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ISSUE'S FOCUS

IN THE RHYTHM OF A LARGE CONSTRUCTION

ЛУЧШЕЕ КОРПОРАТИВНОЕ МЕДИА ГОДА
ЛАУРЕАТ ВСЕРОССИЙСКОГО КОНКУРСА
2020
АКМР

DEAR COLLEAGUES AND FRIENDS!

I congratulate you on the 25th anniversary of our company! In 1996, the joint stock companies CPC-R and CPC-K were formed, a lot of creative work began on the implementation of a large-scale international project. A quarter of a century has passed, and the Caspian Pipeline Consortium has become not only the main oil exporter of Kazakhstan, but also a backbone enterprise for four Russian regions. First of all, this is your merit – a close-knit and friendly multinational team of professionals, specialists with an excellent school and rich practical experience.

We do not stop at what has been achieved and do not slow down the growth rate. The Debottlenecking Program, which entered the construction and installation stage this year, was not affected by the pandemic or other challenges. The Consortium and its entire team co-ordinate and promptly respond to emerging difficulties, carry out their work responsibly, energetically and with high dedication, observing the entire range of requirements established by legislation and internal corporate norms. This is understood and highly appreciated both among our shareholders and at the state level. The International Economic Forum and the Russian Labor Safety Week this year gave us the opportunity to hear both worthy assessments of our activities from the executive branch and applause.

We have something to be proud of: the number of shipped tankers has passed the seven-thousand mark, the total tonnage of transshipped oil is approaching 750 million. In 2021, CPC reached the indicator of 35 million hours without industrial injuries and 97 million kilometers of corporate vehicles without accident. At the Marine Terminal and at every PS, in every office and at every workplace, people are working conscientiously, putting their efforts into these impressive fruits of labor every day.

Thank you, and Happy Anniversary!

N.N. GORBAN,
GENERAL DIRECTOR,
CASPIAN PIPELINE CONSORTIUM

AUTHOR PAVEL KRETOV

CENTIMETER ACCURACY

ON A STEEP SLOPE OF THE ONSIDE FACILITIES OF THE MARINE TERMINAL WORKIS IN FULL SWING: ON A NARROW HEEL, A DOZEN EXCAVATORS OF DIFFERENT SIZES ARE PREPARING A PLATFORM FOR THE INSTALLATION OF THE THIRD ACCOUNTING UNIT AT ONCE

All the maneuvers of heavy equipment are clearly visible from the window of the head of the construction headquarters of the DBNP Yuri Belov.

"The implementation of the Debottlenecking Program is progressing quickly, we are on schedule, but we would like to go even faster", says the chief "DBNPer" at the Marine Terminal. There were certain difficulties with mobilization, sanitary antiviral measures demanded close attention. The geology of the slope also turned out to be more complicated than we expected: a creek and a stream pass right through the center of the site, which added water to us.

In the summer, all the attention of the program participants was focused on preparing for the October planned shutdown of the oil pipeline. This time will be used for complex technological operations: contractors will rebuild the inlet manifold at the Onshore Facilities, to which four new tees will be connected. With their help, oil will be supplied to metering units through a process pipeline with a diameter of 1400 mm, and after them, through three pipes with a diameter of 1000 mm, it will go for shipment. Later, a complete modernization of the reduction station will be carried out, which is responsible for maintaining the necessary pressure at metering stations and tanker loading lines. The scheme and logic of its operation will change, almost all equipment will be replaced.

"In fact, the reduction station is such a "bottleneck" of our main pipeline, where everything converges", says Yuri Belov. "We have no room for error and have already begun serious preparations so that the operations for connecting technological pipelines would go smoothly".

By mid-summer, the contractors removed more than 60 thousand cubic meters of soil from the site intended for the installation of the third metering unit. Now, moving to the level of design marks, builders are using powerful hydraulic breakers.

"The loose soil is over, already 80 percent of it is rocky. We reached the required level on the southern side of the site, but in its north the volume of the rock is much larger", comments the chief of staff.

Interestingly, the rock against which the builders are fighting is both an obstacle and a natural ally. For example, it protects the peace of local residents and holidaymakers from the noise of hydraulic hammers. The organizers of the DBNP also thought about how to reduce the inconvenience of the population from dump trucks taking out the soil. Initially, it was assumed that 14 thousand m3 of rocky soil would be transported to the mountains on the territory of the Tank Farm, and then returned for backfilling to the Onshore Facilities. Now it has been decided: these volumes of soil will be placed for temporary storage in the neighborhood, just a kilometer from the town of builders.

