sea Port (NCSP). The

handlers run on rails with a width of 10.5 m. The Liebherr material handlers were manufactured at Kirchdorf an der Iller (Germany) in compliance with specific requirements of NCSP and its Eastern berth specializing in transshipment of loose materials.

Structural modifications of the handlers allow them meet the wind and seismic loads typical for the port of Novorossiysk. The equipment was also adapted to the customer's rail and to temperature range of -35 to +40°C.

Three new LH 120 ETG handlers were purchased under the programme on modernization of NCSP Eastern berth. Throughput of the berth is to be increased almost twice to 11-12 mln t per year. By the end of 2016 the port is to accept three more Liebherr handlers: two LH 150 ETG handlers running on rails and one LH 150 M wheeled handler.



CONTAINER TERMINAL SAINT-PETERSBURG INVESTS IN DEVELOPMENT

In the first half of 2016, JSC "Container Terminal Saint-Petersburg" (CTSP, member of

UCL Holding) invested RUB 313.5 mln in development programme.

Greater part of the investments (RUB 230.6 mln) was spent on acquisition of the cargo handling and other equipment.

In the reporting period agreement was signed on the supply of two new Liebherr mobile harbor cranes LHM-550, including spreaders.

Besides, CTSP has expanded its motor fleet and renewed the tools.

RUR 77,6 million were spent on development of the port infrastructure, construction and repairs of engineering and cargo handling facilities, including installation of a metal gate to prevent unauthorized access to the terminal by rail and an agreement on fencing the fuel storage tanks of the modular diesel boiler plant. Besides, the company signed an agreement on installation of a fuel consumption control system on the vehicles involved in operations and the fuel station to ensure cost efficiency of operations.

Over RUB 5.3 mln were spent on upgrading IT infrastructure. To increase information security the terminal has invested into creation of an emergency server room.



NEW CRANES FOR MALY PORT

In mid-May 2016, two portal cranes manufactured by SMM CJSC were put into operation at the terminal of stevedoring company Maly Port (Primorsky Territory) run by SUEK JSC.

The cranes of Aist series have a handling radius of 36 meters and cargo capacity of 18 t in grab mode and up to 40 t in hook mode. Specific feature of the cranes is the width of their portal-type

arrangements – 15.3 m (standard design – 10.5 m).

SMM CJSC develops and manufactures cargo lifting equipment which operates in ports and terminals of Russia, Ukraine, Georgia, Kazakhstan, Uzbekistan and EU countries.

KONECRANES

KONECRANES BUYS INTO TEREX

In the middle of May 2016, Terex Corporation agreed with Konecranes Plc to mutually terminate the Business Combination Agreement ("BCA") the companies entered into on August 10, 2015, without payment of a fee by either party.

In connection with the termination of the BCA, Terex signed a definitive agreement to sell its Material Handling and Port Solutions business ("MHPS") to Konecranes for total consideration of approximately \$1.3 billion. The consideration being paid is comprised of \$820 million in cash and 19.6 million newly issued shares of Konecranes. Upon completion of the transaction, Terex will own approximately 25% of the outstanding shares of Konecranes and have the right to nominate two directors. The transaction, which is subject to customary regulatory approvals and the approval of the shareholders of Konecranes, is expected to close in January 2017.

The agreement provides Terex with the ability to continue to pursue discussions with Zoomlion Heavy Industries Science & Technology Co., Ltd. ("Zoomlion"). Terex has the right to terminate the agreement on or before May 31, 2016 for a fee of \$37 million if Terex and Zoomlion agree on a sale of Terex as a whole.



NEW TECHNOLOGIES AT UST-LUGA CONTAINER TERMINAL

In late June 2016, Ust-Luga Container Terminal (Global Ports Group) became the first Russian container terminal to introduce a technology of

electronic approval of requests for admission to the border control zone. This unique project substantially simplifies the documents clearance procedure.

The new procedure allows customers to remotely obtain passes to the border control zone. This will eliminate the need for visits to the authorities' offices at ULCT's premises before bringing a container to/from the terminal and will therefore save customers a lot of time.

The new technology, allows customers to send the required documents electronically via the terminal's information system, with staff of the authorities approving requests online.

This technology solution was developed by LLC ROLIS, a Global Ports company, which focuses on terminal management information systems. The technology was implemented as part of Global Ports' broader program of migrating to an electronic document exchange system.



NEW CONVEYORS IN UST-LUGA

In the middle of March, 2016, Multipurpose Reloading Complex LLC (MRC) in the port of Ust-Luga (Leningrad region) put into experimental

operation 9 mobile wheel-mounted conveyors LK-2512 at its terminal. Conveyor line with capacity of 1,000 tonnes per hour and length of 225 meters will be used for transportation of power generating coal – main cargo of MRC – from the rear part of the terminal

to the berths.

Automatic launch of conveyors is made by single control panel. The opportunity to stop the whole line of equipment in case of emergency allows for ensuring high-grade safety of production.

Conveyor line was purchased by MRC within the programme on modernization of production capacities. New equipment will let the company intensify cargo handling, reduce delays while transporting the cargoes along the territory of the terminal and make the technological process more efficient.



MURMANSK FISHING PORT GETS NEW EQUIPMENT

In the end of May 2016, for the first time in a 6-year period, Murmansk Fishing Port acquired four new electric fork trucks manufactured by CROWN (USA).

According to Daniil Poleshchuk, First Deputy Director General of Murmansk Fishing Port JSC, the company's priority is

modernization of its refrigerating equipment and acquisition of powerful warehouse machinery for diversification of the port's activities. Therefore, it is necessary to purchase three more trucks of this type and larger trucks for handling of containers.

CROWN trucks can lift 1,600 kg each. Lift height – 2.8 m (three-point trucks) and 4.8 m (four-point trucks). They run on rechargeable accumulators. Each truck costs about RUB 2 mln.



NEW SHIPLoader IN MURMANSK

In June 2016, Murmansk Bulk Terminal (100% subsidiary of EuroChem) put into operation new shiploader – Neva-1500 manufactured by Tehnoros and designed for loading of mineral fertilizer onto ships with deadweight from

7,000 to 60,000 tonnes.

Neva-1500 is equipped with a boom featuring a variable angle of slope, telescopic conveyor and carriage-type shuttle long stroke (8 to 28 meters).

For increasing the operational safety, ship loader is equipped with a system that prevents contact with the vessel - pull-wire switches and radar sensors to stop the progress of the machine and prevent a possible collision.

Neva-1500 is the first shiploader with such technical and operational characteristics to be designed and manufactured in Russia.



MURMANSK COMMERCIAL SEAPORT EQUIPPED WITH NEW CRANES

The programme of technical upgrading of Murmansk Commercial Seaport PJSC foresees installation of four new portal cranes in 2016.

Two Vityaz cranes were delivered to the port in the middle of February 2016.

Besides, two Aist cranes are to be placed at the berths of cargo district No 1. Their boom reach is 0 to 32 m, cargo capacity – 18 t in grab mode and up to 32 t in hook mode.

With the Vityaz cranes acquired earlier the port's waterfront of cargo district No 2 will be equipped with state-of-the-art high-capacity cranes (with boom reach of 0 to 40 m they can lift 32 t in grab mode and up to 100 t in hook mode).

Both types of cranes were designed by Saint-Petersburg based company SMM CJSC. Some components of new port equipment are delivered to Murmansk from manufacturers located in different regions of Russia and in other countries and included into a complicated production chain. For example, crane traveling gear comes from Maikop, metal structures – from famous Izhorskiye Zavody in Saint-Petersburg, electrical systems – from Germany.



SEA PORT OF SAINT-PETERSBURG REPLENISHES ITS MOTOR POOL

Within the programme on modernization of equipment 2 rail-mounted cranes MANTSINEN K-200(ES) were delivered to the

berths of OJSC "Sea Port of Saint-Petersburg" (SP SPb, part of UCL Holding). Equipment was purchased for berth-to-ship transshipment of general and bulk cargoes.

Maximum lifting capacity of each crane is 32.8 t, with full boom outreach of 34 meters – 11 t. Operation of crane is performed by electric-hydraulic drives which ensure high level of economic efficiency and environmental safety.

For quick and safe operation MANTSINEN K-200(ES) are equipped by video surveillance system and by hydraulic control cabin on two-section hoisting facility which allows its movement during handling operation for better view of the operator.

Additionally, the company purchased four grabs with capacity of 6 cbm each.

New equipment will allow SP SPb to intensify of handling of cargoes. Cranes are planned to be put into operation upon completion of all customs procedures. At the present time the company trains its personnel to use the new equipment.



KONECRANES' NEW PRODUCT

On the 14th of June at the TOC Europe exhibition in Hamburg, Germany, Konecranes introduced a new Rail Mounted Gantry crane (RMG) to market: BOXPORTER.

This new crane offers the clearest view in intermodal container handling with its "smarter cabin", which gives the operator superb visibility and comfort. It also gives the operator an extended view to truck and train loading and unloading and container stacking thanks to video and control information displayed on the cabin monitor.

Konecranes has been delivering Rail Mounted Gantry (RMG) cranes to intermodal operators for many years. The new BOXPORTER RMG is the result of customer feedback and systematic study of field use conditions. BOXPORTER is built on a modular design approach that provides the efficiency benefits of standardization while giving the customer great scope for tailoring with optional features. The goal is a fast delivery time, high container handling productivity, excellent reliability, low maintenance and long service life. There is also an evolution path to remote operation and full automation.

New appointments-2016

STATE STRUCTURES



Vladimir Korolev—Commander-in-Chief of the Russian Navy

Admiral Vladimir Korolev has been appointed Commander-in-Chief of the Russian Navy.

Admiral Vladimir Korolev had been a Commander of Russia's Northern Fleet since 2011. In autumn 2012, surface ships of the Northern Fleet started Arctic development under his command and for the first time in the history of Russia performed an amphibious landing onto the New Siberian Islands.

In December 2014, Vladimir Korolev headed the united strategic command of the Northern Fleet reinforced with the Kola Air Defence formation, separate motor rifle and Arctic brigades and aviation. The area of the command responsibility along the Arctic Ocean coast of the Russian Federation expanded up to the administrative border of the Chukotka Autonomous District.

Intense development of military infrastructure of the Northern Fleet in the Arctic was held in 2015 under direct command of Vladimir Korolev. RF Navy Commander Admiral Victor Chirkov earlier sent in resignation for health reasons.



Victor Olersky—head of the industry

Victor Olersky was appointed Deputy Minister of Transport—Head of Federal Marine and River Transport Agency (Rosmorrechflot) from February 8, 2016. The Decree was signed by RF Prime Minister Dmitry Medvedev.

Among the priority activities the new head of Rosmorrechflot named implementation of Russia's sea projects in the Arctic—completion of port Sabetta and development of the Northern Sea Route infrastructure. Besides, efforts will strengthen on creation of deepwater terminals in the Azov-Black Sea Basin of Russia—development of Novorossiysk port facilities and the approaches to the port as well as the development of port facilities on the Taman peninsula. Special attention will be paid to port infrastructure in the Far East of Russia.

As for the development of inland water ways, Rosmorrechflot headed by Victor Olersky has entered the active phase of preparation for the State Council of the Russian Federation dedicated to inland water transport issues. The main task here is the implementation of large scale infrastructure projects on construction of the Bagayevsky and the Nizhny Novgorod hydrosystems.

Among the key tasks is, of course, the support of the Russian fleet.



Dmitry Pristanskov appointed as Head of Rosimushchestvo

In April 2016, Prime Minister of Russia Dmitry Medvedev appointed Dmitry Pristanskov as the Head of Rosimushchestvo (Federal Agency for State Property Management).

Dmitry Pristanskov was born on December 17, 1976. In 1999 he graduated from the faculty of law at Saint Petersburg State University. He was working at Rosimushchestvo from March 2005. From March 2014—Director of Federal and Regional Programmes of Norilsk Nickel.

Ex-Head of Rosimushchestvo Olga Dergunova was relieved of her post on April 12, 2016.



Vitaly Klyuev heads a department at RF Ministry of Transport

On June 8, 2016, Vitaly Klyuev was appointed Director of the Department of State Policy for Maritime and River Transport of Russia's Ministry of Transport. Vitaly Klyuev earlier used to be an acting head of the Department.

Vitaly Klyuev graduated from the Far-Eastern High Engineering Maritime College, Navigation Faculty, Vladivostok, Russia, 1985. He was also qualified at the Institute of International Relationships of the Far-Eastern State University, Vladivostok, Russia, 2002 and obtained an academic degree: Doctor of Transport.

Vitaly Klyuev has an extensive experience in international maritime activity. He is a Chairman of the Committee of the Tokyo MOU on PSC, a Chairman of the Committee of the Black Sea MOU on PSC and a Vice-Chairman of the Committee of the

Paris MOU on PSC.



Stanislav Chui elected as new Director of Shipbuilding Department at Ministry of Industry and Trade

On July 13, 2016, Stanislav Chui was elected as new Director of the Shipbuilding Industry and Marine Facilities Department at RF Ministry of Industry and Trade.

Stanislav Chui previously held the post of the Director of Production System Development Department at the United Shipbuilding Corporation and also held top positions at FSUE SpetsStroyKontrakt of Russia's Federal Agency for Special Construction (SpetsStroy of Russia).

Maxim Kochetkov who held the position was relieved of his post and appointed an Advisor to Denis Maturov, RF Minister of Industry and Trade.



Nadezhda Zhikhareva appointed as Deputy Head of Rosmorrechflot

In early June 2016, Nadezhda Zhikhareva was appointed Deputy Head of the Federal Marine and River Transport Agency (Rosmorrechflot).

In 2003 Nadezhda Zhikhareva graduated from Moscow State Academy of Water Transport, Department of Economics and Water Transport Company Management, specialization in State Management of Transport Complex.

From 2004 she held different official positions at the Ministry of Transport of the Russian Federation.

In 2006 Nadezhda Zhikhareva underwent professional retraining at the Academy of National Economy under the Government of the Russian Federation, State Management and Law Programme.

Nadezhda Zhikhareva is in charge of issues related to the Agency's activities and development of seaports. Sergei Gorelik, ex-Deputy Head of Rosmorrechflot, left the post at his own request in early 2016.



Veronika Bobrovskaya is in charge of arranging the State Border Checkpoints

RF Transport Minister Maxim Sokolov has signed the Order on appointing Veronika Bobrovskaya as Director of the Department of State Policy on Arrangement of the State Border Checkpoints.

In early February 2016 Russian President Vladimir Putin approved the proposal of RF Government to hand over State Border Agency's functions to RF Ministry of Transport.



Leonid Bershansky appointed as Head of FSE Rosgranstroj

Leonid Bershansky has been appointed the head of the federal state-owned enterprise Direction on Construction and Operation of State Border Service Agency's Facilities.

The order was signed on February 11, 2016.

Federal state-owned enterprise Direction on Construction and Operation of State Border Service Agency's Facilities (FSE Rosgranstroj) is in charge of the activities necessary for border, customs and other control at the State Border crossing places as well as for exercising the federal authorities' powers in the sphere of RF State Border protection.



Denis Tikhonov appointed as Director General of Far East Development Corporation

Denis Tikhonov has been appointed Director General of Far East Development Corporation within the jurisdiction of Ministry for the Development of the Russian Far East.

According to the national rating of the Agency for Strategic Initiatives, Tula Region Development Corporation headed by Denis Tikhonov was acknowledged the best in Russia in 2015. Denis Tikhonov is in the top 100 of the presidential pool of executive candidates.

Far East Development Corporation JV is company set up to establish and manage Priority Socio-Economic Development Areas (PDAs) in the Far East region of Russia. The Corporation also develops infrastructure facilities of PDAs, ensures their functioning and keeps a Register of PDA residents. The managing company also serves as a center for providing state and municipal services at PDAs and arranges providing of services required by PDA residents. The Corporation was set up on May 6, 2015. 100% of the company is owned by the Russian Government with the shareholders' rights held by the Ministry for the Development of the Russian Far East.



Dmitry Smirnov appointed as Head of Northern Sea Route Administration

On April 19, 2016, Dmitry Smirnov was appointed the Head of the Federal State Institution "The Northern Sea Route Administration".

In 1985 Dmitry Smirnov graduated from Higher Naval College named after M.V. Frunze as electrical engineer; in 1995—Interdisciplinary Institution of Advanced Training at Saint-Petersburg State University of Economics with specialization in banking business.

From 2010—First Deputy General Director, Director General of FSUE Baltic BASU.

2013–2014—Head of State Marine Rescue Service, from 2014 till April 2016—First Deputy Head of Rosmorrechflot's

Marine Rescue Service.



Moscow Canal is headed by Aleksandr Ivanov

In April 2016, Aleksandr Ivanov was appointed the Head of the Federal State Budgetary Institution "Moscow Canal".

Aleksandr Ivanov is a graduate of Lvov Higher School of Military and Political Education, Military and Political Academy named after V.I. Lenin, Volga Region Academy of Public Administration named after P.A. Stolypin.

In 2009–2014—Head of Yenisei River Shipping Company OJSC, Advisor to Vice-President of Norilsk-Nickel PJSC, Advisor to Deputy Head of the Federal Marine and River Transport Agency.

PRIVATE COMPANIES



Mordraga is headed by William Daffyd Evans

William Daffyd Evans was appointed General Director of Mordraga LLC (DEME Group, Belgium) from June 30, 2016.

Mordraga LLC (DEME's Russian subsidiary) is a dredging, land reclamation and hydraulic engineering works specialist providing a complete cycle of solutions at ports and at sea for laying of subsea pipelines, installation of offshore structures including platforms. Mordraga was founded in 2005 as a part of the DEME, one of the global leaders in marine construction and engineering with more than 150 years of profile experience worldwide.

DEME Group is the solutions provider for dredging, hydraulic engineering and environmental projects. Having its core-business in dredging operations and land reclamation, the group diversified into hydraulic projects at sea, services to oil and gas companies, the installation of offshore wind farms, environmental activities such as soil remediation and sediment recycling, and revalidation of brownfields and wreck clearance.



Vadim Kashirin—Director General of Marine Fasade

Vadim Kashirin has been elected Director General of Passenger Port of Saint-Petersburg «Marine Fasade» PLC. The decision was made at the meeting of the company BoD on April 7, 2016.

With his higher legal and technical education Vadim Kashirin used to head criminal police of the North-West Directorate for Internal Affairs in Transport (from 2009 till July 2010). From July 2010 till February 2016—head of RF Interior Ministry's Transport Department for the North-West Federal District.

Passenger Port of Saint-Petersburg «Marine Fasade» PLC is in the ownership of the city of St. Petersburg and is the largest passenger seaport in Russia. The port can accommodate cruise and ferry ships of up to 330 m long and with a draft of up

to 8.8 m.



Yakov Antonov appointed as Director General of Northern Shipping Company

Yakov Antonov was appointed Director General of Northern Shipping Company OJSC at the extraordinary general meeting of the company shareholders held on July 4, 2016.

The powers of Aleksandr Bryntsev, previous Director General of Northern Shipping Company, were terminated, Yakov Antonov was elected for a year-long period.

Northern Shipping Company OJSC is among the largest shipping companies in the North-West Region of Russia engaged in maritime transportation of cargo all over the world including the Northern Sea Route. The Company's fleet consists of multi-purpose dry cargo carriers with deadweight between 2,500 and 14,000 t. They carry all types of dry cargo including radioactive and hazardous cargo.



Victor Kirilenko—Chairman of Volga Shipping Company BoD

On June 27, 2016, the Board of Directors of Volga Shipping Company OJSC elected Victor Kirilenko as its Chairman.

Victor Kirilenko graduated from Moscow Institute of Steel and Alloys with specialization in automation of metallurgical production facility. From 2004 he was working at Novolipetsk Steel OJSC, from 2012—Commercial Director of T.A. Management (UCL Holding).

Volga Shipping OJSC is one of the biggest transport companies in Russia. It was founded in 1843. The company transports cargoes along rivers and lakes of the country. In 2015, Volga Shipping carried 5.6 mln t of cargo.

The Company is a part of VBTH—shipping division of Universal Cargo Logistics Holding, international transportation group consolidating a number of Russian railway, stevedoring and logistic companies (the majority stakeholder of VBTH). The division comprises North Western Shipping Company, V.F. Tanker, a number of shipbuilding and cruise assets.



Sergei Chelyadin appointed as Managing Director of Multipurpose Reloading Complex LLC (Ust-Luga)

Sergey Chelyadin was appointed as the Managing Director of LLC «Multipurpose Reloading Complex» (part of UCL Port, stevedoring division of the International transportation group of UCL Holding) from March 1, 2016.

Former director of the company Andrey Yaroslavtsev was appointed as the Managing Director of OJSC «Tuapse Sea Commercial Port» (also part of UCL Holding).

Sergey Chelyadin graduated from Voronezh State University in 1991 (legal science) and from MBA Higher School of corporate management at the Academy of National Economy of the Government of the Russian Federation in 2003.

From 1995 to 2005 Sergey Chelyadin was holding key positions in OJSC «Novolipetsk Steel Works». In 2005 he started to work as the General Director of OJSC «Sea Port of Saint-Petersburg». From 2009—General Director of «Grazhdanskie Pripasy Ltd.» and from 2012—Managing Director of «Rumelko-Patron Ltd.».