Contractors will reach the peak of work on the DBNP in the fall of 2021. At this moment, about 300 people and about 70 pieces of equipment will be involved in the construction site.

"We always work closely with representatives of the operation service, because we work on existing communications, between existing communications and additionally bring our own. 24 piles were installed for the new technological pipelines. Each time it was truly a jewelry operation: at first, the pits were drilled under the control of the operating personnel. Concrete slabs were laid on the ground to ensure the rig's operation was accurate. They literally gained centimeters so that the drilling rig turned around and aimed exactly where it was necessary. And, as a result, they "built in" with an accuracy of a centimeter, all within the framework of the project and without unnecessary rearrangements", sums up Yuri Belov.

CONTRACTORS WILL REACH THE PEAK OF WORK ON THE DBNP IN THE FALL OF 2021E

YURI BELOV

AUTHOR:
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IMPORTANT INDUSTRIAL SITE

NEXT TO THE CONSTRUCTION SITE AT THE ASTRAKHANSKAYA PS THE FLAGS OF CPC-R JSC AND VELESSTROY LLC ARE FLYING. OIL PRODUCERS OF THE INTERNATIONAL CONSORTIUM AND THE CONSTRUCTION GENERAL CONTRACTOR ARE IMPLEMENTING THE DEBOTTLENECKING PROGRAM (DBNP), WHICH WILL ALLOW TO INCREASE THE CAPACITY OF THE TENGIZ – NOVOROSSIYSK PIPELINE SYSTEM TO ABOUT 80 MILLION TONS OF OIL PER YEAR BY 2023

Today, up to 40 work permits are issued daily to perform work within the framework of the DBNP at the Astrakhanskaya PS. To ensure that the modernization does not disrupt the rhythm of the transportation of hydrocarbons through the pipeline system, an impressive set of measures was introduced: traffic patterns were developed, fences for construction sites were created, evacuation routes were thought out. Construction operations are carried out not only under the supervision of the DBNP specialists, but also the maintenance personnel, with the constant presence of HSE specialists.

"We control the progress of construction operations, the use of personal protective equipment, and the regularity of gas analysis", comments Sergey Nosov, Manager of the Astrakhanskaya PS. If it is necessary to work on existing equipment, its withdrawal is carried out in accordance with the regulatory requirements of the company. All the summary information goes to the shift supervisor, he always knows which contractor or subcontractor is carrying out what work within the framework of the DBNP.

Excavation work near existing communications must necessarily begin with preliminary drilling of the soil. In all places where it is necessary, the crossing points of equipment through communication cables, water pipes, etc. are reinforced with concrete slabs. Serious importance is attached to the reliability of operation of cable racks: the edges of the construction pits next to them are strengthened with special shields and spacers from shedding. High-altitude control of overpass supports has been introduced. Moreover, experts also strictly monitor the absence of slopes or subsidence. In the hot climate of the Astrakhan region, there are not too many fire safety measures, therefore all temporary wooden structures are treated with fire-retardant compounds.

KONSTANTIN BOYTSOV

TO REDUCE THE NUMBER OF FIRING OPERATIONS ON THE TERRITORY OF THE OPERATING PS, AN ENLARGED ASSEMBLY WAS DEPLOYED AT THE INDUSTRIAL BASE OF THE CONSTRUCTION CAMP

We would like to remind that the work within the framework of the DBNP at the Astrakhanskaya PS began in mid-2020 with the transfer of the cable rack located in the construction zone of the main pumping station. By May 2021, when the "CPC Panorama" correspondents visited the facility, the builders passed the mark of 20% of the total amount of work. They carried out the installation of the foundations of pumping units, the building of the main pumping station and the site of variable frequency drives. To increase the area of the PS, the fence of the northern part of the station was removed.

Even earlier, in April 2021, during the planned shutdown of the oil pipeline on the territory of the PS, sections with ball valves at the inlet and outlet of the main pumping station were prepared. The general management of this important operation was carried

out by the Deputy General Manager for CPC Operations Vladimir Grinko, key specialists from the Central Region and the plant personnel took part in the work. Now, after the installation of the manifolds of the main pumping station, the "new heart" of the PS can be connected to the pipeline without stopping the pipeline or reducing the mode along it.