LLC «Multipurpose Reloading Complex» is a cargo terminal in the port of Ust-Luga in the Leningrad Region, specializing in reception, storage and shipment of export/import general and bulk cargoes. Main cargo reloaded by the company is export power generating coal. In 2015 the turnover of LLC «MRC» amounted to 4.2 mln. tons of cargo.



Alexander Isurin appointed as President of FESCO Transportation Group

The FESCO Transportation Group announced the appointment of Alexander Isurin as the Group's President effective from 26 February 2016. Alexander Isurin, previously Senior Vice President for Commerce, replaces Konstantin Sokolov, who is stepping down as the Group's President on the same date.

Ziyavudin Magomedov, Chairman of FESCO's Board of Directors, said that Alexander Isurin's primary task would be to update FESCO's strategy and analyze growth opportunities focusing on highest-potential areas of modern logistics, including 3PL and 4PL services.

Alexander Isurin's experience in transportation and container shipping exceeds 15 years. Before joining the FESCO team, Alexander headed the Russian and Central Asian Office of MSC, a world leader in container shipping.

FESCO is one of the leading privately-owned transportation and logistics companies in Russia with operations in ports, rail, integrated logistics and shipping business. FESCO Group owns Commercial Port of Vladivostok OJSC, railway operator Transgarant, and Russkaya Troyka (50% joint venture with Russian Railways OJSC). FESCO operates a container park of over 36,000 containers and a fleet of 22 cargo ships and 4 icebreakers (in long-term time-charter).

Main shareholders of FESCO Group are SUMMA Group of Magomedov brothers (32.5%), GHP Group (23.8%), TPG (17.4%), East Capital (4.9%). Public ownership—21.4% of stake.



Zairbek Yusupov—Head of Commercial Port of Vladivostok

Supervisory Board of Commercial Port of Vladivostok PJSC (FESCO Transportation Group) has elected Zairbek Yusupov as Director General of the Company. Zairbek Yusupov entered his office on March 1, 2016.

In 2009–2015, Zairbek Yusupov was working at the largest gas company of Yakutiya, Yatec JSC, as the First Deputy Director General, Executive Director and Director General.

JSC Commercial Sea Port of Vladivostok (part of FESCO Transportation Group) is one of the largest stevedoring companies in Far East of Russia. The Company specializes in handling container/general/bulk/Ro-Ro cargoes.



Eduard Yefimov appointed as Director General of Baltic Shipbuilding Plant "Yantar"

Eduard Yefimov entered the office of Director General of Baltic Shipbuilding Plant "Yantar" (Kaliningrad, USC) on February 16, 2016. The decision was made by the Board of Directors in early February.

The position of "Yantar" acting head was previously held by Igor Ponomarev, Vice-President of United Shipbuilding Corporation responsible for construction of warships. The period of anti-crisis management is thus over at the Baltic shipyard of the USC. Igor Ponomarev has been reelected the Chairman of "Yantar" BoD held by him before taking the position of acting Director General of "Yantar".

Kaliningrad-based Baltic Shipbuilding Plant "Yantar" (Yantar Shipyard) was founded on July 8, 1945 on the basis of a Koenigsberg unit of German's Schichau Werft. Yantar Shipyard specializes in building and repair of warships and civil boats.



Oleg Kreslavsky—new Director General of Murmansk Sea Fishing Port

BoD of Murmansk Sea Fishing Port JSC appointed Oleg Kreslavsky as Director General of the Company from March 1 to replace Aleksandr Polyansky. The decision was announced by Aleksandr Romanov, Chairman of the Company's BoD. New Director General of Murmansk Sea Fishing Port—Oleg Kreslavsky. Earlier he held the position of First Deputy Director General of the Company.

In 2002, Oleg Kreslavsky graduated from Saint-Petersburg State University of Economics. From 2002, Oleg Kreslavsky worked at Sevryba OJSC. From 2011—Managing Director of PolarPharm Group. On December 15, 2015 he was appointed the First Deputy to Director General of Murmansk Sea Fishing Port.

OJSC Murmansk Sea Fishing Port specializes in handling cargo from fishing boats, mother ships and reefer vessels. The company also handles break bulk, packaged, palleted and loose cargoes, as well as general cargo of commercial and military use. In 2015 the port handed 371,400 t of cargo (–10.8%, year-on-year).



Management replacement at Shipyard Lotus

Dmitry Antonov was appointed as Acting Director General of Shipyard Lotus, while Lotus ex-head Vladimir Kulakov was appointed as the head of Amursky Shipyard from May 16, 2016.

Dmitry Antonov previously held the position of Deputy Director General on Shipbuilding at Caspian Energy Group.

The key tasks of the new Lotus head is to ensure long-term loading with shipbuilding orders for offshore projects and inland water ways, high level and promptness of order implementation, modernization of the shipyard.





**THIRD PHASE OF RUSSIA'S LARGEST
COAL PORT WILL BE PUT INTO OPERATION IN 2017**



**CONTRACTS WITH LEADING COAL COMPANIES,
KUZBASRAZREZUGOL AND SUEK, ENSURE ITS CARGO BASE**

- Unique state-of-the-art transshipment equipment
 - Multi-level system of magnetic cleaning
- Handling of large capacity vessels of up to 180,000 DWT
 - Round-the-year navigation
 - Port fleet services



Slowly but surely

According to Russia's Ministry of Transport estimates, capacity of Russian ports in 2016 will grow by 32 million tonnes per year. The growth is expected primarily in coal segment, in crude volumes shipped from the Arctic offshore fields, in diesel fuel, containers and Ro-Ro cargo.

GENERAL CARGO

Container and Ro-Ro cargo throughput is expected to rise thanks to the major port project, namely the St. Petersburg based Bronka port that has started operations recently.

Construction of the approach channel's Phase 1 of the Multipurpose Sea Cargo Complex Bronka (MSCC) Bronka was completed in December 2015 ahead of schedule. The second phase is scheduled for completion in 2017. In March, the terminal was officially included in the register of sea ports of the Russian Federation.

Container throughput at the port of Bronka in the first half of 2016 totaled 13,800 TEUs. In the reporting period 53 ships called to the terminal. There were 96,000 tonnes of cargo exported / imported from the terminal by rail. The port expects a nearly four-fold surge by the year-end in volumes moved by rail.

The capacity of the Bronka terminal Phase 1 is 1.45 million TEUs and 260,000 units of Ro-Ro cargo. The facility will be able in future increase container and Ro-Ro cargo throughput to 1.9 million TEUs and 260,000 units, accordingly.

Speaking of the Northwest Basin, it's worth noting the modernization of terminals of JSC Sea Port St. Petersburg (SP Spb). In the first half of 2016 the port operator which is part of UCL Holding invested RUB132,9 million in expansion, or 3.5 times more than in the same period last year. Most of the funds, 108.1 million rubles, were earmarked for re-equipment of the terminals, 24.8 million rubles were spent for storage facilities retrofitting.

In the reporting period, the company has commissioned two wheel loaders Volvo L60GZ with bucket capacity of 2 cbm. Volvo L60GZ featuring compact dimensions and exhaust gas converter enables the loader handle bulk cargo in the holds and covered warehouses. The company also materials handling equipment and specialized roll-trailers for the transport of cargo on the port territory.

In the six-month period the terminal operator made an advance payment for two forklifts Kalmar DCF330-12LB of max lifting capacity of 33 tonnes, designed for handling ferrous metals, in particular of steel slabs and steel coils. In addition, the company acquired four forklift truck Kalmar DCG 100-6 of capacity of 10 tonnes and two 8-tonne forklifts TCM to be deployed on Cargo Areas No 1 and 2 at the port. New equipment will be delivered at the terminal this fall.

Also, Port St. Petersburg has completed storage facilities modernization. These projects will help increase the port's throughput and expand the range of goods handled at the port.

SP Spb overhauled the system of hot and cold water supply of port facilities and updated automated commercial electricity metering system, which will reduce the company's costs.

COAL

Coal is still the main export commodity handled at Russian sea ports. The Russian Energy Ministry's statistics show that in the first half of 2016 the total volume of coal



exports increased by 13.3% year-on-year to 78,979,330 tonnes with 64.7 million tonnes (up 11.9%) exported through the ports.

Major projects for development of coal harbors will be implemented in the country's Far East. The project of Tosei Co. is one of such announced projects. The Japanese company plans to invest 60.62 billion rubles in the coal terminal project in Partizansky district of Primorsky Territory. The company's application has been approved by the Free Port of Vladivostok Management Co. and the agreement terms are being negotiated. The facility's projected capacity will be 20 million tonnes.

Beside of new coal terminal projects the existing terminals in the region are undergoing modernization. JSC Vostochny Port is currently completing the construction of Vostochny Coal Terminal Phase 3. The project is expected to nearly double coal throughput of this largest Russian coal handling company to 39 million tonnes annually. The environment and its conservation in its purest form is one its priorities, the company says. The coal handling complex is equipped with a water spraying system to reduce coal dust. There is a vacuum dust collecting system at the railcar dumper station of the coal complex working 24/7. The port also has systems for air purification and for wastewater treatment are permanently operating at the port. Once the complex is commissioned there will be a multilevel filtering system available that will clean the waste water to the quality of fishery reservoir, or to levels similar to the treatment plant on the Universal Handling Complex.

Nakhodka Commercial Sea Port is also investing in the environment protection. The port has completed the construction of additional dust suppressing systems to protect the surrounding areas and the port itself. Berths No 71 and 72 have dust control fence surrounding the coal

depots on three sides, protecting the residential district Cape Astafieva. Built on the principles of aerodynamics, the panels are able to control air flow to reduce the dust dispersion. The system reduces the kinetic energy of wind to a minimum, thus reducing dusting of the air. Today, this technology is the most efficient for dust suppression. To minimize the impact on the environment, the port workers regularly irrigate coal stockpiles and spraying water in surrounding areas. Water cannons with spray nozzles create water mist and to a height sufficient the water settled on the piles. The mist creates a thin crust that prevents dusting. In addition, two street flusher trucks constantly water all the roads and service lanes in the port and the adjacent area of the residential complex.

Astafiev Terminal, another dedicated coal handling facility, is also carrying out its development program. The terminal provides services for many foreign companies. In 2015 coal was shipped to Japan, China, Taiwan, Indonesia and the Republic of Korea. The largest coal cargo (57,500 tonnes) was exported to India. The modernization project includes the construction of a unique eco-friendly indoor bulk cargo terminal. This is a closed conveyor line, modern dust suppression systems—a protective grid installed on the perimeter of the terminal, rain guns used in the summer and snowmaking units in winter seasons.

The North-West regional coal terminals are also busy implementing modernization projects. The Multipurpose Reloading Complex (MRC, Port of Ust-Luga) on 21 March 2016 launched in test mode 9 mobile wheel conveyors LK-2512. The 225-meter-long conveyor line of capacity of 1,000 t/h will be used for the transportation of thermal coal, the main cargo handled at MRC, from the off-dock terminal to the berths. The automatic controlled conveyors are launched from a single remote control room. The production



safety is ensured by stopping the entire chain of the equipment in an emergency. The conveyor line was acquired by MRC under the company's capacities modernization program. The new equipment will allow the company to increase the cargo handling performance, reduce time for moving cargo on the territory of the terminal and optimize the process.

ARCTIC HYDROCARBONS

In 2016 the launch of Gates of the Arctic Terminal was an important event for the Russian port industry. The facility is intended for year-round exports of crude oil from Novoportovskoye field. Between May 25 and July 1 2016 thanks to the terminal commissioning ten Arc5 class crude carriers were sent from Cape Kamenny. Prior to the terminal launching of crude oil was shipped only in the summer season by three river and four sea-going tankers.

In 2018 the oil field output may reach 6.3 million tonnes of crude oil. Further development of the field will be determined before the end of 2017.

Crude oil is supplied through the 100-km-long pipeline from Novoportovskoye field to the coast of the Gulf of Ob (Obskaya Guba) where depth of navigable fairway is too low for vessels, only 11 m. Therefore the oil terminal Gates of the Arctic was constructed 3.5 km offshore. The terminal of projected capacity of 8.5 million tonnes per year is able to transship throughout the year crude oil produced in Yamal to tankers for further transportation by the Northern Sea Route.

The Gates of the Arctic is a unique structure. The terminal is designed to operate in extreme climatic conditions with temperature in the region dropping below -50°C and the ice thickness exceeding 2 meters. The terminal features two level protection system and meets the most stringent requirements for industrial safety and protection of the environment.

«The planned increase in production volumes and transportation of hydrocarbons from the Yamal Peninsula is one of the key objectives of the strategy of development of the Novy Port project. Its achievement is the increase in the

number of specialized vessels involved in transportation of crude oil cargoes, the expansion of existing manufacturing capacities, as well as the commissioning of new production facilities of preparation and transportation of crude oil,» said General Director of LLC Gazpromneft—Yamal Alexei Ovechkin.

Another important event was the installation of the Umba, a FSO unit at offshore facility RPK-Nord based in Murmansk port. The storage tanker will be used for transshipment of export crude oil from Novoportovskoye and Prirazlomnoye oil fields.

The Prirazlomnoye oil field is expected to produce in 2016 is expected more than 2 million tonnes of crude oil. A year ago 800,000 tonnes of export oil were produced there. In the future the Prirazlomnoye is expected to hit the 5 millionth tonne mark a year. At the moment, the field operator is conducting development drilling, there are 4 development wells and 1 absorption well.

OIL AND DIESEL

There are significant changes occurring in the segment of diesel fuel, with Sever and Yug as the most significant projects of Transneft.

According to forecasts of Vladimir Nazarov, Deputy Vice President, Director Oil Products Transportation, Metering and Quality Department of Transneft, in 2016 the volume of Russian crude oil shipments through the Port of Ventspils based in Latvia will be cut by more than twofold to 2 million tonnes. At the same time export of diesel fuel through the Russian Port of Primorsk will rise to 15 million tonnes, and by 2020, upon completion of Sever project—to 25 million tonnes per year.

The oil transportation company also plans to increase oil product exports through Russia's southern Port of Novorossiysk. Once Yug project is completed the resource base in this southern area is estimated is estimated at 10.9 million tonnes of diesel fuel by 2021.

Continuing the theme of diesel, it is also worth noting the

launch oil pipeline from Primorsk port in Vysotsk port (the terminal RPK Vysotsk «LUKOIL-II»), which started its work in test mode February 2016 and now operates in a stable mode. Its resource base for 2016 is 1.2 million tonnes of diesel fuel at a power of 1.5 million tonnes per year. In the future may increase capacity to 3 million tonnes per year, and in the future—up to 5 million tonnes per year.

As for crude oil, it is worth noting the announced by Transneft plans of producing new HS Urals Heavy blend from Urals Crude (from the Urals blend of Ural-Volga). The product will have a sulfur content of 2.3% and will be delivered through the Port of Ust-Luga. Projected volume of Urals Heavy supply is estimated at some 30 million tonnes per year. It is pending a decision by the Russian government, and the blend will be prepared within about a year.

SOUTHERN HORIZONS

The project of expansion of capacities of PJSC Novorossiysk bread products plant (NKHP, belongs to state-owned United Grain Company and Summa Group of Ziyavudin Magomedov) is in full swing. The new silo phase 1 will be launched in October 2016. In general, the terminal modernization project is expected to increase volumes from 3.5 million tonnes to 6 million tonnes per year. Investments in the grain silo and the terminal redevelopment will reach RUB6 billion by 2018.

Expansion projects of United Freight Forwarding Company (OTEKO) are also moving along. In July 2016 the Group announced the acquisition of seven new 250 and 400-tonne cranes. The equipment will be used for the construction of hydraulic structures of OTEKO's future terminals in the Port of Taman. With this latest addition the total number of cranes involved in the projects has increased to 10 units of total hoisting capacity of 3,000 tonnes. The cranes were purchased for simultaneous construction of four berths of Taman Dry Bulk Terminal (TTNG). Technology applied by the company will help boost the construction

process by five times. Completion of the construction of sea access and berths of OTEKO's dry bulk facilities is scheduled for 2017. The company says the terminal projected capacity will be 35 million tonnes of coal, iron ore, sulfur and mineral fertilizers annually with an option to double the volume. The project is financed through OTEKO's own funds. The first shipment of export cargo from the dry bulk terminal is expected in February 2018.

MURMANSK TRANSPORT HUB GAINS MOMENTUM

Construction of facilities as part the project of integrated development of the Murmansk Transport Hub (MTH) in the first half of 2016 «has gained momentum,» Murmansk Region Governor Marina Kovtun said in June during a joint inspection of the construction site with Russian Transport Minister Maxim Sokolov.

The sites are scattered along the main facilities construction of a new electric railway line. Electric trains will run on the route Vykhodnoy—Bridge over the Tuloma—Murmashi station 2—Lavna station. There are more than 1,000 workers and some 400 pieces of equipment involved in the construction.

General Contractor for the construction of the railway line is a diversified construction group of companies Stroygazconsalting (SGC).

Ms. Marina Kovtun noted that the main challenge now is to implement the MTH development project keeping up the pace to implement the project in full and on time.

The regional authorities said that the eastern shore of the Kola Bay has nearly reached its maximum capacity limits. The volume of coal exports through the Murmansk port (on its east coast) has already exceeded 14 million tonnes per year. «It's performed (coal handling) almost within the city boundaries on the coal terminal's berths, which were built back in the middle of the 20th century, and with the use of long-outdated clamshell bucket technology,» the head of the region said.





Vostochny Port P3 completion is just around the corner

JSC Vostochny Port is nearing completion of the construction of dedicated Coal Terminal Phase 3, which scheduled for launching in 2017. The project is expected to increase annual coal throughput of the largest Russian stevedoring company specializing in coal handling by 20 million tonnes to 39 million tonnes.

The coal handling complex phase three of Vostochny Port based in Primorsky Krai and is kind of a duplicate of the existing production and specialized transshipment facility «Ugolny». The green field rail infrastructure project is being implemented on an area encompassing nearly 54 hectares including the artificial land site. There will be four warehouses equipped with two stackers and four reclaimers. Total area of simultaneous storage will be about 800,000 tonnes of coal. The third phase project envisages the installation of railcar defrosting application, similar to the existing complex, for simultaneous thawing 80 gondolas, the conveyor system equipment and two tandem rotary car dumpers. Two powerful loaders of bulk cargo ships will be installed at the deep-water berths, designed to accommodate 180,000dwt ships.

As part of the project the creation of an artificial land has been completed now, including shore protection and dredging. At the very territory of the future coal-loading complex laying of utilities lines have been completed, including pipelines and drainage lines of future water lines for spraying coal in warehouses to suppress coal dust. Contractor erected walls surrounding the area of the future warehouses and building frames of wastewater treatment facilities.

JSC Vostochny Port and Port Management Company LLC pay special attention to environmental protection of the environment. That is why construction of environmental facilities is carried out on the territory of facility's third phase now, long before the introduction of the terminal.

Supply of specialized equipment spare parts to Vostochny Port for the third phase began in the summer of 2015. To receive the shipments a new cargo berth was built at the site.

As part of the project Vostochny Port Company has considered the possibility of financing from its own funds the construction of federal and private facilities of the Vostochny-Nakhodka transportation hub infrastructure. The shareholders of Vostochnaya Port approved the private investments in the construction of new public railway infrastructure of the Nakhodka-Vostochnaya station (one of Russia's largest freight yards). The upgrade will increase the station's capacity by 20 million tonnes per year to contribute to a corresponding increase in coal throughput of Vostochny Port's coal handling complex, third phase.

In line with the project technical specifications of Russian Railways (RZD), it was decided to build two rail yards in the Vostochnaya-Nakhodka. The stevedoring company will transfer for free one of the completed yards for management by RZD under a contract for connection to the main railway



infrastructure. The estimated cost of the project, according to the stevedore is RUB25 billion.

Marine terminal Vostochny Port specializes in handling coal mined in the Kuzbass basin and exported from Russia, and has secured long-term export contracts, which stimulate the terminal to carry out large-scale private investments in expansion of handling capacities.

Anatoly Lazarev, Managing Director Vostochny Port previously informed at the East Economic Forum that the coal handling complex P3 would help create 450 new jobs and replenish the state budget every year by 2 billion rubles. He added that currently the project has been completed by 50%. The total investment in the project reaches RUB20 billion, provided by shareholders. The funds were appropriated for the terminal equipment procurement. It is expected that this will be the most environmentally successful coal complex in Port Vostochny.

Vostochny Port Co. signed a number of agreements on the sidelines of the Eastern Economic Forum with the world's leading manufacturer of specialized equipment and the largest coal mining companies in Russia. Vostochny Port signed Memorandum of Understanding with Marubeni Corporation. The agreement will help consolidate cooperation between the two companies, as well as the two countries to boost Russian coal exports to Japan and Asia-Pacific countries. The continuation of the MoU was the signing of a contract for the supply of two ship loaders to Vostochny Port's coal terminal P3.

Vostochny Port also signed several agreements to ensure coal delivery by railways, to enhance freight handling technology, transportation and information exchange, with JSC SUEK and JSC Kuzbassrazrezugol.

SUEK intends to export part of its coal from rail stations in Khakassia, Buryatia, Trans-Baikal and Khabarovsk territories, other stations and then via Vostochny Port. Kuzbassrazrezugol will export coal from rail stations Erunakovo Razrez, Bochaty, Belovo, Latishi, Tyrgan, Sarbala

and Cherkasov Kamen and through Vostochny Port until 2030.