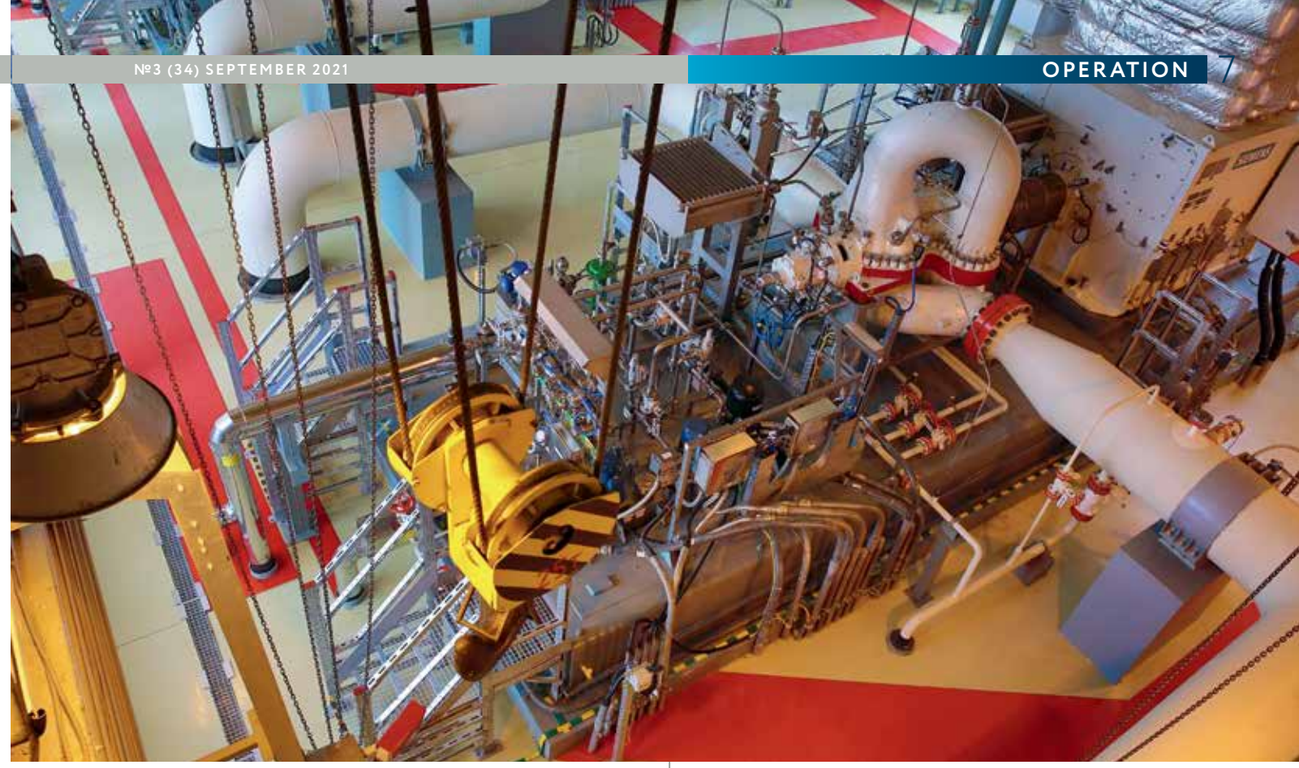
In May, Velesstroy LLC contractors completed the construction of a fully autonomous two-story block construction camp. They have been carrying out these works since February, moving about 6 thousand m^3 of soil and laying engineering networks, including electricity, sewerage and water supply. In the town of builders, office premises of the administrative zone, hostels for engineering and technical specialists and workers, a canteen for 100 people, a shop, and a first-aid post were located. There are also warehouses with special storage conditions for expensive high-tech equipment.

"In order to carry out as little fire and sparking work as possible on the territory of the operating PS, an enlarged assembly of technological pipelines has been deployed at the production base of the construction camp, fittings for foundations and even small foundations are being prepared. In the same place, the field laboratory performs X-ray diagnostics of welded joints of pipelines, hydrotesting is carried out", lists Konstantin Boytsov, head of the project coordination group of the CPC Central Region Construction Headquarters.

The location of the residential area directly at the construction site allows you to effectively use the entire daylight hours. For example, builders begin to work with sunrise – in order to interrupt for rest during the period of the highest heat without compromising the schedule.

"All our employees are instructed: health is above all", says Dmitry Gorbachev, Velesstroy manager of the "Astrakhanskaya PS" project. "You need to monitor not only your well-being, but also not to forget about your comrades. In case of the slightest discomfort, you should notify the superintendent and contact the paramedic, wait in a cool room".