ABOUT JSC VOSTOCHNY PORT

Joint Stock Company Vostochny Port is the major stevedoring company of Russia specializing in handling of export coal. The company is base in Russia's Far East region, Primorsky Krai, Nakhodka City district, Wrangel Bay.

The company's assets include the Specialized Coal Terminal, the only one in the Primorsky Territory dedicated terminal utilizing conveyer equipment as well as the railcar unloading station. Automation at the facility reaches 98.9%. The coal terminal's annual capacity reaches 14.2 million tonnes.

The second facility is the Universal Handling Terminal of annual capacity of 3 million tonnes, which specializes in clamshell coal handling.

The Company handles largely coal mined in Kuzbass region. The commodity exports account for 98.5% of total cargo volumes of the terminal operator. Less than 2% is coal shipped by coasting dry bulk carriers.

In 2014, coal throughput of the company rose 32.5% year-on-year to 21.84 million tonnes of the turnover of the ports of the Far East coal basin and around 19% of the turnover of all Russian coal ports.

Construction of Vostochny Port's Coal Handling Terminal Phase 3 began in 2012. The facility is similar to available dedicated coal handling complex. Upon completion of Phase 3 total coal exports through the company's terminal will reach 39 million tonnes per year by 2020.

At the end of 2014 Vostochny Port was awarded "The Best Stevedoring Company in Russia" and «Company of the Year» in Primorsky Territory. The company is one of the largest taxpayers in the region and is in the register of socially responsible companies of Primorsky Territory.

The sole executive body of JSC Vostochny Port is Port Management Company LLC.



ZPMC: Nearer, still nearer to Russia

Over the past 25 years, Shanghai based heavy industry enterprise Shanghai Zhenhua Heavy Industries Co. Ltd. (ZPMC) has evolved from a small firm with authorized share capital of \$1 million and only 10 employees into a global corporation with an annual turnover of \$5 billion, eight production sites with total workforce of more than 30,000 people and global market share in different business segments reaching 80%.

The emergence of ZPMC in the market has transformed China into the world's largest exporter of port handling equipment. Today ZPMC products are supplied to more than 80 countries, including Europe, Asia and the USA. Seven of ten global largest ports utilize equipment manufactured by ZPMC.

The company currently focuses on the development of equipment for maritime, offshore sectors, including floating cranes, pipe-laying vessels, dredgers, offshore supply vessels, drilling platforms and their components, as well as oversized fabricated metals.

Having established itself in Europe, Asia and America and an efficient and professional company, in line with the Board's decision to include Russia in the list of strategic markets, ZPMC begins actively working to expand its footprint in Russia. In particular, Russian subsidiary ZPMC LLC formed in the middle of last year continues its development, improving the quality and efficiency of customer service in Russia and CIS countries. This includes the expansion of its after sales service network, providing expert support to the partners and the turn-key supply of new equipment.

In Vladivostok, ZPMC manufactured equipment has for many years been operated and played an important part in CPV's supply chain. In addition, ZPMC handling equipment is utilized by one of the largest regional operators based in

Novorossiysk PJSC Novolesexport. Globally, ZPMC controls 76% of the market of container cranes and other port handling equipment (in the USA—up to 90%, in Europe—more than 80%), being the largest manufacturer and a major supplier of such leading ports like Shanghai, Hamburg, Rotterdam, Dubai, Singapore and other ports.

The company seeks to find partners in the Russian market, like design offices, engineering companies, research institutes, with the necessary competences to adapt ZPMC products to Russian realities (technical, climatic and other).

In accordance with the approved development plan a consultation center based at ZPMC LLC premises has been providing 24/7 service since June 2016, service stations and warehouses in Novorossiysk and Vladivostok (where ZPMC cranes fleet is located). The company also has completed arranging its headquarters, where the Russian and Chinese personnel will be able to provide professional and prompt services to all interested partners.

The main direction of ZPMC LLC business is the creation of the most efficient and comfortable conditions for the operation of ZPMC equipment in Russia. The company's management is confident that this will be a strong argument when deciding on purchasing new equipment

box: Seven of ten global largest ports utilize equipment manufactured by ZPMC.



Unified Information System will be deployed over the Arctic

The Ministry of Transport of the Russian Federation prepared a concept of the Unified Secure Information System of the Transport Complex of the Arctic Zone of the Russian Federation (ESIS ATC). It is proposed to build it using satellite, cable and tropospheric communication networks of Russian companies.

The concept was prepared by the Department of Development Programs of the Ministry of Transport with the aim of “ensuring the conditions of intensive, extended operation of the transport complex of the Arctic zone of the Russian Federation in the national interests by providing complex information to a variety of consumers and Russia’s achieving sovereign control of transport provision in the region”, as stated in the materials of the Ministry of Transport.

“This system will integrate all the resources that are available in the departments,” said Alexey Semenov, head of the Department of Development Programs of the Ministry of Transport. “We will create a single information environment for the transport sector. We need to ensure national sovereignty over information flows. The task is extremely ambitious, but achievable.”

To create the infrastructure of ESIS ATC, the Ministry of Transport considers it appropriate to put in a place the system of low-orbit satellite communication «Messenger», the relay system based on geostationary satellites «Luch», the «Inmarsat» system with the Russian ground infrastructure, the communication network on the basis of the tropospheric radio-relay line, type «North» (which existed in Soviet years and was serviced by the military), the space system «Arktika»

planned to creation (the first spacecraft is scheduled for launch in late 2017), the fibre-optic backbone «Polarnet» (the project involves the construction of a communication line, which will be laid on the bottom of the Arctic Ocean along the route Bude (United Kingdom) –Murmansk–Anadyr–Vladivostok–Tokyo. The beginning of the project is scheduled for the first half of 2016), the communication systems of the Ministry of Defense in the Arctic and the Russian navigation system GLONASS.

ESIS ATC is planned to be connected to the Automated Control System of Transport Complex, Unified State System of Transport Security and Vessel Monitoring System «MO—RE».

ESIS ATC is planned to consist of centers of storage and processing of navigational, technical and hydro-meteorological information and specialized infrastructure of its collection and transmission. Telecommunications infrastructure of ESIS ATC will include supporting points of the satellite communication and terrestrial network of short-wave and VHF stations coupled to radio-relay trunk lines, tropospheric communications lines, and fiber optic networks.

“The creation of ESIS ATC has already been approved by the decision of the state commission on the Arctic,” said Semenov. “This will be a comprehensive system that will



provide a unified information field for the transport complex of the Arctic. It provides for the establishment of the Arctic testing ground for unmanned aerial vehicles (UAV). Extreme conditions, low population density and great length spaces—these are the factors which will allow to test UAV at the proper level.”

The system of automatic dependent monitoring of long-range aircrafts and aircrafts of general aviation with the use of Russian technologies will become one of the key elements of ESIS ATC.

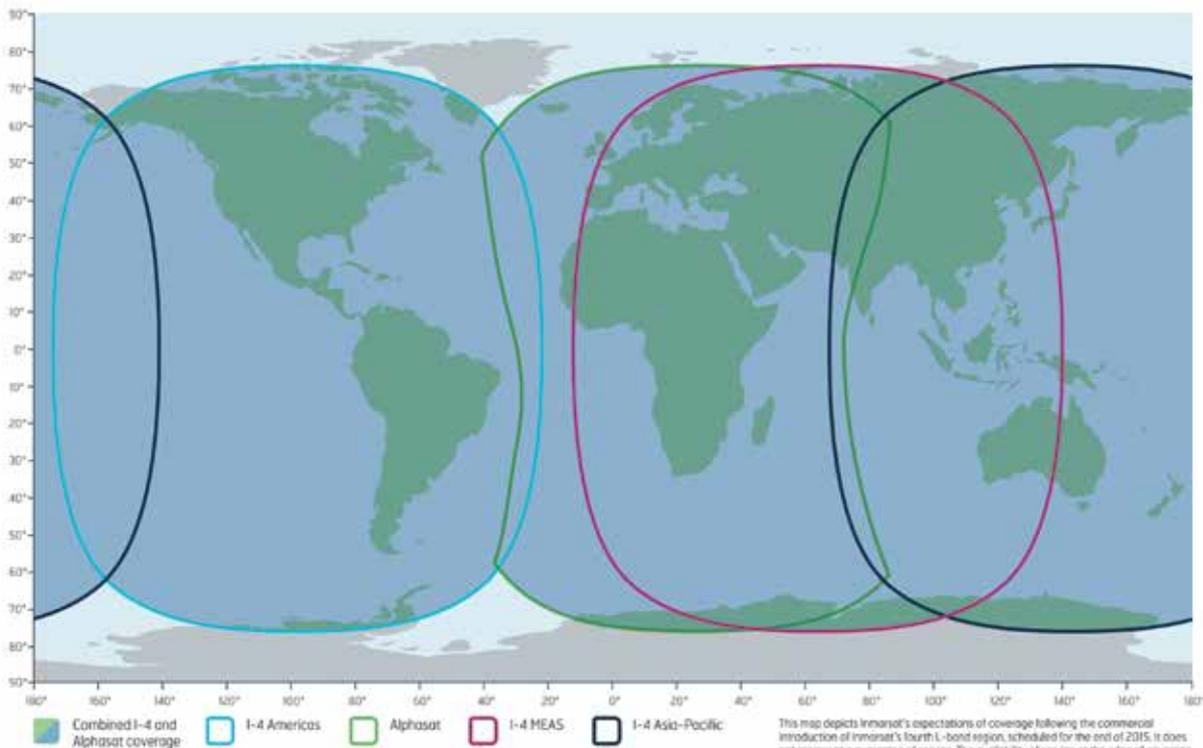
It is planned to deploy the advanced traffic control system

of unmanned vehicles in the Arctic on the basis of the ESIS ATC infrastructure.

“The development of the information system of the Arctic transport complex is, of course, a relevant challenge, but it is not so easily solved in fact,” said Alexei Sinitsky, chief editor of Air Transport Review. “We should establish the cooperation of different systems owned by different departments and solving completely different tasks. It is difficult to work in such conditions, and it is necessary to have a powerful administrative resource and political will as a support.”



I-4 and Alphasat coverage





MILESTONE BOAT

In the end of March 2016, Laky Verf shipyard (Shlisselburg, Leningrad region) launched the 20th boat of Project 14M for RF Interior Ministry's Department for Far Eastern Federal District. In late June, the high-speed police

boat was put into operation in Yakutsk.

The boat named Bair Tsybikov is the ninth boat of this modification to join the fleet of RF Interior Ministry and the first in Yakutia (Sakha Republic). This multi-purpose boat intended for sea and river navigation features a ground for all-round observation and a spacious deckhouse with a state-of-the-art navigation control system.



NEW PROJECT OF LAKY VERF SHIPYARD

In late May, 2016 Laky Verf shipyard (Shlisselburg, Leningrad region) laid down the first ship of new project, 12M. The customer is the Directorate for State Maritime and River Supervision of the

Federal Agency for Transport Supervision (RosTransNadzor).

High-speed boat of Project 12M has an aluminium alloy hull. The vessel can be operated in the rivers, lakes, water basins and in coastal sea areas. The boat is intended for patrolling of search and rescue, customs, environment and other services, staying on duty in assigned areas, participation in special operations.

The lay-down plaque on the first vessel of Project 12M-01 was fixed by Valery Poddubny, Deputy Head of RosTransNadzor's Directorate for State Maritime and River Supervision; Dmitry Atlashkin, Head of the North-West Department of transport safety watchdog Gosmorrechnadzor; Denis Avdeyev, Consultant at the Department for Investigation of Transport Incidents at RosTransNadzor's Directorate for State Maritime and River Supervision; Konstantin Buryanov, Director General of Laky Verf.

"It is not the first time we take the delivery of a boat from Laky Verf. We mark their high quality and compliance to schedule", said Valery Poddubny. According to him, RosTransNadzor will take the delivery of five boats in 2016: three boats of Project 12M and two boats of Project 14M. They will be deployed for operation in Saint-Petersburg, Kazan, Khabarovsk, Khanty-Mansiysk, etc.



BOOM-LAYING BOATS OF YAROSLAVSKY SHIPYARD

In the middle of April 2016, Yaroslavy Shipbuilding Plant launched the lead boom-laying boat of Project A-40-2Б-ЯР, named Aleksandr Sizontsev. In May, the shipyard launched the second boat in the series being built for the Directorate

of the State Customer for Marine Transport Development Programmes. All in all, six vessels of this series will be built by the end of 2018. The boom-laying boats will operate in situation six different parts of Russia.

The ship design was developed by Agat Design Bureau LLC (Saint-Petersburg) jointly with Yaroslavy Shipbuilding Plant.

The vessels of the project are intended for transportation and installation of boom guards in sea coastal search and rescue areas, on the waters of the bays, inlets and seaports, to contain the spread of spilled oil products, to liquidate oil spills, to collect the spilled oil products into floating containers and their further towing to the reception points of shore or floating stations and also for the construction of oil-gathering orders.



BUOY-INSPECTION BOATS FROM KARELIA

In late April 2016, Onega Shipyard (Petrozavodsk, Karelia) held the ceremonial launching of a buoy-inspection boat Krutoyar of Project 02780M.

Later, in mid-June, the shipyard launched another boat of the project named Yury Romanchenko.

The Krutoyar will be deployed by the North-West Basin Branch of Rosmorport, the Yury Romanchenko—by Taganrog department of Rosmorport's Azov Basin Branch.

The vessels are intended for maintenance of aids to navigation ensuring safe shipping within the water areas of Russian seaports.

Onega Shipyard was founded in 1944. The company is located on the shores of Lake Onega in Petrozavodsk, Russia. The shipyard specializes in the construction of bulk carriers, other merchant cargo ships and passenger vessels.



TAMBEY FOR SABETTA

In late February 2016, Craneship LLC (Temryuk, Krasnodar Territory) launched tugboat Tambey named after the Yuzhno-Tambeyskoye gas condensate field located northeast of Yamal Peninsula. The ship is

intended for operation at port Sabetta.

According to Mustafa Kashka, Chief Engineer of FSUE Atomflot, the construction works under Portoflot project are ahead of schedule.

In January 2016, Craneship LLC launched tugboat Pur, also within the framework of Portoflot project.

Portoflot project implies the construction and operation of three ice-class tugs, one port icebreaker and one icebreaking tugboat. The vessels are under construction at Craneship LLC (Temryuk) and Vyborg Shipyard PJSC (Vyborg).

The contract between Portoflot and Yamal LNG OJSC covers the period from 2014 to 2040.



THE SERIES GOES ON

In the middle of March 2016, Nevsky Shipyard laid down 2 multipurpose small-draft salvage vessels of Project MPSV12, Beisug and Piltun, ordered by the Directorate of State Contracting Authority Marine Rescue Service of Rosmorrechflot (Federal Marine and River

Transport Agency). The salvage tug was designed by Marine Engineering Bureau-Design-Spb. Keels of the first and second serial tugs (Hull No 1201, 1202) were laid in early June 2, 2015. The lead ship in the series will be ready for delivery in 2017. The completion of the series is scheduled for 2018.

The ships are intended for patrolling and emergency salvage duty at the navigation regions, fishing regions, oil and gas marine recovery regions; searching and providing assistance to vessels in distress, participating in rescue operations as well as extinguishing of burning oil on water surface, elimination of marine oil spills etc.

According to Victor Chernov, Deputy Head of FBI Marine Rescue Service of Rosmorrechflot, all vessels of the series will be named after small rivers of Russia.

"The first vessel, Bakhtemir (homeported in Astrakhan) will operate in the Caspian Sea; the Kalas (Arkhangelsk)—in the White Sea; the Beisug (Novorossiysk)—in the Black Sea; the Peltun—at Kamchatka or Sakhalin," he said.



VIKTOR KUSKOV FLOATED OUT

In early June 2016, Sosnovka Shipyard (Kirovsk Region) launched the lead vessel of Project BLV04 built for FSUE Rosmorport. The project was designed by Marine Engineering Bureau.

The shipyard is to build 3 vessels of the Project. The

lead BLV04 vessel named Viktor Kuskov was laid down on November 26, 2014 for the North West Basin Department of FSUE Rosmorport (port Ust-Luga); the Gydrograph Ravdin—for the Far East Basin Department of FSUE Rosmorport (port Vladivostok); the Anatoly Klimov—for Vanino Basin Department (port Vanino).

BLV04 vessels are intended for mounting and dismounting floating means of navigational protection; maintenance of floating means of navigational protection at the port and near-port areas; general cargo transportation on deck with loading/unloading by port means on onboard crane; sea floor investigation.



NEW TUGBOAT IN MAGADAN

In mid-March 2016, New tugboat Aleksandr Solzhenitsin built at Damen's Shipyards Changde in China moored at the berth of Magadan seaport.

According to Andrei Gorbov, Director General of the seaport, Damen tugboats

are very reliable and they are widespread in Russia.

"We have discussed it with the ports of Saint-Petersburg, Vanino and Vostochny—all of them speak well of Damen. Average cost of a tugboat is some EUR6 mln. It is a long awaited replacement of tugboats as the last new tugboat moored here almost 35 years ago" said Andrei Gorbov.

The ceremony of putting the ship into operation was attended by Vladimir Pecheny, Governor of the Magadan Region.

With its powerful engines and state-of-the-art propulsion system ensuring high performance and maneuverability the tugboat can break through 1-metre thick ice and can be also used for rescue, evacuation and firefighting purposes. The ship is equipped with firefighting system and a crane capable of lifting up to 900 kg for evacuation purposes. The tug crew numbers eight persons.



PETERGOF IS BASED IN BRONKA

On 17 March 2016, tugboat Petergof of PORT FLEET CJSC was redeployed to its permanent location at port Bronka (MSCC Bronka, Big Port St. Petersburg).

"To reduce ship owners' extra costs it

was decided to redeploy the tugboat to Bronka. This will let considerably decrease the chargeable time of mooring operations since there is no need to shift the tugboat from the First District of port Saint-Petersburg to MSCC Bronka and back," explained Yevgeny Savkin, head of Port Fleet.

According to him, the management of MSCC Bronka has agreed on providing a special berth at the new terminal as a permanent base of PORT FLEET's two tugboats.

The Company's tugboats have been assisting vessels to moor at Bronka from February 2016.



PORT FLEET ESCORTS AURORA

The operation on towing cruiser Aurora from Kronstadt Shipyard to the place of her permanent mooring in Saint-Petersburg (the Petrogradskaya Embankment) was held at night on July 15/16

and involved three tugboats of PORT FLEET CJSC—the Leonid Bochkov, the Pavlovsk and the Tuman.

The Aurora returned to her mooring place after a two-year long repair at Kronshtadt Shipyard.

The Aurora was towed along the Seaway Canal and along the Neva River under the drawn spans of tree bridges—Blagoveshchensky, Dvortsovy and Troitsky bridges.

The vessel was followed by two tugboats of the Leningrad Naval Base (LNB) carrying the ladder and the facilities for safe mooring of the ship at the Petrogradskaya Embankment. Two more LNB tugs took part in the mooring operation.

All the tugboats involved in the operations were led by river pilots of the Volgo-Baltic Administration. Two pilots—river pilot of the Volgo-Baltic Administration and a sea pilot of Rosmorport—worked onboard the Aurora.



GAZPROM NEFT SHELF EXTENDS ITS FLEET

Gazprom Neft Shelf, Gazprom Neft subsidiary which develops Prirazlomnoye oilfield in the Pechora Sea, has extended its fleet with a new tug/supply vessel Aleut (flag of Russia, homeport—Kholmsk in

the Sakhalin Region).

The vessel has been built specially for the project on production of first Arctic oil and will execute the entire range of supply functions as well as technological/ecological standby functions.

The tugboat is designed for long-term operation in the Arctic under extremely low temperatures. The vessel's Icebreaker Ice 10 of Det Norske Veritas corresponds to Icebreaker 6 of Russian Maritime Register of Shipping. The ship is equipped with a dynamic positioning system.



EGA DELIVERED TO AZOV SEA

Azov Basin Branch of FSUE Rosmorport has acquired a new small size hydrographic vessel with inflatable sides, Project Nautilus 800, built by Special Boats

LLC (Vsevolozhsk, Leningrad Region). It is the third small size vessel of this project deployed by Azov Basin Branch of FSUE Rosmorport for surveying works at seaports of Azov, Rostov-on-Don and Taganrog. The other two vessels, MGK-2 and Rostovets, have been in operation for the sixth year. The advantages of such vessels are their operational efficiency and maneuverability allowing for considerable reduction of time needed for surveying and for maintenance of floating beacons in water areas of Azov, Rostov-on-Don and Taganrog. Hydrographic boat Vega was built in 2016. The vessel's key characteristics: vessel type—small size hydrographic vessel; class (according to State Inspection of Small Vessels)—O mc 2,0; length—8.4 m; breadth—3.1 m; depth—1.35 m; draught—0.55 m; main propulsion unit—235 kW; speed—33.5 knots; crew—2.

Marine Lubricants

Texaco in the ports of Russia and Ukraine



In 2011, Chevron Marine Lubricants Ltd. and Gazpromneft-CM signed a global agreement for the production and sale of lubricants for sea-going vessels. Thanks to joint cooperation marine lubricants of Chevron are available at the ports of Russia and Ukraine: Saint-Petersburg, Murmansk, Novorossiysk, Rostov-on-Don, Vladivostok, etc.