It should be added that the warehouses and the town at the Astrakhanskaya PS are an important transshipment base for the implementation of the DBNP at all facilities in the Central Region. It is here that the main materials arrive, an enlarged assembly is carried out and then these structures are delivered for further installation to the Komsomolskaya PS, PS-2, PS-3, A-PS-4A and A-PS-5A. And at the Astrakhanskaya PS, the Debottlenecking Program is planned to be completed in early 2023.



AUTHOR
PAVEL KRETOV

IN THE RHYTHM OF A LARGE CONSTRUCTION

CORRESPONDENTS OF THE CORPORATE MAGAZINE HAVE VISITED THE PS-2 IN THE REPUBLIC OF KALMYKIA, WHERE THE DEBOTTLENECKING PROGRAM IS CONTINUING AT A HIGH PACE

You can get from Astrakhan to PS-2 in four hours by car along the road among the sultry steppe. In the gigantic open spaces of Kalmykia, the wind easily "kicks" not only the tumbleweed, but also makes even high sand dunes migrate. One of these partially blocked the access road to the station. After driving around the obstacle, the driver puts the car on the handbrake and calls the dispatcher.

"This is a common phenomenon here. But now a grader will come and clear everything", our companion explains later.

At the station, natural conditions have to be taken into account when implementing the Debottlenecking Program.

"Strong winds, of course, make adjustments. For example, yesterday we were forced to suspend the work on the installation of piles, performed

with the use of lifting equipment", says Vyacheslav Reshetnyak, Construction Service Head of the DBNP Headquarters.

Vyacheslav knows firsthand what a difficult climate is and how it affects the implementation of construction projects. Before joining CPC, he worked for 10 years on the Eastern Siberia - Pacific Ocean pipeline system. He built the linear part from Skovorodino to Kozmino, laid a branch to the Komsomolsk refinery, built new ones, modernized previously built stations.

Recall that within the framework of the DBNP for all four main pumps, the construction general contractor Velesstroy LLC will install variable frequency control devices for the rotation speed of a high-voltage electric motor (VFD). This modernization of the main pumping station and the arrangement of the VFD site is associated with the operation of relocation of the emergency diesel power plant located at this site. The fifth tank of the pressure wave smoothing system will also be built. And at the last stage of the DBNP, when the new equipment undergoes comprehensive testing, a decision will be made to dismantle the pressure regulator platform.

"For the construction of four modules of the VFD site alone, the contractors will install about 170 piles. Eight more will be required for overpasses: two additional kilometers of cable lines will be laid at the station. And finally, four piles are needed for the foundation slab at the base of the pressure wave smoothing system", Vyacheslav Reshetnyak lists.

VYACHESLAV RESHETNYAK

In general, according to the project, the implementation of the DBNP at PS-2 will require the excavation of about 500 m^3 of soil and the pouring of almost 800 cubic meters of concrete. At the beginning of construction, the latter was delivered from Elista, then the concrete-mortar plant was placed in the village of Komsomolsky, from where it became convenient to supply contractors both at the Komsomolskaya PS and PS-2.

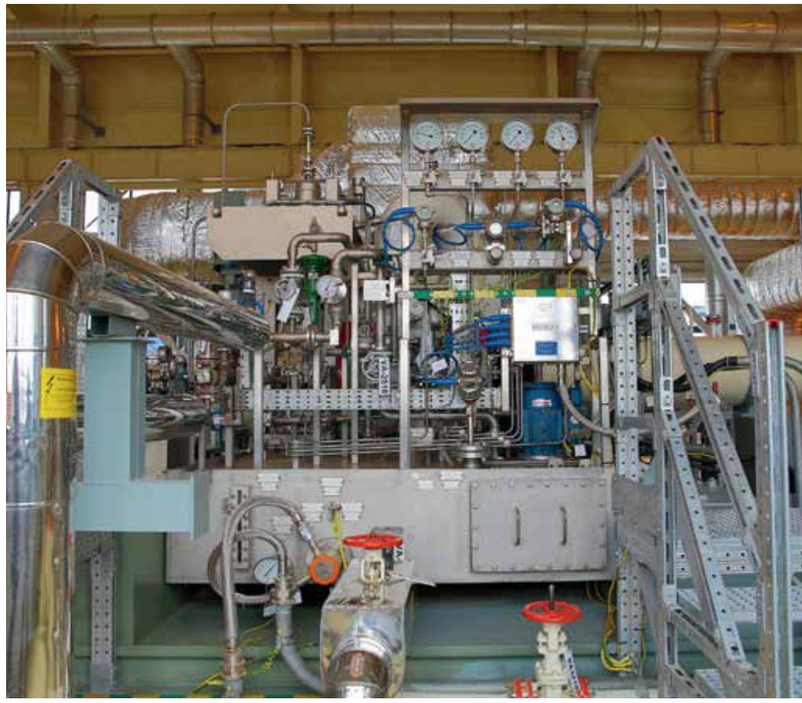
CARRYING OUT WORK ON THE DBNP AT AN OPERATING FACILITY REQUIRES CONSTANT ATTENTION FROM THE OPERATION SERVICE