The range of marine lubricants:

- Diesel engine oils
- Hydraulic oils
- Turbine oils
- Gear oils
- Compressor oils
- Plastic lubricants
- Special oils

More information on purchasing and supply of marine lubricants in Russia and Ukraine is available at the office of Gazpromneft-CM branch in St. Petersburg

Address: 62, A, office 131, 3rd Line V.O., St. Petersburg

Tel.: +7 (812) 449-74-45 | Fax: +7 (812) 449-74-46





Denis Samsikov: «We offer bunker tankers that will meet the highest standards»

Russian shipyards are able to offer customers good ships. One of these vessels, a bunker ship with oil recovery equipment was recently built at Okskaya Shipyard. Denis Samsikov, Chief Operating Officer, Okskaya Shipyard (Okskaya Sudoverf) in an interview with PortNews Media Group told about main features of this vessel, the construction time, and the shipyard capabilities for the construction of oil tankers.

— **Mr. Samsikov, tell us about the new multipurpose bunker ship of 92800 project built at your shipyard and its particulars?**

— The ship was designed and ordered for Tuapse Commercial Sea Port, member of UCL Group. The design was developed by Volga-Caspian Design Bureau. This is our first experience in cooperation with them and we consider it a success.

The bunker ship will replace three vessel of Tuapse Commercial Seaport that will be decommissioned. The vessel can serve as a versatile collector of bilge and waste waters, a bunker ship and a skimmer. This universal characteristics of the new vessel allow the port to save money and improve ecological safety and the quality of service.

— **How long was the newbuild construction period and is it possible to slash the time for the series vessels construction?**

— We have built the ship within about a year. The shipyard has extensive experience particularly in such new projects. Actually, we'd be happy to deal with serial projects, but our level of technology, technical capabilities of our divisions engaged in pre-production and experience of production facilities enable us to build ships under various contracts, flagships with minimum increase in price as compared to the series orders. These are the realities of the

existing market and we are adjusting ourselves to them.

We are ready to reduce construction time, but it depends on the customer's requirements, financing terms, etc. There is a project, we understand how to execute it, the documentation is available as well as metal cutting application, so if we secure a repeat order for the same ship, we will build her faster. How quickly it is a question of specific negotiations and specifications of the vessel.

A virtue of our shipyard noted by our clients is a strict adherence to construction deadlines. The ship we are talking about was built ahead of the contractual deadline.

— **Is it possible to modify capabilities of this vessel?**

— Yes, this project is good because it can be varied, to outfit the vessel with one or the other equipment on board. It means it is possible to change capabilities of the vessel on the available hull.

— **What is the origin of materials and equipment used in the construction of this ship?**

— Metal and the hull are domestically produced, while her outfitting, equipment are imported ones. We don't have these products produced here as yet. As far as I know, the equipment suppliers are now looking for an opportunity to manufacture it locally, hope that our colleagues will succeed.

In addition, we are considering the possibility of cooperation on placement of imports substituting production on our production yards: we have a territory and infrastructure for this. Investors are interested in this and we have preliminary talks with them.

— Are there any state support or leasing schemes a company placing orders with your shipyard could enjoy?

— Our Customers enjoy all those (support) measures that are currently offered in Russia. Also we hope that a scrapping incentive (grants) idea will be implemented.

All the ships that we deliver to civilian customers, are being built under leasing schemes. Therefore, we have established a good cooperation with the State Transport Leasing Company (STLC) Sberbank Leasing and other partners. We are ready to provide our customers with support, including in negotiations with leasing companies.

— What is the warranty period of your ships. Do you offer service support?

— The warranty period is negotiated and may be 1 to 5 years, at the discretion of the Customer (this is all calculated).

We provide maintenance, repair service for all ships built at our shipyard, and we have no complaints from

customers. Fortunately, the quality of our vessels is high, and so the guarantee maintenance cost is not too heavy for the shipyard.

— What companies could be interested in such multipurpose bunker vessels? Are you ready to build bunker ships of other types?

— Ports in Russia are actively developing and I am sure that the port fleet upgrade is a serious problem, which we can really solve. So, our customers may include port service companies and bunkering companies. The latter can be offered not only a vessel of this project, but bunker ships that is fully compliant with the highest standards. The efficient cooperation with naval architecture and marine engineering companies allows us to handpick the design in the shortest time, make calculation and implement it.

— Construction of dedicated LNG bunkering ships is a new trend in the bunkering industry. Is your shipyard capable of building such ships?

— Actually, it is necessary to see the specific project, its parameters, do our capabilities allow us to do it (how big the ship is). But in general, I see no problem with that. The shipyard has experienced in building a wide range of ships: product tankers, chemical tankers. So I think that we can also handle these LNG bunkering ships.

TANKER'S GENERAL CHARACTERISTICS



Versatile bunker ship with oil recovery capabilities of Project 92800

Class: KM R2 AUT3 Oil Tanker (> 60 °C) (ESP) Oil Recovery Ship (> 60 °C) Bilge Water Removing Ship, Russian Maritime Register of Shipping.

Purpose: Transportation of marine diesel fuel, Hazard 3, IMDG Code (light grade fuels with a flashpoint over 60 °C), with a density of $\gamma = 0,82-0,86 \text{ t / m}^3$ and bunkering vessels with the product and collection of ship-generated bilge and waste waters. This vessel is equipped with oil recovery equipment and can be used for the recovery of oil from the water surface in case of spills, including diesel and fuel oil of different viscosity — Bunkering of ships, collection of bilge water and blackwater from ships, recovery of spilled products (MDO, HFO) from the surface of the water.

Area of operation: offshore and littoral areas within the boundaries designated by RS for each case.

Operation conditions: year-round operation in ice-free seas.

Architecture and Structure Type: Steel, single-deck, twin-screw (two Azipod propulsion units), oil tanker, oil recovery vessel with a double bottom, with a tank and stern double-deck superstructure, with a cargo handling gear in the cargo area, aft end, the aft engine room and a free fall lifeboat at the stern.

GENERAL DIMENSIONS AND PARTICULARS:

LOA	41.3 m
DWL	38.3 m
Beam	8.4 m
Depth	4.4
Draft molded	3.0 m
Cargo tanks, total capacity	400 m ³
Number of cargo tanks	6
Ballast tanks, total capacity	160 m ³
DWT	450 tonnes
Propulsion, main engine	2 x 339 kW
Crew	9
Speed	10 kn
Endurance, fuel calculation	10 days
Gross Tonnage	475 t



RUSSIA

EXPERT IN CONTAINER HANDLING EQUIPMENT

ZPMC RUSSIA offers port equipment, shipbuilding cranes, vessels and floating cranes, equipment for handling of bulk cargo, drilling rigs, oversized metal structures.



Photo: unique ZPMC system for simultaneous handling of three 40-foot containers

www.zpmc-russia.com

ZPMC manufactures over 10 types of container spreaders: quick-release spreaders for 2x20' containers, spreaders for single containers, rotating spreaders etc.

Over the years of its operation, ZPMC have supplied thousands of container loaders, port cranes, bulk cargo handling machines and other types of port equipment. ZPMC totally controls 76% of the world's market of container loaders and other port equipment (90% in the USA and over 80% in Europe). It is the largest manufacturer and the leading supplier of the ports of Shanghai, Hamburg, Rotterdam, Dubai, Singapore etc.



Who is half ice over?

Russia's programme on construction of a state-of-the-art icebreaking fleet is being carried out actively though not without delay. Further expansion of the programme is under consideration.

NUCLEAR PROSPECTS

Comprehensive development of the Arctic is only possible with the construction of powerful nuclear icebreakers complying with today's requirements on the canal width, icebreaking capability and the ability to operate in relatively shallow waters in the mouths of Arctic rivers. A 60 MW icebreaker (LK-60, Project 22220) with dual-draft capability was designed for that purpose.

Under the contract with FSUE Rosatomflot, Baltiysky Zavod shipyard (Saint-Petersburg) is building three nuclear-powered icebreakers of this project: Arktika, Sibir and Ural.

General characteristics of the vessels: capacity—60 MW, operational speed—22 knots (clean water), length—173.3 m (160 m, DWL), beam—34 m (33 m, DWL), depth—15.2 m; draft (DWL)—10.5 m / 8.65 m, maximum icebreaking capability—2.8-meter-thick ice; full displacement—33,540 tonnes; designated service life—40 years.

Each icebreaker will be powered by two RITM-200 reactors of 175 MW. The system was developed specially for this ship.

The icebreakers will be operated in deep waters of western Arctic areas (Barents, Pechora and Kara Seas) and in shallow waters of river estuaries (Yenisey's mouth and the Gulf of Ob).

The Arktika, lead icebreaker of Project 22220 was laid down at Baltiysky Zavod in November 2013 and launched on June 16, 2016. The Sibir, the first serial icebreaker of the

Project, was laid down on May 26, 2015. Keel-laying of the Ural, the second serial 60 MW icebreaker, was held on July 25, 2016.

The construction of the series is to be completed by 2020. Mooring trials of the lead ship Arktika will be completed in December 2017. Nuclear-powered icebreaker Sibir will complete the trials in December 2019, the Ural—in



December 2020.

The Captain and 10 crewmembers of the Arktika have been already defined. In 2018, the Arktika is supposed to assist tankers shipping liquefied gas under Yamal LNG project.

Meanwhile, to ensure round-the-year navigation in the Arctic, particularly at the high-latitude lanes, an icebreaker is needed to break through ice of more than 4 meters thick. Krylov State Research Center (Saint-Petersburg) has developed a concept design for such an icebreaker and has held the ice tank tests. The designing is to take about 3 years. The Leader-class icebreakers will be able to make a canal of up to 55 meters wide allowing for leading large convoys, hence the name. The canal of LK-60 is 34–36 meters wide and the escorted transport vessels should have a high ice class.

The ship is capable of performing a wide range of tasks. For example, it has a closed hangar and a large cargo platform. So the icebreaker can be used as a transport vessel. The construction is estimated at RUB75–80 bln. It is a considerable cost due to a high power of the icebreaker. Therefore the Krylov Center has proposed another version of the icebreaker which can make a 62-meter wide canal but has a power of 60 MW. This ship which has a multi-hulled structure can be fitted with any equipment intended for LK-60.

These two projects (Leader icebreaker and multi-hulled icebreaker) are not contradicting each other as they are intended for different purposes. Multi-hulled icebreaker would be more efficient for escorting convoys in the Arctic with the development of hydro-meteorological services, deployment of unmanned aircrafts, satellites, etc. This will allow for escaping ice ridges since such vessel cannot break through four-meter thick ice. However this icebreaker will ensure economically efficient speed of 10 knots in 2.5-meter thick ice. Such an icebreaker will cost RUB50–55 bln (LK-60 costs about RUB43 bln). By today a concept design has been developed for a multi-hulled icebreaker. Rosatom is highly interested in this project.

Russia's fleet of nuclear-powered icebreakers numbers 10 vessels.

DIESEL-ELECTRIC POWER

Apart from nuclear-powered icebreakers intended primarily for ensuring of navigation in extreme Arctic conditions, Russia needs less powerful diesel-electric icebreakers to ensure round-the-year access to freezing ports, mostly in the Baltic Basin.

First of all, it is a 25 MW icebreaker of project 22600 named Victor Chernomyrdin which was laid down in Saint-Petersburg on October 10, 2012. Under the contract, the icebreaker was to be completed in November 2015. Total cost of the ship is RUB7.94 bln (almost EUR200 mln). The delivery to Russian customer, FSUE Rosmorport, was initially scheduled for December 2015. Yet, the construction was considerably delayed due to design miscalculations and rouble devaluation. Therefore, Rosmorrechflot (Federal Marine and River Transport Agency) went to court to make United Shipbuilding Corporation pay more than RUB600 mln of fine.

According to the latest data, the icebreaker's hull is to be launched for further outfitting in October 2016. The delivery of LK-25 is now scheduled for late 2017. As of July 1, 2016, technical readiness of the icebreaker was estimated at some 39.2%.

The ship is to be used as an auxiliary vessel for escorting convoys in challenging ice conditions at the Northern Sea Route or for independent assistance to vessels in shallow Arctic areas, and in estuaries of rivers, for helping to unload cargo on land-fast ice, for towing ships and other floating constructions in ice and in plain water, for expeditor voyages, firefighting at vessels and oil-extracting platforms.

Besides, Vyborg Shipyard was contracted to build three 16MW icebreakers (LK-16). The Vladivostok, the lead vessel of the series, was delivered to the customer in October 2015.

The first serial icebreaker, the Murmansk, was handed over in December 2015. The serial icebreaker Novorossiysk was launched in late October 2015.

As of July 1, 2016, technical readiness of the Novorossiysk was estimated at about 88%.

This project icebreakers are able to sail in the 1.5-meter-thick ice. The vessels can escort independently large-tonnage merchant ships, provide towing services and assistance to stricken ships, fight fires at floating vessels and other facilities, transport cargoes.

Apart from line icebreakers there is a plan to build port icebreakers for the development of Arctic fields. Port icebreaker of Project AkerARC (AARC) 124 is to be deployed at port Sabetta. Krylov State Research Center is currently taking part in development of Aker ARC124 technical design carried out by Aker Arctic Technology Inc. (Helsinki, Finland). Krylov Center is designing ship's service and power plant systems. The icebreaker will have the following characteristics: length—89.5 m, breadth—21.3 m; draught—6.5 m; capacity—12 MW, class—Icebreaker7. Vyborg Shipyard is to complete the vessel in 2018. To ensure navigation at port Sabetta there is also a plan to build an icebreaking tugboat and three ice-class tugboats.

Special attention should be paid to an icebreaker intended for RF Defence Ministry. The icebreaker named Ilya Muromets built for RF Navy's Northern Fleet was launched on June 10, 2016 at Admiralteiskie Verfi shipyard in Saint-Petersburg.

The Ilya Muromets is the lead icebreaker of Project 21180 supposed to break through ice of up to 1 meter thick. The icebreaker's displacement is 6,000 t, cruising range—up to 12,000 miles, endurance—up to 60 days.

The ship laid down on April 23, 2015 for RF Navy is the first icebreaker in Russia fitted with Azipod propulsion units housed in a submerged pod outside the ship hull and able to rotate 360 degrees about the vertical axis, thereby providing greater hydrodynamic and mechanical efficiency, enabling the ship to sail freely both forward, backward and sideways.

The icebreaker designed by DB Vympel is a new generation vessel with new concepts of electric power and propulsion system.

General characteristics: length overall—85 m, breadth overall—20 m, depth—9.2 m, draft overall—7 m, speed—15 knots, icebreaking capability—1 m, endurance (fuel / stores)—30 to 60 days, crew—32, capacity—500 tonnes, cargo deck area—380 sqm, cargo hold—500 cbm, waste oil storage tank—300 cbm.

A series of four icebreakers of this type is planned for the future.

So, it can be stated that Russia has passed from words to deeds in its Arctic development. Yet, future construction of icebreakers will depend, first of all, on the development of Arctic fields and general viability of that development amid the low prices for hydrocarbons.



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Russia,
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Fax+7 (42331)50-234
E-mail: in@seampbt.ru**

<http://seaport-troitsa.ru>





Rosmorport expands its dredging fleet

Domestic dredging fleet is needed to ensure operations at numerous water areas of Russia. Taking into account the significance of up-to-date expansion of Russia's dredging fleet, FSUE Rosmorport will take the delivery of four new dredgers in 2016 to ensure up to 60% of maintenance dredging with the use of its own facilities without subcontractors.

FIRST SERIES

A Damen Trailing Suction Hopper Dredger (TSHD) 1000 was launched at the Krasnoye Sormovo Shipyard on 29 January, 2016. The TSHD, named Sommers, is the lead vessel of a series of three TSHDs 1000 being built for Rosmorport. In June the shipyard launched the Kronshlot, the second vessel of the series.

The shipyard is on schedule to deliver all three TSHDs, Sommers, Kronshlot and Kadosh, in summer-autumn 2016. The vessels will perform maintenance dredging in the basins and access channels of the ports of Ust-Luga, Big Port St.

Petersburg and Tuapse.

Commenting on the launching of the lead ship of the series, Nikolai Zharkov, Director General of Krasnoye Sormovo, said: "Dredging vessel of such specifications has been built for the first time in our country. There are lots of rivers and lakes in Russia so such vessels are in high demand".

The contract between Rosmorport and Krasnoye Sormovo shipyard was signed in April 2014 with the assistance of MNP Group. Keel-laying of the lead ship was held in November 2014.



The TSHD1000 was designed by Damen Shipyards Gorinchem, Dutch company specializing in designing and building dredging vessels.

DREDGER FOR ARKHANGELSK

Apart from vessels of domestic origin the fleet of Rosmorport was expanded with TSHD Severnaya Dvina built at Danang, Vietnam based Song Thu Corporation's Song Thu Shipyard. The flag of the Russian Federation was raised at the ship in the middle of July 2016.

Rosmorport is going to use the dredger for maintaining the specified depths and ensuring safe navigation in the water area and at the approaches to the seaport of Arkhangelsk.

Damen tailored the TSHD2000 design to meet the high specifications required to operate the vessels in the severe weather conditions with air temperatures ranging from $-35\text{ }^{\circ}\text{C}$ to $+40\text{ }^{\circ}\text{C}$.

TSHD Severnaya Dvina was laid down in November 2014 and launched in November 2015. Setting-up and adjustment of the vessel's dredging equipment as well as water tests were completed by May 2016.

HOPPER BARGE

Onega Shipyard is also involved in expansion of Rosmorport's fleet. On February 19, 2016, it laid down the lead self-propelled hopper barge of Project HB600 with hopper capacity of 600 cbm.

Andrei Lavrishchev, Executive Director General of FSUE Rosmorport, said at the keel-laying ceremony that the shipyard "never felt sorry for being owned by FSUE

Rosmorport".

According to him, Rosmorport needs 7–10 vessels of this class, yet, the decision on expansion of the series will be made after operational experience is accumulated.

Vladimir Maizus, Director General of Onega Shipyard, told in his turn about unique innovative solutions of the vessel designed by Spetsstudoproekt CJSC. All vessels of the series will be equipped with two rudder propellers, main engines will be placed on the deck.

The self-propelled hopper barge is intended for ensuring designed depth at the southern ports of Russia and smooth operation of Rosmorport's dredging fleet. The barge will transport dredged material.

As a summary, we would note that the scope of dredging planned by FSUE Rosmorport for 2016 is to total 23.8 mln cbm including 11.8 mln cbm of major dredging and 12 mln cbm of maintenance dredging. 6.1 mln cbm of maintenance dredging is to be performed without subcontracting. It should be emphasized that efficiency of the company's own dredging fleet is 1.5–2 times higher as compared with that of subcontractors'.

Dredging works are planned at port Sabetta (68.6 mln cbm in 2014–2017), Bronka (10.4 mln cbm in 2014–2017), Kaliningrad (1.5 mln cbm), Vanino (coal terminal at Muchke Bay (1.5 mln cbm in 2017–2019), Sukhodol (7 mln cbm in 2017–2021), Kozmino (0.32 mln cbm in 2015–2016), Taman (45.4 mln cbm in 2017–2030). It is obvious that design depth can be ensured in water areas of the ports only with the use of state-of-the-art dredging fleet.



Unusual logistics

Infotech Baltika JSC, one of Russia's leading logistics companies, tells IAA PortNews about heavy cargo transportation by inland water ways of Russia.

Many large-scale projects in Russia are being implemented in hard-to-reach areas. Delivery of oversized cargo to such places is a task with a set of variables and non-obvious solutions. Each delivery is a separate complicated project. Infotech Baltika JSC, one of Russia's leading logistics companies, tells IAA PortNews about the process of finding logistic solutions for transportation of heavy equipment by river, sea and land transport along the inland water ways of Russia.

Infotech Baltika JSC has been involved in organisation of project cargo deliveries for about 20 years with the last 5 years seeing intensified activities in this field. Infotech Baltika was invited to provide logistics solutions under oil and gas projects of OMZ OJSC for shipping of oversized heavy equipment (OHE) to Rosneft, Tatneft, Atomenergomash and other customers in different regions of the country.

Infotech Baltika is currently busy with delivering OHE for Omsk Refinery JSC under agreement with Gazpromneft Omsk Refinery JSC. This logistic task is quite specific with the equipment produced at several facilities both in Russia (Volgogradneftemash OJSC, Izhorskiye Zavody PJSC and Atommash Volgodonsk branch) and in China (Sinopec). In view of the climate conditions at the Northern Sea Route, the delivery to Omsk depends on certain criteria and limited period of time before ice formation starts on the Irtysh river.

Logistic scheme is developed in advance while the delay of the plants' supplies is not excluded, hence the risk management is required.

The delivery involves different means of transport. The above mentioned production facilities are located along the inland water ways of Russia, their equipment is delivered to the river berths by wheeled vehicles and then loaded by cranes or Ro-Ro method. Then the oversized heavy equipment is transported by barges to the port of consolidation in Saint-Petersburg.

For example, the reactor equipment scheduled for transportation was delivered from the workshop of Izhorskiye Zavody PJSC to the berth in Ust-Slavyanka on the Neva river and was placed on special transport stands for waiting of further loading onto the vessels. The transportation of 6 reactors was carried out simultaneously in one convoy. During the transportation the crossing of two railways (including high-speed section between Kolpino and Slavyanka) of Oktyabrskaya Railway was arranged. Both railway crossings were specially equipped to bear heavy-lift transport carrying reactor equipment.

Transportation by inland water ways to Saint-Petersburg involves the barges of North-Western Shipping Company and other ship owners of Russia, river and sea going tugboats. The cargo consolidated in Saint-Petersburg is then loaded onto the HHL Rio De Janeiro (Hansa Heavy



Lift) which transports the equipment across the Baltic Sea, around the Scandinavia and along the Northern Sea Route to the Gulf of Ob. With its ice class, the heavy lift ship applies for icebreaker assistance only in special cases as this increases the shipping costs considerably. The Northern Sea Route can be used for such transportation only from mid-July (western lanes). In the Gulf of Ob the cargo is re0-loaded again onto river barges.

Direct delivery of an atmospheric column by Articulated Tug Barge unit was arranged the same time from the berth of Volgogradneftemash OJSC along the White Sea—Baltic Sea Canal and the Northern Sea Route to Omsk.

Equipment from China (reactor and columns for oil processing) was loaded in Shanghai onto the sea going crane ship Mirabella (Jumbo Shipping). Then the cargo was delivered across the Bering Strait and along the Northern Sea Route and then transhipped onto barges to be delivered to Omsk. Eastern lanes of the Northern Sea Route are open for shipping from late August.

All phases of heavy cargo delivery required the development of special engineering projects. They were developed by Infotech Baltica specialists with the involvement of the leading specialized organisations.

Transshipment of equipment in the Gulf of Ob is performed at the offshore terminal amid the deficit of berth infrastructure. The barges intended for transportation of heavy equipment have been refitted so that Ro-Ro method of unloading could be applied. Transshipment in the Gulf of Ob implies careful consideration and arrangements including the delivery of required mounting material, arrangements to accommodate and upkeep the rigging crew on board the supply ship.

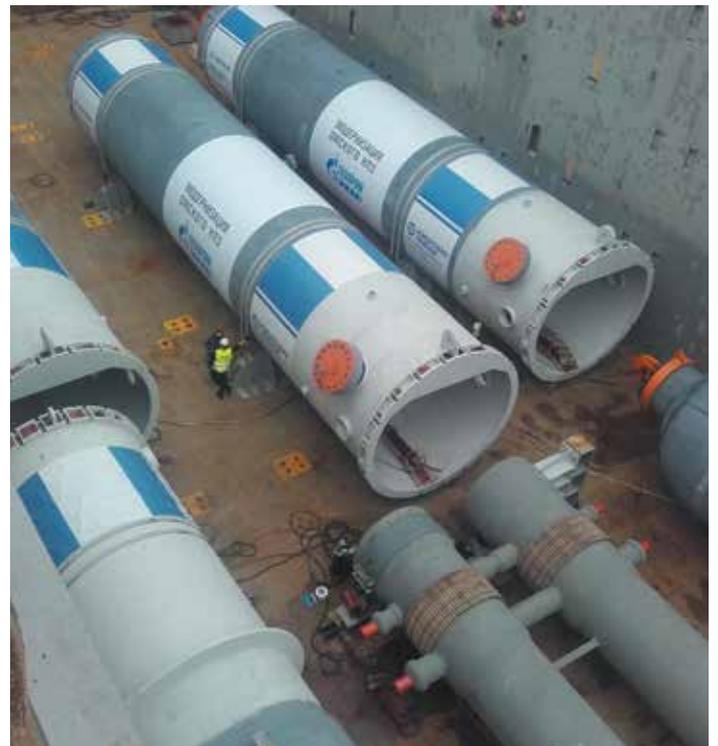
To roll out the equipment from barges in Omsk, a dedicated Ro-Ro berth is used with a separate engineering project developed for each batch of equipment weighing 100 to 600 tonnes. Otherwise, there is a risk of barge damage. Then the equipment is transported by wheeled vehicles of modular type. The route of the land vehicles is considered in advance to ensure absence of obstacles.

The project for Omsk Refinery totally implies transportation of 8 heavy equipment units from China, and 17 units of Russian origin including an atmospheric column by inland water ways of Russia.

Infotech Baltica JSC is planning more projects on shipment of heavy equipment in 2017, each of them is a unique project requiring specific logistic and engineering solutions.

Vitaly Chernov

The article has been published in the latest edition of edition of "PortNews. Port Service." journal.





Dafydd Evans: “In Russia, we see the enthusiasm and determination to get new projects underway”

DEME Group represented in Russia by Mordraga LLC is among the leaders of dredging industry. In his interview with IAA PortNews, Mordraga LLC General Director Dafydd Evans tells about the prospects of operation in the Russian market.



– Mordraga aims to be the partner of choice for potential clients within the Russian Federation seeking a Contractor with dredging, marine and offshore, fluvial & marine aggregates, environmental, land reclamation and project development capabilities and expertise?

– We consider each potential project in Russia to be unique with its’ own specific goals and objectives. In accordance with these goals we form a team of experts to develop an action plan and offer our clients the opportunity to work with us to design the package that meets their individual requirements.

Our goal is to provide professional and helpful services with added value and we are always open to discuss any of clients’ ideas and suggestions.

We speak the language of experience.

– What do you think about the prospects of the Russian market?

– DEME has been operating in the Russian Market for over 15 years now, more than 10 of which have been under the Mordraga Flag. In that time we have undergone substantial growth to achieve the enviable position we are in now as a market leader within our sector. In that time Mordraga has been involved in Projects across the vast territories which make up the Russian Federation from Sochi in the South to Yamal in the North; Kaliningrad in the West and Sakhalin in the East. Our track record, such as our recent involvement with Projects such as Artic Loading Terminal and Yamal LNG has allowed us to showcase our capabilities. Being part of the DEME Group means we benefit from the availability of an extensive, modern fleet, solid financial resources, highly qualified personnel, as well as specialized equipment and technology. We therefore believe that we are well suited to meet the ambitious prospects which our Russian Clients have set about achieving. Infrastructural Projects, such as those related to the 2018 World Cup. The development of

Industrial and Commercial Port facilities as well as those in the oil and gas sector, whilst experiencing some delay, as a result of the slump in the market, are still very much on the drawing board and we see the enthusiasm and determination to get them underway.

– Have you attracted any partners this year?

– Our pursuit of partners is continuous, whether it is like minded to Contractors with complimentary facilities or service providers. We have made and continue to make a number of associations which when matched, we believe can and will offer unique solutions to our clients. Our association with Admiral Makarov State University of Maritime and Inland Shipping continues and we are keen to see further cadet trainees on our vessels in upcoming projects. Similarly our association with the specialist design consultants in the field of our operations is ongoing.

– What is your opinion about Rosmorport’s striving for construction of its own dredging fleet? How efficient can it be in this sphere?

– Mordraga welcomes and supports Rosmorports’s and indeed Rosmorrechflot’s initiative since it is our belief that the dredging industry is a vital component to the success of any nation on the global stage. Rosmorport is not merely striving for construction—Rosmorport has actually taken delivery of a number of new dredgers and more are to come. My personal opinion is that, if you are speaking now about the sphere of Rosmorport’s dredging fleet, it is first of all related to Rosmorport’s mission to maintain federal property like the water areas and the channels at Russian seaports for safe navigation. To evaluate efficiency in this sphere you also need to take into account type and number of required dredgers, and available budgets. Do not forget that Russia has some 70 seaports, located on the coast of 12 seas in very different climatic zones and different cargo turnover. In addition to maintenance Rosmorport also has ambitions to develop their Port infrastructure so in short, I believe Rosmorport will be successful and we are committed to assisting them realise their goal.



NOx emissions as a headache for shipowners

In line with MARPOL Annex VI NOx emissions from ships limits will be reduced by at 80% in designated emission control areas, or NECAs has been effective as from January 1, 2016. North American ECA designated for NOx comprises most of the USA and Canadian coast and the U. S. Caribbean ECA, including Puerto Rico and the US Virgin Islands. There is a possibility to designate the Baltic and North Sea as new NECAs. Russian experts say this will likely entail a significant surge in costs for shipowners due to the absence of reliable technological solutions.

The introduction of Tier III standard to reduce emissions of nitrogen oxides (NOx) Tier III requires the equipment of vessels with special systems that reduce these emissions to the required level. And here we encounter two key problems: the first is the high cost of such equipment, the second is the absence of reliable technological solutions at a given time.

Andrei Zhmuko, a representative of the SCF Group's Engineering Centre, participated in the conference on the implementation of the «road map» for simultaneous designation of the Baltic and North Seas NOx emission control areas held in May this year. He said that the construction of an Aframax tanker complying with the Tier III NOx standards, will be 16% to 22% more expensive than conventional Aframax tanker (\$60 million). The expert noted that the current NOx reduction technology to Tier III standard level has not yet been thoroughly tested and still has significant deficiencies (which has been proven by its operation). The introduction of these technologies will require either support of shipowners by government or an appropriate extra charge in charter rates.

Besides the cost of newbuilds operating costs will likely grow as well. For example, Lev Novikon PhD in Technical Sciences, Editor-in-Chief of the scientific and technical journal Propulsion Engineering believes that the introduction of Tier III standard may lead to increased operational costs for shipowners by 25 to 40%. Regretfully, he said, the industry has not developed well-proven technology so far, which would ensure reliable multi-mode operation of the engine compliant with Tier III requirements.

Alexander Punda Professor at Admiral Makarov State University of Maritime and Inland Shipping, who was speaking at the Conference on Baltic and North Sea NECA Roadmap adds that implementation of Tier III standards involves a number of technological and environmental risks. The expert says that using SCR technology for NOx reduction while sailing in high seas can cause the failure of shipboard systems. In addition, this technology turns out to be inefficient in low-load operation (slow steaming) for fuel savings and while maneuvering in ports. Also, the use of this standard leads to an increase in CO2 emissions, which is contrary to the requirements to improve the ship's EEOI.

Dr Joseph McCarney of the International Association for Catalytic Control of Ship Emissions to Air (IACCSEA) said at the conference that there were some cases (while using the SCR technology) of calcium sulfate fallout on ship's deck. There is also a problem with the disposal of spent catalysts containing hazardous substances.

As Lars Robert Pedersen, Deputy Secretary General of the Baltic and International Maritime Council (BIMCO) said in an interview with IAA PortNews the introduction of Tier III standards for reduction of NOx emissions from ships does not constitute a serious technological problems. He believes that the manufacturers of these systems are to ensure stable operation and the available equipment and technologies in this area have been used for a long time.

The use of alternative fuels, such as liquefied natural gas (LNG), could be a possible solution to the technological difficulties. According Aaron Bresnahan, Vice President, Sales, Wartsila Marine Solutions the Wartsila 31 engines fully comply with the IMO Tier III standards when running on LNG with no exhaust post-treatment equipment.

MAN Diesel & Turbo also has manufactured MAN B & W 6G60ME-GIE running on ethane that will also be IMO Tier III NOx compliant.

However, it is well known, that using alternative fuels also has its pros and cons. One of the major drawbacks today is the lack of appropriate infrastructure. So there is no need to rush to implement Tier III standards.

ЗОНЫ SECA И NECA



Yuri Kostin, Deputy Head, Rosmorrechflot comments:

— Of course, we understand that the health of people is of utmost importance and that have to work to reduce emissions, which is particularly important in port areas and areas of heavy traffic. We also understand that we'll see the first results of NECA's designation twenty years from now, taking into account that the Tier III standard applies only to newbuilds. However, we believe the most important, we must be sure that the effective standards are achievable that the shipping could, at reasonable cost, to comply with them.

And the second point: we believe that we should approach the issue comprehensively, while imposing new regulations, i.e. take into account whether the new waste is generated in applying certain technologies, where and how the waste will be disposed, etc.

In this regard, we believe that designers and manufacturers of marine equipment play a significant role in the implementation of Tier III NOx emissions standards.

A clear signal must be given to the industry to expedite developments of required solutions, so that international shipping would be ready by 2021 to comply with requirements of Tier III NOx emissions limits from ships.

We need to be confident that when Z-hour comes the owners will not be left alone with virtually half-baked technologies.



Will ethane ever become a standard?

The global shipping industry seeks to find alternatives to conventional marine fuels. One of these alternatives is ethane. In 2016 the first world's engine certified to run on ethane was completed. Experts note that there are some pros using ethane as marine fuel but significant cons as well.

Mitsui Engineering & Shipbuilding Co., Ltd. (MES) announced on 29 June that they have completed the world's first ME-GIE ethane-operated two-stroke diesel engine.

The Mitsui-MAN B&W 7G50ME-C9.5-GIE is the first engine in a series of three for installation in three LEG (liquefied ethylene gas) carriers of 36,000 m³ for Hartmann Schiffahrt of Germany and Ocean Yield of Norway, being built at Sinopacific Offshore Engineering (SOE) in China.

Ethane was chosen as fuel, in preference to HFO, due to its more competitive pricing as well as the significantly shorter bunkering time it entails. As a fuel, its emissions profile is also superior to HFO and compared to HFO contains negligible sulphur and 15–20% lower CO₂.

MAN Diesel & Turbo also verified methane operation on this engine type and states that the ME-GI engines will be set up such that they can easily be converted to run on methane as an alternative, as per the owner's wish.

MAN Diesel & Turbo has tested this type of engine and when operating on methane. The company argued that the engine installation technology class ME-GI will allow for rapid modification by the wishes of the shipowner to use methane as an alternative fuel.

MAN Diesel & Turbo currently has eight ME-GIE engines on order.

An ME-LGI counterpart that uses LPG, methanol and other liquid gasses is also available, and has already been ordered, the company said.



Advantages and disadvantages of ethane as a ship fuel and the prospects for its use commented in his interview with IAA PortNews Anton Lutskevich, Principal Engineer, Civil Ship's System Integration Department and Marine Equipment Krylov State Research Centre:

The search for commercial use in new segments and potential consumers of ethane seems to be associated with (on domestic fields as well) depletion of the gas fields, where high-quality dry gas is produced (ie, with low hydrocarbons heavier than methane), and the transition to the development of previously considered less promising fields, containing the so-called wet gas, containing 5.3% or more of ethane. Since the natural gas transportation technologies applied today are focused primarily on dry gas, it is necessary to separate ethane in the process of gas conditioning and

dispose it somehow. Ethane is separated from petroleum gases and its transportation is possible either in compressed form or as a cryogenic liquid (i.e., causes a big problem) and there is not yet any pipeline network (similar to the natural gas, methane transportation infrastructure) available for its transportation and is not foreseen.

Ethane is considered a valuable raw material for the petrochemical industry (in particular, for the production of the current generation of Euro 5 and above). Ethane has been tested as an automotive fuel and fuel for permanent power plants.

Compared with conventional blends of liquid petroleum fuels ethane provides (subject to several nuances) approximately the same advantages as that of methane (natural gas).

Compared with methane (which is now let limited, but is used as bunker fuel for ships in the form of liquefied natural gas (LNG), compressed natural gas or LNG cargo vapors gas carriers) ethane has a number of advantages and a few drawbacks.

As compared to natural gas ethane has yet another advantage: excellent detonation resistance (octane No 125 against methane's No 110); higher calorific value (heat combustion—64.5 MJ / m³ versus 35.9 in methane); higher density (in liquefied form—0.546 t / m³ vs 0.416); a higher boiling point (– 88.6 C° vs.—161 C°); more necessary quantity of air for combustion (16.66 m³ / m³ vs 3.52); and a number of other pros.

At the same there are some fundamental cons to be considered before using ethane as bunker fuel for water transport. The point is that methane bunkering procedure is based on appropriate safety regulations developed by IMO: IGC Code, provisional guidelines IMO MSC.285 (86) for LNG-fueled ships, coming into force IGF Code, and international and national regulations based on them.

Ethane is a different story. The Code IGC directly prohibit the use in LNG carriers propulsion units of boil-off gases other than methane. Over time, a corresponding appendix might be added to the the IGF Code, but for now it is only

methane considered as such bunker fuel.

Besides, ethane density roughly corresponds to the density of air. Therefore, if ethane leaks it will not rise as methane, and will not sink as the other vapors of alternative fuels, but will remain in the area of leakage, the worst situation for the engine room ventilation and in general for accumulated dangerous gas volume. In combination with a much lower concentration required for the formation of an explosive mixture ethane produces a much greater danger of an explosion than methane. Accordingly, the machinery spaces equipment and rooms where ethane leakage is possible (ventilation system, gas detection and automation systems, inert gas systems, additional screens, explosion-proof electrical equipment, etc.) will be a lot more expensive.

It is important that there is no available logistics network that would allow bunkering vessels with ethane, and such projects are not even considered.

It is worth mentioning that the combustion of ethane versus methane cause release of slightly more carbonic acid, which degrades EEDI of the vessel, but compared to the other disadvantages it is not very important.

Thus, it is possible to draw the following conclusions:

The use of ethane as bunker fuel for water transport currently is not possible (due to lack of regulatory and logistical support) and inappropriate (due to considerable complexity and the high cost of adaptation of marine fuel consumers to ethane). Therefore, today it seems more reasonable to consider ethane as a valuable product for the petrochemical industry or as fuel for large stationary power consumers, but in the context of water transport only as cargo.

When the necessary regulatory framework will be prepared expediency of using ethane as bunker fuel on water transport will be determined by its competition with other fuels. If the price of ethane helps cut operating costs of the vessel (taking into account the increased depreciation and related expenses) compared with other types of bunker fuels and logistic availability of ethane does not restricts vessel operations, the ethane future will be more promising.





Slow development of LNG projects

So far, Russia has made little progress in the development of infrastructure for LNG bunkering. In fact, there is no infrastructure at all and it is not to appear soon as implementation of most projects is delayed.

GAZPROM'S PROJECT

Long expected and widely announced project Baltic LNG on construction of an LNG plant at the port of Ust-Luga (with part of LNG intended for bunkering) is still standing over.

In the middle of June 2016 Gazprom and Royal Dutch Shell signed a memorandum of understanding on the Baltic LNG project. The plant is now to be put into operation by the end of 2021. The document provides for looking into a possibility and prospects of the construction.

Gazprom head Alexey Miller earlier said that the decision on investments into the project would be made in the middle of 2016.

The project on construction of an LNG plant in the Leningrad Region is focused primarily on the European markets. The Latin America is also among the targets of the project as it demonstrates an interest in expansion and diversification of LNG supplies.

Besides, there is a plan to use LNG produced by the plant for gas supplies to the Kaliningrad Region, as well as for bunkering and small-scale supplies in the Baltic region.

The plant is to have a capacity of 10 mln t per year with a possibility of expansion to 15 mln t per year.

As for the progress of Gazprom's project Vladivostok

LNG, there is no news except for the information that it has been excluded by the Company from the list of its priorities. Viability of the project was previously questioned by the analysts.

Nevertheless, Gazpromneft Marine Bunker LLC is going to put into operation its first LNG bunkering tanker in the middle of 2019. The tanker's capacity will be 3,000 cbm,





draught—4.5 m, ice class—1B. The vessel will operate in the North-West Region of Russia.

PECHORA-LNG

Pechora-LNG project has moved forward a little. In December 2015, Rosneft and Alltech Group completed establishment of a joint venture for the development of two fields in the Nenets Autonomous District—Kumzhinsky and Korovinsky fields.

The company will serve as a basis for creation of a new hi-tech center of gas production in the Nenets Autonomous District (NAD). The center is to implement different projects on gas production, processing, marketing and supply to end users. The project provides for the development of infrastructure for gas transportation, construction of a gas processing facility, an LNG plant and a shipment terminal at Indiga settlement. Implementation of Pechora-LNG project will make NAD more attractive for investors, generate new jobs and boost tax revenues to the budgets of all levels.

The project foresees the sale of the end product in the domestic market and the expansion to the global LNG market in the future. The latter is possible with the amendments introduced into the federal legislation. A draft law has been proposed for consideration at the State Duma to amend the Law on Gas Exports. With those amendments Pechora-LNG project could become an LNG exporter.

CRYOGAS VYSOTSK

Initially, construction of an LNG plant at the port of Vysotsk allowing for supplying LNG as bunker fuel was to begin in February 2016. Investments are estimated at RUB50 bln. Production capacity of the terminal will be 660,000 t of LNG per year. Project investor—Gazprombank. Yet, this project is also delayed.

The project passport was signed only in June 2016. The document covers key phases on the project implementation: from obtaining the permit for construction to commissioning of the facility. Leningrad Region Governor will personally control the project implementation. Cryogas project is included into the list of pilot projects for introduction of project management into the Leningrad Region Government authorities.

The project completion was expected in 2018. Perhaps, the deadline will be postponed due to later beginning of the construction.

LNG-GORSKAYA AND BUNKERING AT BRONKA

LNG-Gorskaya LLC is involved in the project on creation of an LNG company with its own fleet to deliver LNG to European consumers and to bunker vessels in the water area

of the Gulf of Finland.

The project implies the construction of a floating LNG plant with annual capacity of 1.26 mln t of LNG, 9 bunkering tankers, pier, loading rack and gas pipeline, as well as the creation of several LNG terminals outside Russia: in Finland, Germany and Sweden.

Liquefied natural gas will be produced by a complex assembled on a non-self-propelled barge. The plant will be able to process 1.968 bln cbm of gas per year. LNG-Gorskaya LLC is going to put the complex into operation and to start selling LNG in late 2017. The project is to become fully operational in 2021.