By the time the "CPC Panorama" correspondents arrived at the end of May 2021, all 11 modules of the builders' camp had been installed near the PS. In particular, the production and technical department, workplaces for representatives of the customer's construction control and field supervision, a room for storing documentation were placed here. Contractors prepared sites for the installation of frequency converters and the transfer of a diesel power plant directly at the station.

Last year, due to well-known world events, most of the time PS-2 operated with two main pumps. This year, the operating mode has already become familiar with three units. Carrying out work on the DBNP at an operating facility requires constant attention from the operation service. Vigilant control is guaranteed, among other things, by the rich experience gained by the plant's operating personnel during the CPC Expansion Project completed several years ago. For example, Mikhail Popov, the Deputy Manager of PS-2, who accompanied us through the production area, has been working in the CPC international project for a decade and a half. Participated in the commissioning of new facilities at the upgraded Astrakhanskaya PS, supervised the launch of A-PS-4A and A-PS-5A, completed the construction of PS-2.

"We have an excellent cooperation with the construction contractor: The expansion project has tempered the team, and we all know in advance where to tell the builders what to pay special attention to. Specialists of the CPC Astrakhan office - electricians, mechanics, instrumentation and automation engineers – provide us with great support in the preparation of admission documents. They control the process when work takes place near their existing communications. Both the regional manager and the operation and maintenance manager of the CPC Central region are constantly in touch", says Mikhail Popov.

During the implementation of the DBNP, the workload of the shift supervisors has noticeably increased. They take part in the admission of contractors, register work permits, receive reports on the beginning and end of construction operations, record the volume of work in a daily summary.



"The most intense period will come when the program enters the stage of commissioning and connection of new equipment to the SCADA system, its integration into the logic of the entire pipeline operation", forecasts the head of the PS-2 shift, Kirill Melnikov. "Then there will be more tasks for us, for electricians, and for instrumentation and automation engineers".

Construction will reach the main peak of work with the maximum number of people in late summer – early autumn 2021. In the first half of next year, it is planned to conduct a comprehensive approbation in order to complete all construction and installation works in June 2022. Within the framework of the DBNP, PS-2 was "designated" as a pilot station, which means that construction, installation and commissioning works on the new VFD will be practiced there, and this experience will be extended to all other reconstructed facilities of the CPC Central Region.

AUTHOR
PAVEL KRETOV

WITH MUTUAL SUPPORT

ON SATURDAY EVENING, AUGUST 7TH, THE ALARM SIGNAL WAS THROUGH THE CPC MARINE TERMINAL. FOR THE FIRST TIME IN THE 20-YEAR HISTORY OF THE OPERATION OF THE OIL PORT, THIS SIGNAL WAS NOT A TRAINING ONE

HOW IT WAS

At 16:49 Moscow time, the ship mooring foreman reported on the release of oil from the single-point mooring (SPM-1) during the loading of the Minerva Symphony tanker. In accordance with the procedure, the valves of the corresponding pipelines were immediately closed. The Oil Spill Prevention and Response Plan was put into effect. CPC General Director Nikolay Gorban urgently flew to Novorossiysk – by the evening of the same day he was at the scene. The meeting of the Operations Management Headquarters (OMH) was announced at the Marine Terminal, which included both the CPC management and representatives of all state supervisory authorities. No matter what some media later claimed about the attempts of the Consortium employees to conceal the "cosmic" scale of the incident, all relevant departments were immediately informed about the incident according to the notification scheme. The operation to eliminate the consequences was carried out in front of representatives of the EMERCOM, Rosprirodnadzor, the Prosecutor's Office, and other observers. They saw all the maneuvers of the ships, the sequence and results of the actions of the emergency crews.