In February 2016, LNG Gorskaya said it was going to build a non-self-propelled barge with an onboard re-gasification plant for selling LNG Gorskaya product when deployed in a European port. The Company says the barge of 7,000 cbm in capacity will be built by Maris LLC which has already developed the conceptual design of the facility. The barge of 125.8 m in length, 24 m in width and 8.6 m in depth will have on its deck 12 tanks with the capacity of 584 cbm each.

In May, LNG-Gorskaya told about its negotiations with a well known shipping corporation based in Germany on organisation of a new ferry service between Hamburg and Saint-Petersburg (Bronka terminal) with new vessels operating on LNG. 17 high-speed passenger ships able to accommodate 300–400 passengers each are to be built in 4 years. The vessels are supposed to be bunkered by LNG Gorskaya at Bronka terminal.

In June 2015, LNG-Gorskaya LLC signed a contract with the United Shipbuilding Corporation (USC) on building three LNG bunkering tankers with the capacity of 7,300 cbm each. The contract is valued at RUB5.67 bln. The contract term is 22 months. The option under the contract provides for the construction of additional six LNG tankers.





Bunkering requires state expertise

The Department of the Federal Service for Supervision of Natural Resources (Rosprirodnadzor) in the North-West Federal District monitors compliance with applicable environmental legislation and responding to potential environmental risks. Oleg Zhigiley, head of the Department highlighted the agency accomplishments in the first half of 2016.

— Mr. Zhigiley, what were main achievements of your department in the first half of 2016. How many oil spills were there, what companies were responding to emergency spills and what penalties were imposed on those responsible?

— The Department of Rosprirodnadzor in the North-West Federal District carrying out within its legal authority state maritime supervision in the first half of 2016 has held six scheduled on-site inspections, 40 random compliance inspections to check how previous violations were eliminated. In addition, the inspectors conducted 37 field inspections to prevent, detect and respond to possible breaches of the requirements for the protection of the Gulf of Finland.

I'd like to note that from January through June our agency recorded three oil spills. All of them occurred while bunkering vessels in the basin of Big Port Saint-Petersburg.

The first incident occurred in April of this year. The MV Smyril Line Agency was responsible for releasing 0.15 cbm of oil products into waters. In May, the MV Flanders of NT Bunkering violated the safety requirements for bunkering that resulted in oil pollution of the area. We could not determine exact amount of spilled products, since the state inspectors were informed about the incident after the recovery of spilled oil had been completed.

Another spill incident was registered on 2 June. According to the Port Authority's report, the spill took place while refueling the oil tanker Narva.

Currently state inspectors continue to investigate into cases of administrative offenses. Those who failed to comply with the requirements for protection of water basins will be brought to justice.

Overall, in the first half of 2016 the department of maritime supervision of the Department of Rosprirodnadzor imposed on violators fines totaling 60,000 rubles. Part of the cases filed in the first half of the year are being reviewed.

State inspectors of the Department collected from offending parties fines in the amount exceeding 200,000 rubles. The budget received 300,000 rubles for oil spills that occurred in 2015.

The amount of penalty for water pollution imposed on the perpetrator of the incident, on average was ranging 100,000 to 2.5 million rubles.

It is worth noting that in the same period a year ago there were two registered oil spills also related to violation of the safety requirements for bunkering operations.

— What were the offenses relating to bunkering and oil products transfer the Department is facing when it conducts supervision of maritime facilities subject to federal environmental control on the territory of St. Petersburg and Leningrad region and in Murmansk, Arkhangelsk and Kaliningrad regions? Did Rosprirodnadzor file claims with the court against companies to collect fines and damages for breaching environmental legislation?

— Bunkering operation is potentially harmful to the environment, since it is related to transportation and transfer of oil products. The Department experience in control and supervision shows that the majority of spills occur during bunkering operation.

Violations are committed both by Russian suppliers and their counterparts from other countries, operating in the Gulf of Finland.



Only 1% of oil spill cases were due to technical failures and 99% entailed from errors and negligence of personnel. Most explanations of the incident reasons we heard from those responsible for bunkering process and control of the procedure, were «didn't hear the signal», «did not see», etc.

However, there were other violations identified in the course of target inspections of bunkering companies on behalf of Russian President in 2014–2015. Overall, we conducted audit of 21 bunkering companies in the North-West Federal District in the waters of the Baltic and Barents Seas.

Violations were primarily related to performing operations without the state environmental seal of approval, or failure to comply with records keeping requirements, the documents that had received a positive opinion of ecological expertise.

Also, state inspectors logged violations when bunker suppliers operated without any water use agreement, did not have approved standards for waste accumulation and wastes disposal limits, emitting harmful substances into the air without proper authorization; did not reimburse environmental damages; misinformation, etc.

Following the inspection results we issued 53 instructions to rectify the above violations and imposed on violators fines of about RUB2 million.

It should be noted that the absence of environmental seal of approval for execution of bunkering is the most common violation. The requirement of EIA is not a formal document, but a document that allows minimizing the negative risks to the marine environment, because the EIA commission establishes compliance with the proposed activity with environmental requirements.

Rosprirodnadzor did not file claims as the orders on instituting administrative actions have not yet been challenged by offenders.

— How do you evaluate state-owned enterprises work in oil spill recovery, how quickly did they respond, what is their fleet, equipment condition, is it enough?

— The Department can evaluate work of companies, how they respond to spills only during exercises which are held to test their knowledge, OSR plans in practice.

Oil spill response drills help develop the scenario, make

the simulated situation much closer to a reality. When the inspectors attend the exercises, they can assess the resources available for containment and recovery of oil spills, the order of interaction of the organization personnel and deployed fleet and the level of available equipment and training.

In the first half of 2016 we took part in the exercises held at Big Port St. Petersburg and in two exercises hosted by bunkering companies Saturn and Delta LLC. Inspectors concluded that the teams involved in the simulated spills and response acted professionally and in accordance with the requirements and the personnel and equipment engaged in the drills were sufficient.

— How do you see the further improvement of nature management legislation in the field of water transport?

— In our view, the existing provisions of law allow us to effectively exercise control over those who violate the law in harbors. There are enough means and mechanisms to minimize negative impact of users of natural resources on the environment. If we talk about the prevention and oil spills, the Russian Government in its decree dated November 14, 2014 (№ 1189) developed relevant rules aimed at minimizing the negative risks from accidental spills.

— What are the most important challenges from your point of view currently facing the agency?

— Concerning the maritime control in the summer season we highlight as a priority patrolling on vessels owned by FBD “Baltic Directorate on Technical Assistance to Supervision at Sea” in the Gulf of Finland to prevent possible violations of environmental regulations. When patrolling the water we can see the violations, which can not be seen from the shore.

Besides, our department continues to exercise control of environmental legislation compliance with regard to the possible impact on the Gulf of Finland of works carried out in the framework of major projects, including the construction of Western High-Speed Diameter, of the Port Bronka, of Novokrestovskaya subway station, etc.

The Department monitors compliance with current environmental legislation, as well as timely responds to potential environmental risks.



Bunkering of Sovcomflot's vessels is carried out through cooperation with reliable suppliers

SCF Group's specialists told PortNews. Port Service how the leading tanker shipping company is implementing its bunkering policy.

What principles the centralized system of bunkering of Sovcomflot's vessels is based on? How these functions are distributed within the SCG Group?

Fuel for all of spot vessels managed by SCF UK is ordered for vessels in accordance with their distribution across the company's offices. A vessel operator is responsible for determining the number and range of bunker fuel in accordance with the regulations of our group, international regulations such as SOLAS, MARPOL, and so on, and regional regulations, for example, US Coast Guard, EU Directives, etc. This is achieved through monitoring the daily bunker reports from ships, the sailing areas under review, the possible port of calls according to the time charter terms and, of course, determine the optimum quantity of the bunker fuel with the master.

Specific requirements for blending residues of different fuels because of its possible incompatibility and, as a consequence, a variety of technical problems that can affect the ship's safety. Once this information is received and analyzed, the operator submits a request for bunker supply to the bunker manager, who will hold a bidding process in accordance with the procurement policy of SCF Group. Moreover, the request is sent to at least three bunker suppliers or traders.

Bunkering of SCF Group's ships is based on cooperation with solid, licensed bunker suppliers at any global port where bunker fuel is available. Fuel is ordered both directly from physical suppliers, or from bunker traders. All suppliers or traders are selected from our database, it ensures their

compliance with the criteria of SCF.

Proposals of fuel prices, specifications and delivery terms are collected, analyzed and handed over to the operator who will finally choose the bunker supplier. The choice of a particular supplier is based on proposals from several companies operating at the port, provided we have a credit line with them, and their work has a good reputation. All bunker supplies are based on a system of credit and payment, within 30 days from the date of delivery of fuel to the ship.

After that bunker manager sends to the selected supplier a formal bunker nomination. When the supplier formally confirms the request, the operator must forward to the captain, the agent and the technical superintendent all information on a particular bunkering operation.

The above procedure is processed by software VESON-IMOS and guarantees the purchase of quality bunker at the lowest market price. In addition, the involvement of several employees in the process helps avoid corrupt practices.

How is the supplier selection system organized? What are the companies SCF Group deals with? What is the approach to selecting and evaluating the quality of marine fuel?

We deal only with physical suppliers or traders. Bunker is never purchased from brokers as such deals are prohibited by our policy. Preference is primarily given to physical suppliers, but due to various financial requirements and credit policy of the suppliers we also deal with traders. All these suppliers must meet our product quality criteria and financial terms. Our main financial requirement is a 30-day loan as this is the period of time enough to pay for bunker after its delivery.

Fuel quality requirements are very strict and include the international standard ISO 8217: 2005. In the near future we plan a transition to ISO 8217: 2010. Compliance is controlled by mandatory physical and chemical analysis of delivered fuel at the Veritas Petroleum Services laboratories for compliance with ISO 8217. In addition, the daily monitoring of the fuel is carried out by engineer officers. The final evaluation of supplied fuel is prepared based on the reports from VPS labs and from the ship, guidance to ships and bring a claim if there is a noncompliance with standards of fuel. If our requirements or bunker quality claims are not considered by supplier we strike this company name off the list in our database and Sovcomflot cease to cooperate with it. Through this approach, the number of such poor bunker supply is declining and has reached an absolute minimum in recent years.

Since its inception, the Group has accumulated strong database of bunker suppliers. There are more than 300 companies added to our computer database. And a new supplier is added to the database only after checking products for compliance with our standards. We handpick suppliers for a particular bunkering from those companies who work at the port and has a good record. Actually, preference is given

to big oil majors, such as Shell, Exxon, Total, Cepsa, Rosneft, Gazprom Neft, LUKOIL and others. In any case, the supplier must be licensed to work in the particular port and to be in the registry of International Bunker Industry Association (IBIA).

How has the approach to bunkering ships changed after the limits on maximum sulphur content in marine fuels came into force in the Baltic Sea area?

SCF Group operates in strict compliance with the MARPOL requirements to limit on sulfur emissions in designated areas, including in the Baltic Sea. The Group's vessels always have an ample supply of low-sulfur fuel, and if it is necessary are bunkered in advance prior to entering the area. In connection with the introduction of sulfur content of no more than 0.10%, we use low-sulfur fuels: MGO and ultra-low sulfur product (ULSFO). We have retrofitted propulsion systems on those vessels that required it, increased fuel tanks capacity.

It is worth noting that ULSFO has the best price as compared to MGO at discounts of up to \$50 per metric ton in the Russian ports and of up to \$20 in the ports of North Europe. We have utilized the product as fuel for six-month period now and we believe that running on ULSFO is the best chose in SECA. Moreover, we believe that ULSFO would be an analogue for producing new marine fuel IFO 0,5%, which might be the main type of bunker after the implementation of the new 0.50% global sulfur cap. The main problem is ULSFO limited supply and lack of a unified standard.

What are the innovations in bunkering SCF Group has introduced in recent years?

Specialists of Sovcomflot study and test the use of new LSFO and special fuels with a 0.10% sulfur content for operation in designated areas with limits on sulfur emissions from ships.

As to our current activities, we have audited bunkering procedures and made the necessary changes. First of all, the bunkering procedures have been unified across the Group's companies. We have introduced the rule of mandatory selection of bunker suppliers by a vessel operator that helps strengthen an anti-corruption component. Several IT innovations have been implemented, computer software Spec Tec AMOS was changed to VESON IMOS application. This enabled processing in a single software package the procurement and bunker reporting. Mandatory electronic workflow in VESON IMOS application ensures full compliance of bunker procurement to policies and practices of SCF Group.

The article was contributed by: Konstantin Talalaev, Bunker Manager, SCF Management Services (Novorossiysk); Vladimir Nechitailenko, Bunker Manager, SCF Management Services (Cyprus) Limited; with the participation of Maxim Sharov, Operations Superintendent, SCF Management Services (Cyprus) Limited.





EXERCISE AT RPK-NORD FACILITY

A comprehensive exercise "Response to simulated oil spill at offshore transshipment facility of RPK-Nord LLC" was held in the water area of Murmansk seaport in the middle

of February, 2016. The forces and facilities deployed for the exercise by the Northern Branch of Rosmorrechflot's Marine Rescue Service, FSI: rescue ships Kapitan Martyshekin, Markab and Vodolaz Pechkurov as well as oil-gathering ship SRP-21. RPK-Nord involved its tanker Umba. The purpose of the exercise was to practice organisation of warning and communications when responding to oil spills at port Murmansk involving RPK-Nord, Northern Branch of Rosmorrechflot's Marine Rescue Service, Murmansk MRCC (Marine Rescue Coordination Center) and other organizations. The exercise included practical training of the Umba crew and the emergency response team for oil spill localization and response activities under Oil Spill Response Plan of RPK-Nord LLC. The exercise was acknowledged to be a success with the practice targets achieved and the tasks completed.

Gazprom Neft has launched a new logistic scheme for transshipment of Russia's Arctic oil produced at the Novoportovskoye and Prirazlomnoye fields – first consignments of oil have been delivered to the Umba storage tanker anchored in the Kola Bay.

In mid-January 2016, storage tanker Umba of 300,259 DWT was anchored by RPK-Nord, LLC in the middle part of the Kola Bay, within the water area of port Murmansk. The vessel's on-board infrastructure makes possible the intake, storage and transshipment of oil, and its full and timely customs and border clearance, as well as bunkering operations for shuttle-tankers and transporters. The Umba Very Large Crude Carrier is operated by RPK-Nord LLC, under Russian colours, so titled after the river of the same name in the Kola peninsula, Murmansk Region.



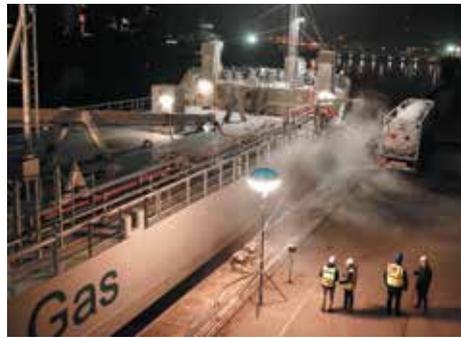
COLLABORATION WITH STASCO

Gazpromneft Marine Bunker, operator of the Gazprom Neft bunkering business, has completed its first fuel shipment under the contract with Shell International Trading and Shipping Company Limited (STASCO).

The Gazpromneft Zuid tanker delivered 320

tonnes of heavy fuel oil (mazut) and 650 tonnes of diesel fuel to the Minerva Atlantica tanker at the port of Primorsk.

The contract with STASCO (which provides for the delivery of bunkering fuel at Primorsk, with the possibility of this being extended to include further locations) was concluded during this year's International Petroleum Week — the annual oil and gas congress in London. Gazpromneft Marine Bunker CEO Andrei Vasiliev commented: "Collaborating with the trading and transportation division of one of the most important energy corporations in the world marks an important stage in our company's development. The priority for us is the high-quality fuel and bunkering services we are able to provide to our commercial partners and this, ultimately, was the deciding factor in our receiving approval to work with Shell."



GAZPROM GERMANIA: FIRST LNG BUNKERING

In early March 2016, Gazprom Germania GmbH, a subsidiary of Russia's Gazprom Export, carried out its first bunkering of a ship with liquefied natural gas (LNG) at the

port of Rostock, Germany. M.V. Greenland, a cement carrier owned by the Norwegian shipping company KGI Cement AS, was fueled with LNG for the first time in the southern Baltic Sea. The LNG was transported to Rostock by road tanker.

In 2014 Gazprom Group signed a Memorandum of Understanding with Rostock Port on cooperation in the LNG market. This cooperation focuses on the development, marketing, and use of LNG in road transport and marine shipping in the German state of Mecklenburg-Western Pomerania.



NEFTYANIK-1 TANKER UNDERWENT REPAIRS

Tanker Neftyanik-1 of LUKOIL-Bulgaria Bunker underwent class repairs and resumed its operations in late March. The repair works were performed at Rouse based shipyard. Tanker Navi which underwent scheduled dockside repairs to the class of Bulgarian Register of Shipping in November

2015 operates at Bourgas and Varna.

LUKOIL-Bulgaria Bunker provides bunkering services at Rousse, Vidin, Silistra and Lom (Danube river ports in Bulgaria), Bourgas, oil district Rosenets and Varna (Bulgaria).



FLEET RETURNS TO ROSNEFT

Rosneft consolidated 100% of Rosnefteflot having bought 49% of its assets from Sovcomflot for \$6.3 mln. According to the company's IFRS financial statement

for 2015, the transaction was made on June 5, 2015. That asset was initially considered as a basis for the company's Arctic projects but it fell under the sanctions. Now, small tankers and tugboats of Rosnefteflot will be used for domestic transportation and bunkering. Rosnefteflot's ships currently operate at the ports of Primorsk, Ust-Luga, Vysotsk, Murmansk, Tuapse, Nakhodka, Vostochny and Prigorodnoye. The company specializes in providing towing and bunkering services. Its feet numbers 20 own vessels. The company also operates several vessels under bareboat charter agreements. The newest ship is tugboat RN Amur commissioned in 2014. Recent years have seen Rosneft building up its bunkering business in Russia and in foreign countries through the activities of RN-Bunker and Rosneft Marine UK Ltd accordingly. In 2014, Rosneft's bunker sales grew to 3.9 mln t.

ROSNEFT'S NEW GRADES OF FUEL

In the framework of Rosneft's programme for the development of in-house production of marine fuel complying with international specifications and environmental standards, the company commenced producing RMG-380 and RMG-700 fuel at its Saratov Refinery. First batches of the new product were shipped for sale at the Black Sea ports. Key consumers of these grades of fuel are large capacity state-of-the-art vessels with low-speed and medium-speed power plants allowing for the use of heavy and high viscosity fuel. Bunkering services at the most sea and river ports of Russia are provided by RN-Bunker LLC (Rosneft subsidiary). Bunker fuel supplied by RN-Bunker is produced by Rosneft's 10 refineries across Russia. In mid-June 2016, Komsomolsk Refinery, commenced producing DMF-1 with sulphur content as low as 0.1%. RN-Bunker LLC (Rosneft subsidiary) has already shipped first batches of the new product to its customers. Rosneft also produces DMF-1 at its Ryazan Refinery.

YAMBURG AT UST-LUGA

Oil product terminal Ust-Luga Oil has received a new ship for oil spill response operations. The ship named Yamburg and built by Damen Shipyards Gorinchem is used for laying booms around tankers loaded at the berths of Ust-Luga Oil and Neva Pipeline Company terminals.

Deployment of a boom-laying boat Yamburg will let increase the efficiency of routine preventive measures in the water area of Ust-Luga Oil OJSC and reduce the rescue team's response time in case of emergency within the area of Ust-Luga Oil OJSC and Neva Pipeline Company LLC responsibility, says the company.

**NAYADA JOINS RUSSIAN ASSOCIATION OF MARINE AND RIVER BUNKER SUPPLIERS**

Nayada Co Ltd joined Russian Association of marine and river Bunker Suppliers.

Nayada Co Ltd was set up in 1998.

The company provides bunkering services at the ports of Primorsky

Territory: Nakhodka, Vostochny, Kozmino, Vladivostok, Slavyanka, Zarubino, Posiet, Korsakov, Vanino, Bolshoi Kamen, Preobrazheniye, Olga, Rudnaya Pristan. The Company also transports oil products in the Far East region and in the South-East Asia. The Company's fleet numbers seven tankers and two tugboats. ISO 9001:2008 certificate was obtained in 2013.

**BALTIC FUEL COMPANY TO EXPAND TURUKHTANNIYE ISLANDS**

Following the signing of an agreement on creation of an artificial plot of land, Baltic Fuel Company Group (BFC Group, Saint-Petersburg) obtained a permit from the Federal Marine and River Transport Agency for construction of Marine Oil Terminal "Turukhtanniye Islands" and implementation of works on creation of an artificial plot of land.

The project provides for construction of five berths, a tank farm, a discharge rack and other facilities.

The project on construction of technological infrastructure facilities at the Marine Oil Terminal "Turukhtanniye Islands" of BFC within the water area of Big Port St. Petersburg is included into the area planning scheme of the Russian Federation in the field of federal transport approved by RF Government's Decree dated March 19, 2013 (No384-r).

The Declaration of Intent to invest into the project was approved by the Federal Marine and River Transport Agency on July 30, 2014. The permit to create an artificial plot of land was issued on December 17, 2013. Rosmorrechflot's Decree dated September 22, 2014 approved the project's planning documentation.