"The forces and means of Transneft Service LLC worked very quickly, earlier than the established time standards", said the head of CPC at a press conference on August 13. "Four emergency orders were placed almost instantly. If not for these coordinated actions, then the consequences could be much worse".

In difficult weather conditions, the emergency rescue units completed the localization and liquidation of the oil spill over an area of about 200 square meters by 22:42 Moscow time and began monitoring. CPC environmental engineers, together with specialists from the contractor and independent laboratories, organized monitoring of the state of atmospheric air and water in the water area of the Marine Terminal and coastal areas.

NO REASON FOR PANIC

During the elimination of the consequences of the emergency, oil shipment at the CPC Marine Terminal was temporarily stopped. As of the morning of August 8, the situation was normalized and did not pose a threat to the local population, flora and fauna of the Black Sea.

On August 12, 2021, the Governor of the Krasnodar Krai Veniamin Kondratyev and CPC General Director, together with media representatives, flew a helicopter over the waters and the Black Sea coast from the Marine Terminal in Yuzhnaya Ozereevka to the beach in Durso, where they talked with vacationers.

"As a result of the flight, we saw that the sea is clear at the moment. There are no reasons for panic, threats to tourists and the Black Sea coast. The most important thing for us today is that everything was promptly eliminated", commented on what he saw Veniamin Kondratyev.

On August 13, Rospotrebnadzor published the official results of the inspection of the Black Sea water area. "The content of oil products in seawater samples in the recreational zones of the Novorossiysk and Anapa water areas does not exceed the maximum permissible concentration (MPC)", the message said.

OPERATIONS MANAGEMENT HEADQUARTERS (OMH) WAS INCLUDED REPRESENTATIVES OF ALL STATE SUPERVISORY AUTHORITIES

FACTS AND FIGURES

Regional environmental specialists also kept their finger on the pulse. The results of sea water and air samples taken daily for two weeks after the incident were reported by the independent laboratories "Sphere" and "Kuban ECOproject". They monitored the ecological situation in the water area of the Marine Terminal and in the adjacent areas, took water and air samples, the Consortium initiated the sampling of bottom sediments.

Thus, according to data on August 14, the content of oil products in the water of the dolphinarium in Bolshoy Utrish did not exceed 0.02 mg per 1 liter. There was no smell of oil products. In the previous days, the

indicators were similar. The norms of maximum permissible concentrations of harmful substances (MPC) have not been exceeded anywhere.

The content of oil products on August 14 in water at a depth of 30 cm, 100 meters from the SPM in the northeastern direction was 0.03 mg per 1 cubic dm. Subsequently, it decreased to 0.02 mg per 1 liter. The results of the "Sphere" research were documented by the testing laboratory of the Novorossiysk Educational and Research Marine Biological Center (a branch of the Kuban State University).

Experts noted that with the existing MPC for oil products in fishery water bodies - 0.05 mg per 1 cubic dm – the water in the Marine Terminal water area and adjacent areas a week after the incident contained 2.5 times less pollution in terms of the main parameters than this is allowed by existing regulations.

The air, which was measured at 10 points – on beaches, in villages from Yuzhnaya Ozereevka to Bolshoy Utrish, on the border of the Marine Terminal's sanitary protection zone - also turned out to be several times cleaner than the permissible pollution standards. Thus, the content of saturated hydrocarbons and benzene (the main "aromatic components" of oil products) in it for two weeks of measurements turned out to be 4-6 times lower than the values of the average daily MPC.

On September 9, the results of sediment samples taken by the "Sphere" laboratory in the beach in Yuzhnaya Ozereevka and off the coast a little east of the Marine Terminal were published. The main signs of the precipitation of heavy oil fractions: copper, lead and zinc were studied. Their number did not exceed the threshold for detecting oil products in bottom sediments. Thus, the myth about "an oil slick visible from space, which disappeared literally in a day due to sedimentation to the bottom and evaporation", was finally dispelled.

ACCORDING TO THE RESULTS OF THE BOTTOM SEDIMENT SAMPLES, NO PETROLEUM PRODUCTS WERE FOUND IN THEM

THE MAIN VERSION

A special commission was set up to investigate the causes and conditions that led to the incident. It immediately became obvious to specialists that the cause of the incident was the destruction of the internal cavity of the hydraulic compensator, which is an integral part of the SPM. The experts were instructed to consider various versions of what happened, the main of which was a hidden factory defect.

At the same time, a comprehensive inspection of all similar equipment was carried out. All hydraulic compensators were carefully examined, and no defects were detected. The supplier received an order for a new batch of hydraulic compensators and rather quickly - in 20 days - these parts were delivered to the Marine Terminal.

On September 5, specialists of Transneft Service LLC replaced both hydraulic compensators at SPM-1. The operation was carried out in accordance with the manufacturer's technical documentation and in compliance with the requirements of the state regulatory authorities of Russia. Upon completion of the acceptance hydrotesting, the repaired SPM-1 will be re-commissioned, and both hydraulic compensators will be replaced with SPM-2.

At a press conference on August 13, CPC General Director noted that until March 2021, a foreign company had performed maintenance and operation of the SPM, and Russian specialists did not have any access to either the equipment or the documentation for it.

"Now a domestic company is engaged in this work. Now we are in full control of the situation, we are considering issues of maintenance and the purchase of components", Nikolay Gorban emphasized.

RELIABILITY IN CRISIS

The planned replacement of SPM-1 and SPM-2 is planned for 2022 - 2023. The whole range of works will be carried out in stages.

"This is a serious equipment designed for the storm loads of the Black Sea, therefore, when designing, we carefully double-check everything: anchor chains, a supply pipeline. Without meeting the necessary reliability requirements, we will not give the go-ahead for production", explained CPC General Director.

The oil shipment, which had been stopped during the elimination of the consequences of the incident, was resumed the very next day, August 8, after the pipeline systems had been checked. The abnormal situation did not affect either the implementation of the annual transportation plan, or the rate of dividend payments to shareholders, or the progress of the Debottlenecking Program, including at the Marine Terminal.

Among the questions asked by journalists at the press conference was the following: how did the incident affect the morale of CPC employees?

"In a crisis situation, the consortium team showed high moral and volitional qualities", Nikolay Gorban answered. "I talked with specialists here in Novorossiysk, in the Moscow office, and in Krasnodar - everyone supports each other, continuing to work professionally and as smoothly as possible. The company's management and shareholders thanked CPC employees and contractors for their prompt actions, for the reliable work of everyone in their place during this difficult period"

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SPIEF: ECONOMY OF NEW REALITY

THE ST. PETERSBURG INTERNATIONAL ECONOMIC FORUM, HELD AT THE BEGINNING OF JUNE 2021, BECAME THE FIRST AND LARGEST BUSINESS EVENT IN THE WORLD IN THE "FACE-TO-FACE FORMAT" AFTER A FORCED BREAK DUE TO THE PANDEMIC

The President of the Russian Federation Vladimir Putin, world leaders, heads of major Russian and foreign companies and banks, leading experts from among representatives of science, the media and the business community took part in the SPIEF-2021.

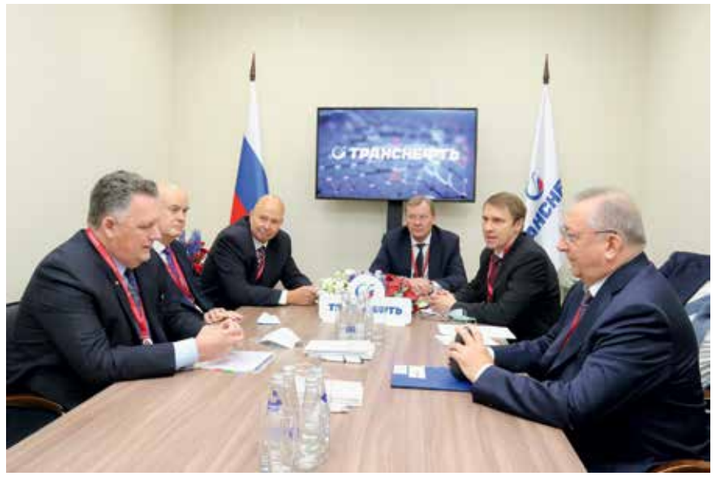
Over the four days of the forum, over 1,300 Russian and foreign speakers, moderators and politicians spoke to the participants. They shared their knowledge and experience in four thematic areas dedicated to the issues of the economic, social and technological agenda: "Uniting efforts for development", "National development goals: from tasks to results", "Man in a new reality. Responding to global challenges", "Technologies expanding horizons".