The terminal currently consists of a 7.3-hectare plot of land and two berths for transshipment of oil products. The terminal's annual throughput is to be increased to 2.4 mln t by 2017 and to 4-5 mln t by 2020. Investments into the project are estimated at more than RUB 3 bln.

**BUNKERING UNDER CONTROL**

Mayak Specialized Design Bureau, LLC offering solutions for monitoring of bunkering process has developed a

specialized information and analytical system Portal (IAS Portal). IAS Portal lets control the bunkering of vessels, watch key parameters of the technological process, analyze them and transfer data to the accounting application "1 C". The parameters under control include the amount of fuel accepted by the bunkering tanker, time of fuelling, amount of bunkered fuel, time of bunkering, identification of the bunkered vessel (option), cargo pumps switch on / switch off time, bunkering location. IAS Portal has already been tried by the bunkering vessels of Yaroslavl and Tver ports, Tatflot shipping company etc. IAS Portal is intended for companies involved in bunkering of sea and river vessels with fuel and oil.



Russia's bunker market shrinks

The growth of bunker prices and Russia's fiscal policy has led to a slight decrease of bunker sales in Russian seaports. Preliminary forecasts say the market will shrink by 10–15% in 2016.

In the first half of 2016, seaports of Russia continued demonstrating positive dynamics of cargo transshipment volumes increase. In the six-month period, throughput of Russian seaports grew by 6%, year-on-year, to 345 mln t. The ports of the Baltic Basin accounted for 34% of total throughput, Azov-Black Sea Basin — 33%, Far East Basin — 26%, Arctic Basin — 7%, Caspian Basin — slightly below 1%.

In the reporting period, 45,500 vessels called at the seaports of Russia. Total volume of bunker sold at the seaports amounted to almost 5 mln t. Taking into account the sales of bunker fuel at inland water ways of the Russian Federation (210,000 t with LUKOIL-Bunker accounting for 40% of this amount), Russia's H1'2016 bunker market totaled 5,200,000 t of light and dark oil products.

It should be noted that bunker sales at seaports and inland water ways of Russia in 2015 totaled 14.5 mln t and even optimistic forecasts say that bunker sales in 2016 will be less than in 2015. Slowdown of bunker sales should be attributed to the growth of bunker prices.

According to the Analytical Department of IAA PortNews, Russia's top five bunker suppliers in H1'2016 are the same as in 2015 though there are some changes within the group. Gazpromneft Marine Bunker LLC is still the first with its 20-pct share of total bunker sales at Russian seaports. The other leader with the same share, 20%, is LUKOIL-Bunker LLC which was the third in 2015. This leap was made by the company due to its mass sales of ecological marine fuel. The leaders are followed by NNK-Bunker (a subsidiary of Alliance Oil Company) and





RN-Bunker (a subsidiary of Rosneft) with similar results—slightly over 10% and slightly below 10% accordingly. In 2015, these companies held the 4th and the 2nd positions of the rating. The fifth position is still held by Transbunker Group accounting for 6% of Russia's bunker market.

NORTH-WEST

In 2015, most bunker fuel was sold in the Far East region of Russia while the first half of 2016 saw the Baltic and the Arctic Basins as the leaders again. According to IAA PortNews calculations, bunker sales totaled 1.8 mln t there.

Throughput of seaports in the Arctic Basin grew by 25% to 21 mln t, in the Baltic Basin—by 2% to 117 mln t.

This market leaders are LUKOIL-Bunker (36%), Gazpromneft Marine Bunker—(25%), Baltic Fuel Company (10%) and RN-Bunker (7%). As compared with the year of 2015 the leadership balance is almost the same with only RN-Bunker having jumped from the 7th to the 4th position.

FAR EAST

Cargo handling in the Far East Basin in the first half of

2016 grew by 9.5% to 91 mln t while bunker sales totaled only 1.77 mln t. It should be reminded that bunker sales in 2015 totaled 6.5 mln t with low bunker prices and supplies of marine fuel to transit ships at offshore terminals of Russia's Far East ports which were available for more than a half of the last year.

Far East bunker market leaders are the same. NNK-Bunker has climbed from the last year's second position to the first place (35%). It is followed by Gazpromneft Marine Bunker which has climbed from last year's third position (18%). RN-Bunker which was the leader in 2015 is the third now with its 12% of the regional market. Transbunker Group has jumped from the sixth to the fourth position (9%).

BLACK SEA

Bunker sales in the Black Sea Basin are stable. In the first half of 2016 Russian companies sold 1.42 mln t of marine fuel with seaports' throughput growth of 5% to 113 mln t.

The largest bunker suppliers in this market are LUKOIL-Bunker (25%), Gazpromneft Marine Bunker—(21%), Transbunker (9%) and RN-Bunker (7%).



Bunker thaw

Having reached a bottom price last year Russia's bunker market has been showing a growth trend in 2016. The prices are influenced by the introduction of excise tax on middle distillates, which is now included into the fuel price.

VLADIVOSTOK

Average indicative price of IFO-380 HS at the port of Vladivostok was \$173 pmt. The minimum price of \$110 pmt started a gradual growth from January amid the strengthening rouble and the increasing prices at oil farms. By May it settled at a high level for several months (May-June).

High prices in the summer period were caused by a deficit in the region.

Due to a sharp devaluation of rouble against the key currencies and unpredictable fluctuations of the rouble rates, bunkering companies tended to purchase smaller batches of fuel. Refineries, on their turn, tended to overprice smaller batches of fuel.

The deficit was first felt in early May when small batches of fuel received after the May Day holidays were already distributed. Bunkering companies expected improvement of the situation after the holidays but it aggravated. Early July still saw a heavy deficit of IFO-180 HS. Bunker suppliers offer IFO-380 HS instead of IFO-180 HS.

Average price of IFO-380 HS was 38% less as compared with the same period in 2015. At the port of Singapore this type of fuel cost \$200 pmt, which is only 13.5% higher than in Vladivostok.

Average MGO price in H1'2016 was \$360 pmt.

Average MGO price started growing in February from \$300 pmt and from March it was stable at \$370 pmt over the reported period with maximum fluctuations of +/- \$20.

The difference of prices between the ports of Vladivostok and Singapore started to decrease: in late 2015, MGO prices in Vladivostok exceeded those in Singapore by \$60, which made the prices in Russia's Far East region uncompetitive. In March this difference fell to \$20. In April the prices became equal and from May MGO prices at the port of Singapore exceeded those in Vladivostok by \$40.

BIG PORT ST. PETERSBURG

Monitoring of bunker indications held by IAA PortNews in H1'2016 showed that average indicative price of IFO-380 HS at the port of Saint-Petersburg was \$124 pmt in January-June, down 45%, year-on-year. At the port of Rotterdam this type of fuel cost \$180 pmt, which is higher by 30%. Over a year the difference of prices at the rival ports increased by 3%.

Minimum price of IFO-380 HS was registered in January — \$50 pmt. In January-June, average indicative price showed moderate growth of about \$20 per month, in June the price reached this year's maximum — \$167 pmt.

Specific trend of the first half of 2016 was in the difference of final bunker prices between different companies which was as high as \$10 rising sometimes to \$40. This difference was determined by the deficit of fuel which some companies purchasing small batches of fuel amid unstable dollar rates were facing throughout the reported period.

Average MGO indications in January-June were \$336 pmt, 31% less, year-on-year. The difference between the maximum price (June) and the minimum price (January) is \$170. Minimum MGO price was \$257 pmt. The difference between MGO price at the ports of Saint-Petersburg and Rotterdam decreased from 60 to 20 dollars.

The domestic market saw a different situation. With the increase of excise tax on diesel fuel from April 1, 2016 the prices surged from RUB29,500 pmt to RUB32,500 pmt. In June the price ranged RUB33,000 [mtto RUB38,000 pmt depending on the product (excise/non-excise with different technical characteristics).

Average indicative price of ULSFO was \$296 pmt, down 30%, year-on-year. In the first half of 2016 the price jumped from \$230 pmt in January to \$380 pmt in June.

ULSFO came to the market in early 2015. In 2016, the sales of ultra-low-sulphur fuel oil reached almost 18% of total bunker sales at the port of Saint-Petersburg.

UST-LUGA

In H1'2016, average indicative price of IFO-380 HS was \$128 pmt, down 45%, year-on-year. Following the regional market trend in January-June 2016 average price gradually increased from \$68 pmt (in January) to \$170 pmt (in June).

Average MGO indications in H1'2016 were \$340 pmt. IAA PortNews registered the maximum/minimum price difference of \$173. Starting from January the prices were slightly increasing following the global market trends. Maximum price was registered in June—\$432 pmt. In the same period of 2015 average MGO indications were 32% higher.

Average indicative price of ULSFO was just \$7 higher than that of the neighboring port, the port of Saint-Petersburg. The fall of prices was the same—30%. Maximum/minimum price difference was \$141.

Indications at the port of Ust-Luga were generally higher as compared with those at the port of Saint-Petersburg. Some companies operating at both ports set their prices with additional \$10 for the port of Ust-Luga while others used to sell bunker at the prices equal to those at the port of Saint-Petersburg.

KALININGRAD

The dynamics of prices at the port of Kaliningrad and the ports of the Northern Basin depended on the prices at the nearest and busiest European port, the port of Rotterdam. In H1'2016, indications at the port of Kaliningrad were very unstable.

Apart from the geopolitical situation in the first half of 2016 the global oil trend was affected by another key factor—shale oil production in the USA and, consequently, possible oversupply in the market.

Average price of IFO-380 HS was \$166 pmt. Maximum level was registered in late June—\$222 pmt, minimum—\$105 pmt in mid-January. In the same period of 2015 average indicative price of this fuel was 44% higher.

Average MGO price was \$344 pmt. The difference between maximum/minimum price was \$185. Average indicative price of this fuel was 35% lower than in 2015.

Average ULSFO indications were \$302 pmt. In late June the price climbed to its maximum—\$382 pmt. In the reported period, the price was the same as in Saint-Petersburg.

MURMANSK

Average price of IFO-380 HS at the deepwater non-freezing port of Murmansk (Barents Sea) was \$160 pmt, down 37%, year-on-year. Maximum price was registered in June—\$220 pmt, minimum—\$110 pmt in January. There was a stable and gradual growth. In January-February, bunkering companies marked the fall in the number of applications amid the permanent fall of prices. Ship owners expected further decrease of prices for profitable transactions at minimum rates. Besides, the difference of bunker prices in first months of 2016 at the ports of Murmansk and Rotterdam was favorable for Rotterdam (down \$20 against Murmansk prices). In early March, the prices at the port of Rotterdam were higher by \$20 again. This difference remained till the end of the reported period.

Average indicative price of MGO was \$348 pmt. The difference between the maximum and the minimum prices registered in June and January accordingly was \$143. Against

the background of the jump-like pricing policy at the port of Rotterdam, the prices at the port of Murmansk were more moderate.

In the same period of 2015, average indicative price of this fuel was higher by 31%. ULSFO has not been supplied from January 2016 amid insufficient demand in the region.

ARKHANGELSK

At Russia's Northern port of Arkhangelsk (White Sea) average price of IFO-380 HS was \$168, down 44%, year-on-year. Max/min price difference was \$115.

Average MGO price was jumping throughout the reported period and made \$345 pmt. Max/min price difference was \$160, down 35%, year-on-year.

Summer season for cruise ships started in the Arkhangelsk region in June. Bunkering companies offer ULSFO for foreign liners. Average indicative price of ULSFO was \$330 pmt.

Indications in Russia's southern ports were quite moderate in H1'2016. Considerable growth started in May-June following the global oil trends.

NOVOROSSIYSK

Average indicative price of IFO-380 HS at the port of Novorossiysk was \$122 pmt. Having started with the minimum level of \$60 pmt in January the price reached its maximum in June—\$162 pmt. In February-May 2016 the price stayed at \$120 pmt.

Average indicative price of IFO-380 HS was 44% lower as compared with that of 2015.

Average MGO price was moderate at \$396 pmt. In January—mid-May, MGO price was stable at \$370 pmt (+/- \$10). Maximum level was reached in the middle of June amid the strengthening rouble—\$460 pmt. Average indicative price of IFO-380 HS was 30% lower as compared with the same period in 2015.

KAVKAZ

At port Kavkaz (Kerch Strait), average price of IFO-380 HS was \$128 pmt. Indications started growing from \$75 pmt in January, in February-April it was stable at \$125–130 pmt. The surge was registered in mid-May with the highest level reached by late June—\$171 pmt. Average indicative price of this fuel was 45% lower as compared with that of 2015.

Average MGO price was \$405 pmt. Maximum level was reached in mid-June—\$475 pmt. Average indicative price of MGO was 30% lower as compared with the same period of 2015.

ROSTOV-ON-DON

Average indicative price of IFO-180 HS at the port of Rostov-on-Don was \$143 pmt. Having started with the moderate growth from the minimum level of \$135 pmt, the price surged to its maximum in June—\$195 pmt due to a deficit in the region.

Average price of low-viscosity marine fuel was \$330 pmt, down 34% against the same period of 2015. The indications proved to be stable with fluctuations of +/- \$15 throughout the reported period.

The ports of Azov, Taganrog and the Azov Sea showed similar dynamics as that of the Rostov-on-Don.

To keep up with the current prices for marine fuel use the Bunker Price Bulletin of IAA PortNews.

The report on the prices at the ports mentioned in this review is updated twice a week.

The data is provided by bunkering companies. Subscription fee is RUB6,000 per month.

Please send your application to snitko@portnews.ru to subscribe.



Market chooses eco-friendly fuels

A team of experts of Gazpromneft Marine Bunker analyzed the bunker market affected by implementation of MARPOL restrictions on the sulfur content in marine fuel in the emissions control area (ECA) and presented their research results.

Anticipating market trends and the needs of shipowners, as well as future changes in environmental regulation, Gazpromneft Marine Bunker a few years ago increased added to its portfolio of products environmentally-friendly ultra-low sulfur fuel (ULSFO). In the current uncertain market environment and a lack of awareness of the partners at the end of 2014 the company initiated a 3-year research project on the analysis of the bunker market that could help in strategic decision making and contribute to the development of the segment of new eco-friendly fuels.

Analysis of the bunker market (a 3-year study), each element of which is intended to solve the complex problems:

- 2015—to define the overall mood of owners, to identify key scenarios considered by them to work in new environment, to see their first attitude to new environmental fuel and understand their future plans on ULSFO;
- 2016—to expand the target audience for understanding the specifics of market assessment by its members, to determine the relevance of the shipowners scenarios of operation, identify the advantages and disadvantages of new ecological fuels on the basis of experience, as well as to understand future opportunity of ULSFO;
- 2017—to assess the prospects for the development

of alternative scenarios: switching to LNG, promotion of scrubbers, and understand their impact on the segment of ULSFO, identify key vectors of further development of ecological fuels and track the emergence of new market trends.

The target audience for the research project were ship owners, suppliers of fuels, traders and the maritime industry media.

PRIORITIES OF SHIPOWNERS

The study established three priority levels in implementing scenarios of operation by shipowners in the market after MARPOL restrictions came into force.

Among high priorities were switching to MGO and work with mix-of-fuels. Light fuels have long been supplied in the market and they have proved to be the best choice due to the products availability in ports and compatibility with ships equipment. Moreover, these fuel grades supplied in this segment are unified (different suppliers adhere to unified composition) and are predictable in terms of pricing. Using MGO or ULSFO within ECA zones and outside its limits is quite a common scenario and cost-effective at that for tramp vessels. However, to implement this scenario entails some



refitting by the shipowner, namely the tanks for storage of MGO / ULSFO.

The transition to ULSFO and installing scrubbers were named among average priorities. As vessels operate in the Baltic Sea owners purchase environmental fuels, where unlike other emission control areas they have no problems with such products. This scenario is true only for certain areas, so this is not a prevailing trend in the entire market. As for using scrubbers, this seems to be a solution for the «elite» because installation requires significant investment, depends on the fleet condition (vessel's age and tonnage) and shipowner's capability to calculate the payback time for a scrubber installation in the current and anticipated macro economic environment.

Re-routing and fines for violation of the MARPOL regulations were attributed to low priorities scenario. The voyage re-routing is considered only when it comes to the possibility of sail round the ECA region, without changing the final destination. This takes into account economic efficiency and the time to make decisions. In other words, the scenario is not a trend. The financial and reputational risks in conjunction with temporary losses due to delays at ports make the scenario less probable that shipowners would prefer to pay penalties for noncompliance with sulfur requirement in the ECA.

ECO-FRIENDLY FUEL (ULSFO)

The completed study results have debunked six myths that existed in the market about new environmental fuels. Shipowners' worries on the use of new fuels proved to be groundless.

The first myth is bad compatibility of environmental fuels with ship's propulsion, shipboard equipment. It has turned out that there will be no problem with ULSFO provided the shipowner's engineers had studied the characteristics of the fuel, the supplier had provided competent advice about the use of fuel on board and the crew follow the instructions. The process of transition to ULSFO is pretty simple for ships with dark fuel powered engines.

The second myth is insufficient availability of ULSFO at seaports. It was true for the first months of 2015, however, the fuel suppliers quite quickly changed the situation for the better. To date, the ultra-low sulfur fuel is available in the Russian seaports and in ARA region. The product shortage is typical for some European ports (that are not hubs) and the U.S. ports, but not for the entire market.

The third myth is an unappealing discount applied to MGO. Despite the current price attractiveness of MGO, on the back of crude oil decline, the market participants believe ULSFO remains economically viable product, particularly when it comes to bunkering volume of 1000 to 1500 mt with an average discount to MGO at \$50 in the Russian ports and \$20 in Europe.

The fourth myth is that Russia lags behind Europe in terms of supply and adaptation to new fuels. Last year showed that neither Russia nor Europe were proactive concerning ULSFO supply and adaptation to the market needs. However Russian suppliers were more flexible in providing solutions.

The fifth myth is that growing interest to scrubbers may undermine the potential of ULSFO. As of today, market participants are quite skeptical about the advisability of installing scrubbers on ships, in spite of the real experience of some shipowners with this solution. The verdict of the market to scrubber remains the same: too expensive to maintain, cost effectiveness has not yet been proven and requires large investments.

The sixth myth is that ULSFO is not an optimal solution to MARPOL fuel compliance requirements. Some experts interviewed have pointed out that working with environmentally friendly fuels help create a positive image of the shipping sector, which was previously labeled as a main polluter.

In addition, the availability of ULSFO in the market allows owners of ships with dark fuel-powered engines to smoothly adapt to the new conditions. «Cleaning» characteristics of new fuels has a positive effect on the condition of the engine's cylinder-piston blocks.

Experts estimate that price attractiveness of new eco-



friendly fuels as compared to MGO is: discount of up to \$50 per metric ton in the Russian ports and up to \$20 in the ports of North Europe. This is a key factor for shipowners to buy new fuels. Moreover, the market participants expect a surge in petroleum products price, which will make the attractiveness of ULSFO.

The experience in working with new fuels, together with a decreasing number of bunker claims to suppliers is yet another evidence in favor of growth in ULSFO niche. There are some operators in the market that did not log any complaints on new fuels, and physical suppliers and traders that have developed their own 'recipe' of successful adaptation of vessels to run on ULSFO. In other words, market participants recommend shipowners that do not have experience with ULSFO try new products.

There is still no harmonized standard so ultra-low-sulfur

fuels, which in turn makes ship owners to question the quality of each batch of the purchased product. Nevertheless, since the beginning of 2015 there have been some changes: environmental fuel were divided into RMD and DMA types depending on the product characteristics that can facilitate the work with them. Also, market participants expect that independent experts (classification societies, labs, etc.) will provide their suggestions on «standardization» of fuels.

The team of researchers of Gazpromneft Marine Bunker who participated in the project has obtained extensive information about related topics—the development of the LNG segment, comparative analysis of ULSFO and MGO, particular adaptation of vessels to operate on new environmental fuels, etc. These facts could form the basis for new planned expert interviews of a wider range of participants.

THE FOLLOWING PARTNERS OF GAZPROMNEFT MARINE BUNKER WHO AS EXPERTS PARTICIPATED IN THE STUDY:

1. Wilson
2. LUKOIL-BUNKER LLC3. Petrol Bunkering & Trading Group
4. Naftakom LLC5. Tallink Grupp
6. Pola Maritime Ltd
7. SIBUR8. SCF Group
9. ST.PETER LINE Company
10. Argus Media Ltd.
11. German Tanker Shipping
12. IBT Bunkering & Trading
13. Spliethoff
14. PortNews Media Group LLC15. Thenamaris (Ships Management) Inc.
16. Southern Bunkering Company LLC17. Finnlines
18. TMS Tankers Ltd.
19. North-Western Shipping Company
20. Minerva Marine Inc.
21. Northern Shipping Company
22. Maersk

23. CMA CGM
24. World Fuel Services
25. Rosestpetronal LLC26. Scorpio Bulkera Inc.
27. Dan-Bunkering
28. North-West Bunkering Company
29. Dampskibsselskabet NORDEN A / S30. MSC: Global Container Shipping Company
31. Peninsula Petroleum
32. SBI (Sea Bunkering International) B.V.
33. Unigroup Marine Fuels
34. ALPHA TRADING S.p.A
Dampskibsselskabet NORDEN A/S30. MSC: Global Container Shipping Company
Peninsula Petroleum
SBI (Sea Bunkering International) B.V.
Unigroup marine fuels
ALPHA TRADING S.p.A



Bunker suppliers address main agenda

As before, in 2016 the 9th Russian Forum Current State and Prospects for Development of Russian Bunker Services Market was yet another major unifying event for the country's bunkering industry. The forum was conducted by SRO Russian Association of Marine and River Bunker Suppliers.

The activities aimed at improving the sectoral legislation, the outlook of oil products and alternative marine fuels market, the procedure of levying excise taxes on middle distillates were among main topics discussed at the forum.

In legislation the bunkering sector players are most concerned about issues related to the mandatory state environmental impact assessment on the Elimination of emergency oil spill response plans (OSR), customs regulation in bunkering, legislative consolidation of mandatory regime of self-regulation in bunkering business.

Vladimir Sergeev, the Chairman of Russian Association of Marine and River Bunker Suppliers' Council, a member

of the Marine Board, Russian Government who reported on the subject at the forum assured the organization is working on all of these issues. He said that despite the Russian State Duma voted down the bill that would eliminate the requirement to carry out mandatory state ecological expertise of oil spill response plans (OSR), the Association intends to seek the inclusion of this issue in the agenda of the State Council of Russia.

In addition, the Association intends to deal with violations of the antimonopoly legislation in the maintaining of OSR preparedness.

An important issue was the procedure of excising and return of taxes on middle distillates and the Federal Tax





Service (FTS) representatives and invited experts told the forum participants about it.

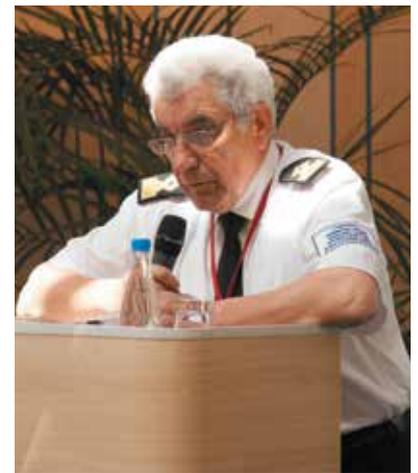
As a result of this discussion, the participants decided that some practical details of these procedures still need to be clarified and state authorities should spell out the procedures.

On January 1, 2016, amendments to the Tax Code of the Russian Federation entered into force by which new excise duty was imposed on middle distillates. This group of products integrates all types of light marine fuels used for bunkering. The law provides for a refund of the excise tax for entities that had issued appropriate certificates of FTS.

Another urgent issue addressed at the forum was the control over marine fuel sulfur limits. Alexander Volkov,

Harbourmaster, Big Port St. Petersburg said on the sidelines of the forum, that in the period from 1 January 2015 (when sulfur cap was reduced to 0.1%) and up to date there was only one case of the requirement violation recorded in the port. The vessel master and the shipowner responsible for the safety of navigation have been brought to justice and fined.

Speaking at the forum, Alexander Beday, a representative of Veritas Petroleum Services, cited statistics, according to which The European Maritime Safety Agency (EMSA) conducted 1,458 compliance inspections between January 1 and mid-April 2015. The audit revealed that 6% of inspected vessels failed to comply with the requirements to ships in sulfur emissions control areas (SECA).





Bunkering Company: success in the North

Is it possible for bunker suppliers in the present sluggish market to compete successfully with their rivals, bunkering divisions of the leading vertically integrated oil majors? Well, it has turned out to be possible, at least in case of Bunkering Company CJSC that has managed in the past few years to retain more than 50% of the bunkering market share at the Port of Arkhangelsk.

Bunker Company's successful business in the bunker market is built on long-term relationships with partners, diversification of activity, availability of strong infrastructure and flexibility in products procurement. Bunkering Company provides a scope of services necessary for shipowners. Some of the company's major business segments include: sales of oil products and bunkering commercial vessels; transportation; handling and storage of products; laboratory testing of petroleum products; collection and processing of bilge waters; collection and disposal of ship-generated wastes; supply of potable water; towing and icebreaking assistance to ships; testing of cargo hoses. However, according to its name the company specializes in the supply of Russian and foreign vessels with fuels at the Port of Arkhangelsk and across the country and in oil products wholesale.

BUNKERING SHIPS

Over the past years Bunkering Company CJSC, competing with the market heavyweights LLC Gazpromneft Marine Bunker, LLC Lukoil-Bunker, was holding more than 50% of the bunkering market share in the Port of Arkhangelsk. The main competitive advantages of Bunker Company are the following: the company is able to purchase oil products both from producers and traders and on St. Petersburg Commodity Exchange; the company has its own depot for handling and storage of petroleum products; the company performs products blending to obtain high-quality quality marine fuels; the company has its own test laboratory, which monitors oil products across the entire chain, from discharging of product to the bunkering operation, owns a fleet of different tonnage ships (ranging from 250 to 2,500GT) and tugs, enabling Bunker Company to provide



icebreaking support to its bunker ships in winter shipping season without outsourcing the service. All this allows the company to offer a package of year-round bunkering services at competitive prices.

Bunkering Company regularly participates in electronic trading and successfully executes public contracts for bunkering vessels of Northern Administration for Hydrometeorology and Environmental Monitoring. The company also implements a two-year contract year round with Murmansk Commercial Sea Port, bunkering ships of Siberian Coal Energy Company (SUEK) at the Port of Murmansk. For six years now Bunker Company has supplied bunker fuel for dredging fleet of Van Oord Offshore B.V. in the area of Baidaratskaya Bay. High quality of services provided was confirmed by the Letter of Thanks from Van Oord. Thanks to its long-term experience in offshore bunkering Bunker Company was awarded in 2014 the contract to supply oil products to vessels of Baggerwerken Decloedt en Zoon performing dredging in the basin of Port Sabeta under construction in the Ob Bay and on its access channels.

HANDLING AND STORAGE OF PRODUCTS

To ensure its operations, the company uses a complex for oil discharge (based in Arkhangelsk, Dezhnevstev Street, 34/1), where fuel is unloaded from rail tanks and tank trucks and storage of the following fuels: heavy fuel oil grades M-40 / IFO-40,120,180 / M-100 / IFO-240,380 /; diesel fuel grades 02-62, DZ, low-viscosity marine fuel; marine oils. The complex has an onshore boiler station and dedicated pier for loading oil products. It is possible to discharge simultaneously 19 rail tank cars at the facility. Storage capacity: 7,000 tonnes of heavy fuel oil, diesel fuel—6500 tonnes. Petroleum products are stored on berth-connected tankers «Iles», «Kasimov» and a barge «Pluton».

Recently, the oil barge «Tura» was acquired, which will increase the volume of simultaneous storage of diesel fuel by 3000 tonnes. The biggest customers buying oil products are: LLC RN-Bunker, Arkhangelsk Regional Energy Company, LLC LUKOIL-AERO, LUKOIL Severo-ZapadNefteprodukt, PJSC Murmansk Commercial Sea Port, LLC Agrotech-TM. Total fuel volumes supplied: in 2014—115,028 tonnes of HFO, 75,376 tonnes of diesel fuel; 2015—121,027 tonnes of HFO, 95,715 tonnes of diesel fuel. Projected annual capacity

for products transshipment is: HFO—250,000 tonnes and diesel fuel—350,000 tonnes per year. The company provides blending of fuels to the following technical specifications TU0252-001-41413429-2006 and in accordance with the individual requirements of customers.

OIL PRODUCTS SHIPPING AND WHOLESALE

In navigational season Bunkering Company is involved in the seasonal deliveries of petroleum products to the Far North based ports and harbors of the White, Barents and Kara Seas. Quite often oil products are transferred onto improvised onshore facilities through hose pipe. Petroleum products are delivered by tankers: «Tovra», «Dvina», «Mys Almasniy», by OBO carrier «Graf», which can also carry deck bulk cargo. In connection with the seasonal spike in sea traffic, the company time charters additional tankers. In December 2014 Bunker Company chartered from LUKOIL-Trans 7 tugs, 12 oil barges, 2 floating cranes, storage and maintenance facilities. On this basis, the company has arranged Transport and Manufacturing Centre Pechora (TMC, based in Komi Republic, Pechora district, urban-type settlement Puteyets). TMC Pechora in the framework of the seasonal stockpiles deliveries ensures bulk oil transport and in oil containers to the Pechora basin.

Bunker Company has signed three-year contracts for the transportation of oil products with LUKOIL-Trans for the needs of the Russian Ministry of Defense. The company's fleet also ensures the delivery of petroleum products to offshore O&G development fields of the Arctic Ocean shelf. Each year, the company actively participates in organization of seasonal deliveries of petroleum products to the ports and harbors of White, Barents and Kara Seas, providing services for fuel supply and transport, including for the construction of new ports and terminals, such as Varandey and Sabetta.

Despite the current challenging market environment, Bunker Company continues to develop and expand its business. Regional macroeconomic situation also contributes to its success: the construction of promising in terms of future traffic volumes Port Sabetta and Novy Port; the steady expansion of the Russian military presence in the Arctic region (rebuilding of the airport on Novaya Zemlya, increasing the number of armed forces personnel and equipment); the development of offshore oil fields.



Gazpromneft Marine Bunker gains ground in the Russian market

In 2015 Russian bunker market dropped by 12.6%. However, the fuel market specialist Gazpromneft Marine Bunker was able to retain its leading position, having increased in the shrinking market its share by 2.4% to 21%. In the reporting period the company sold 3.92 million tonnes of fuel.

It has repeatedly been pointed out that the drop in oil prices triggered a chain of negative events in the various sectors of the economy. In the maritime industry it was a reduction of competitiveness of Russian ports, a reduction in the number of vessel calls and cargo throughput. Naturally, the demand for bunker fuel also decreased. At the end of 2015, the domestic market declined by more than 2 million tonnes (12.6%).

A Gazpromneft's dedicated subsidiary Gazpromneft Marine Bunker is a supplier of light, dark and specialized conventional grades of marine fuel for sea-going and river vessels. Since its creation in 2007 the company has gained leading position in the Russian bunker market. Gazpromneft Marine Bunker operates in the North, Baltic and Far East, the Black Sea and on Russia's inland waterways.

In the past few years, the company's market share was steady at 18.6%. At the same time in absolute numbers the

volumes were growing: by the 2013 year end total bunker sales rose to 3.2 million tonnes, 2 million of the volume was retail sales, and in 2014–4.2 million and 3 million tonnes, respectively. So, during this period the Russian market was steadily expanding.

Another thing is the operation in shrinking market of 2015. «In this environment, both last year's milestones and planned targets could be achieved thanks to the efficiency of logistics and sales. We have done a good job» said Andrey Vasilyev, CEO, Gazpromneft Marine Bunker. Overall, the company supplied 3.92 million tonnes of fuel, of which 3.1 million tonnes sold retail. Maintaining the same sales volume in this environment will allow Gazpromneft Marine Bunker increase its market share to 21%. In general, the direct comparison with previous years shows that although the company failed to repeat the performance in the super successful 2014 year, the result of 2015 with 700,000



tonnes is better on the 2013 year. In fact, the company has successfully confirmed its status as a leading bunker supplier in the Russian market.

The crisis in the market did discourage Gazpromneft Marine Bunker to develop its own fleet and infrastructure, to improve logistics, and services provided to its clients.

One of the key ports where the company is currently operating is Murmansk. This port is a vital hub for the development of the Northern Sea Route, as well as to support the Prirazlomnoye and Novoportovskoye oil and gas fields. As a reminder, Russia's first effective development project on the Arctic shelf Prirazlomnoye includes not only the platform, but also the support fleet. Bunkering of these vessels is carried out at the base in Murmansk.

In 2015, an offshore fuel offloading unit (FSO) with capacity of 15 million tonnes a year was deployed in the Kola Bay and commenced operation, which allows the company to reconsider the plans related to the reconstruction of the terminal in Murmansk.

«This is one of those projects which deadline can be extended and we informed about it our partners. In line with our order and design the offshore transshipment complex will have a bunkering system, its tanks converted for storage of bunker fuel with a total volume of more than 9,000 cbm. Joint operations of the FSO and our bunker vessel will allow us to significantly optimize bunkering of ships in Murmansk,» said Andrey Vasilyev.

Last year the company also expanded its operations in the Black Sea bunkering market. In March 2015 new bunker vessel the 5,372dwt Gazpromneft Omsk was added to a fleet of two existing vessels in the Black Sea. As part of refitting the Novorossiysk based terminal complex the company completed work on doubling the tank farm capacity for heavy oil products. The company will increase the capacity of a station for loading tank trucks and of the rail overpass, increase energy efficiency, environmental and industrial safety. In 2014 transshipment through the terminal in Novorossiysk totaled 508 tonnes of marine fuel, and in 2015 this figure was exceeded by the end of November. In general, the company has increased bunker fuel sales in the ports of Novorossiysk, Tuapse, Sochi, Taman, Temryuk and Kavkaz by 22% to 795,000 tonnes (including 682,000 tonnes STS transshipment). The share of the company in the region has

hit 20.3%.

However, due to a decrease in the RUB exchange rate it became more complicated to acquire abroad spare parts and consumables. In this situation the technical policy of Gazpromneft Shipping appeared to be quite effective: not to buy a fleet over 10 years old and not operate vessels older than 25 years. «Our bunker vessels are in good condition and do not require significant investments in capital expenditures. We do not encounter with with a serious equipment replacement and parts, mostly carrying out routine maintenance. Part of the necessary equipment has analogues domestically produced and are easy to get in Russia. The spare parts that we can not purchase here, are widely available elsewhere, and there are no interruptions in supply,» Andrey Vasilyev said.

Market requirements are constantly changing. So, in 2015 there are new, more stringent rules effective in the Northwest region concerning the quality of fuel (with lower sulfur content). Gazpromneft Marine Bunker has commenced selling ultra-low-sulfur fuel and by the year-end result grabbed nearly 20% of the market share of this product.

According to Gazpromneft Marine Bunker estimates the currently new market of ULS fuels in the Baltic region will be forming within at least the next five years. In 2015, the market lacked stability. Now there are two ULS products launched in the market of Northwest Russia: the fuels produced by LUKOIL and NOVATEK.

«The volume of the rest, mixed grades produced from low-sulfur fuel, blending oil with diesel, does not exceed 10%. We are working with a Gazpromneft partner, NOVATEK, supplying in the market its own ULS fuel,» says Andrey Vasilyev. The enterprise is ready to increase in this segment of the market. In addition, it developed its own formula of ultra-low-sulfur fuel Gazpromneft, which will be produced by Omsk Refinery.

The introduction of new environmental standards entailed competition between conventional fuels (HFO and diesel) and alternatives, including liquefied natural gas (LNG). LNG-powered vessels, begin to sail both in Europe, the USA and in Asia. But the development of this trend has slowed down. «Lower prices for crude oil and oil products actuated suspensive status of LNG projects,» says Andrey Vasilyev. «Reduction of the price spread between the heavy fuel oil,



diesel fuel and LNG has forced many shipowners to put off the LNG-fueled ships projects until the next 5–7 years. Now investment projects are waiting for acceptable environment. At the same time the infrastructure for small-scale LNG bunkering industry is developing.»

There are six LNG bunker vessels at the design stage across the world. The ships will be operated in the Baltic and North Seas and along the coast of the United States. We are actively developing shore-based infrastructure, FLNG units deployed in Zeebrugge, Rotterdam and Hamburg. Gazprombank is involved in the project a plant in Vysotsk and later Baltic LNG plant is expected to be built. Gazpromneft Marine Bunker also plans to build an LNG bunker ship. «We see that this market segment will grow, and we do not forget that NOx emissions limits will come into force in the medium term. Therefore, we can expect that regular bunkering of LNG / DF powered ships will begin in 2019–2020.

Several years are required for the final formation of the market, and around 2025 we will be able to regard it as an established segment of the bunker market of Russia's North-West region. Provisional estimate of the market capacity in the Russian ports of the North-West is about 400,000 tonnes per year. By the way, ULS fuel market in 2015 started with the same numbers,» Andrey Vasilyev said.

An important sector of the company's business was the development of fueling river vessels. At the moment, the main problem in river fleet bunkering is that all participants of the market use infrastructure which was created in the Soviet era. Today, it is not in the best condition, so the bunkering the sector requires significant investment.

Gazpromneft plans to implement a project of building a network of fueling stations based on the rivers. «This project is among the strategic ones,» says Andrey Vasilyev. «Let's adhere to the principle of reasonableness and adequacy. In order to cover the distance from St. Petersburg to Rostov-on-Don, depending on the cargo volume carried and the river depth, a ship would require two, maximum three refueling. In fact, almost no vessels makes a single voyage along the entire route from start to finish. In most cases, the ship will move export goods from the middle part of the country to the south, or vice versa. Hence, river refueling stations should be located either upriver or downriver.»

Over the past two years a Balkan subsidiary of Gazpromneft Marine Bunker has gained ground at the

Romanian port of Constanta. «They had built a team of professionals over there who have solved the problem at this phase of development, they have occupied a niche in the local bunker market and have grabbed a significant market share. The enterprise is supplied with oil products from our own Novorossiysk oil depot and from the Serbian company NIS. The company succeeded in developing interaction with local government agencies, logistics and commercial activity, and I think our Balkan «daughter» is ready, if not to a breakthrough, then to a substantial strengthening of its positions in Constanta.

Of course, we pin our hopes on expansion of our footprint in the neighboring markets. We are working on the development of this direction. The best way to do it to supply fuel on the Danube River in conjunction with the bunkering division of NIS,» says Andrey Vasilyev.

In August 2013 Gazpromneft Marine Bunker acquired an Estonian asset AS Baltic Marine Bunker. The company operates its own bunker vessel, utilizes for products transportation chartered tanks and purchases fuel both from the parent company and on the local market. It is a full-fledged trade on the territory of the European Union.

In 2016, Gazprom Neft Marine Bunker LLC is planning to move the market of ULSF fuel, enhance reliability of vessels involved in the transport of oil from Arctic deposits Gazpromneft and continue to work on the project of an LNG bunker vessel.

Adapted from the articles of Gazprom Magazine





And the Ust-Luga Cup goes to...

The winner in the first qualification group was the team of EESTI RAUDTEE (Estonian Railways) that was awarded the main trophy—the Ust-Luga Cup. The first place in the second qualification group was taken by the team of BOSKALIS.

The fifth annual regatta has brought together 12 teams. Their crews included specialists and personnel of more than 14 Russian and international maritime industry companies. The competition was attended by over 100 people, only 25% of them were experienced yachtsmen.

The Regatta Media Partner was IAA PortNews Media Group. This year its correspondent participated in all legs

of the regatta, was fighting against the elements, covering the racing results on the ground.

This year the regatta included 5 racing legs on the route Tallinn—Helsinki, Helsinki—Kotka, Kotka—Kronstadt, and a short race in Tallinn Bay and the Port of Helsinki.

For the first time the crews of Damen Shipyards Group and Boskalis Westminster B.V. participated in the Ust-Luga Cup 2016 races.





Dominique Ampe, Director of Boskalis Offshore Energy Department in Russia: "The result is not crucial for us. Our team is here for the first time, and we are happy to take part in this regatta.

Boskalis is the dredging company and our motto is security, security in everything. Before the competition, we had a long conversation, the safety instructions in the event, in which we do not take part so often. The most important thing for us is the safety of our team and others. Regatta is a great experience for foreign and Russian companies in the team, it's a good time, it's the ability to get to know each other better, this is the time for best results.»



«I have the impression that the regatta is a corporate race. Competition is not the most important but participation is. This regatta is very complicated, it is different from the usual level of corporate competition. Despite the difficulties, our team tries,» Jaap Gelling, Damen's yacht skipper was quoted as saying.



FINAL RANKINGS IN THE UST-LUGA CUP 2016 ARE AS FOLLOWS:

1ST QUALIFICATION GROUP:
EESTI RAUDTEE (Olympic)
Damen (Nicole)
Anchor Logistics / Ultramar (Premium)
Russian Railways (Loko)
Ust-Luga Company (Korushka)
LIEBHERR (Victory)
Rosterminalugol (Pegasus)

2ND QUALIFICATION GROUP:
Boskalis (Victoria)
PUL trans (Solitaire)
Murmansk Sea Commercial Port (Grace)
The Ministry of Transport of the Russian Federation / Russian Maritime Register of Shipping (Gloria)
Morstroytechnology Ltd. (Jessika)

Photos courtesy of Stanislav Akhunov, Vlad Stepanenko, Marina Borisenko



Jan De Nul
GROUP



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These are the corner stones of Jan De Nul Group's success. Thanks to its skilled employees and the world's most modern fleet, Jan De Nul Group is a leading expert in dredging and marine construction activities, as well as in specialized services for the offshore industry of oil, gas and renewable energy. These core marine activities are further enhanced by Jan De Nul Group's in-house civil and environmental capabilities offering clients a complete package solution.

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1. Mobilisation of the dredging fleet for the Sabetta project in Yamal.
2. Dredging works in the port of Sabetta.
3. Dredging works for the cruise terminal in Sochi.
4. Dredging works in the port of Ust-Luga.



Mordraga LLC, Russian company founded in 2005 as part of Belgian DEME Group, provides a complete cycle of solutions in dredging, land reclamation and hydraulic engineering.

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Marine & Waterway Solutions

Mordraga, LLC

DEME Group of companies

Saint Petersburg, 191186 | Italian st., 17, Litter A | Russian Federation

T. +7 812 703 51 00 | F. +7 812 703 51 01

info@mordraga.ru | www.mordraga.ru

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