At sessions devoted to energy issues (on a global and Russian scale), leading experts noted that, according to the forecast, by 2050 the world's energy balance will be based on hydrocarbons, and their share will be at least 71%. The era of oil and gas will not end in the near future and traditional energy carriers will retain their role. At the same time, Russia, having a clear Energy Strategy, develops both traditional and "clean" energy.

The agenda of the delegation of the Caspian Pipeline Consortium was rich and varied at the forum. Meetings were held with the heads of CPC shareholder companies – Transneft PJSC, NC KazMunayGas JSC, Chevron Corporation, LUKOIL PJSC and others. Within the framework of these meetings, the results of CPC's production activities in 2020 and for the first five months of 2021, progress in the implementation of the Debottlenecking Program and other issues were discussed. The heads of the shareholder companies expressed satisfaction with the work of the Consortium and the dynamics of its development. Oil and gas colleagues shared their experience of successfully solving production problems in the context of restrictive pandemic measures, preserving the life and health of personnel.

As part of the SPIEF-2021 program, a memorandum of cooperation and interaction between CPC and a large Russian company providing telecommunications services, MTS PJSC, was signed. The parties agreed to develop cooperation aimed at the implementation of infrastructure projects and projects to improve the mobile network in offices and production sites of CPC-R JSC, as well as to organize modern digital mobile services based on the MTS PJSC network in the interests of the international consortium.

On the sidelines of the forum, negotiations were held with a



delegation from Siemens AG. CPC has been cooperating with the German concern since the initial stage of construction of the Tengiz – Novorossiysk pipeline system facilities. Active cooperation continued during the implementation of the CPC Pipeline System Capacity Expansion Project in 2010-2017. And in 2019, the parties signed a contract for the maintenance of gas turbine units and the supply of spare parts, calculated for five years.

The participation of AVEVA and Schneider Electric in the Debottlenecking Program was discussed at a meeting with the management of these companies. The contractors are currently executing a contract to provide modernization services for the current dispatch control and data acquisition system (SCADA OASyS), leak detection system (SimSuite) and operator training system (OTS) in Russia and Kazakhstan.

Negotiations between CPC and 1C were held at the exhibition site of a Russian IT developer. The leaders exchanged views on the prospects for the integrated implementation of the 1C product of an oil transportation enterprise were considered: production, design, financial and accounting, both in national standards and in IFRS.

THE AGENDA OF THE DELEGATION OF THE CASPIAN PIPELINE CONSORTIUM WAS RICH AND VARIED AT THE FORUM

The CPC delegation discussed the implementation of the consortium's charitable program with the heads of a number of constituent entities of the Russian Federation. Meetings were also held with representatives of various credit and financial organizations, who presented their proposals, in particular, in the field of insurance and salary projects.

It should be noted that the forum was held in compliance with unprecedented sanitary and epidemiological safety measures. The main condition for access to the territory of the Forum for all categories of participants was a PCR test for Covid-19 infection, on the negative result of which the accreditation badge was activated.

In total, over 50,000 coronavirus studies were carried out during the preparation and holding of SPIEF. In all cases, a full range of anti-epidemiological measures was taken. At the entrances to the Forum site, checkpoints were installed with temperature measurement using thermal imagers and manual thermometers, and strict verification of the use of personal protective equipment was ensured.

One of the results of the Forum was the development of new safety standards for holding major international events. A complex of anti-epidemiological measures for them was developed with the participation of the World Health Organization.

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MAIN IN BRANCH

ON APRIL 26-29, MOSCOW HOSTED THE XX INTERNATIONAL EXHIBITION "EQUIPMENT AND TECHNOLOGIES FOR THE OIL AND GAS COMPLEX" – "NEFTEGAZ-2021" – IN WHICH THE CASPIAN PIPELINE CONSORTIUM TOOK PART

The "Neftegaz" exhibition, which has been held since 1978 at the Expocentre on Krasnopresnenskaya embankment, has long established a reputation as the main industry event. The exhibition is supported by the Ministry of Energy and the Ministry of Industry and Trade of the Russian Federation, as well as the Chamber of Commerce and Industry of Russia.

Over the four days of the "Neftegaz-2021" exhibition, where more than 400 participating companies from 20 countries of the world presented their products and technologies, over 12 thousand people visited it. The visitors of the CPC stand were representatives of oil and gas companies producing specialized equipment, specialists in related industries, scientists, students of specialized universities, journalists.

At its stand, the Consortium presented information about production activities, as well as achievements in the field of labor protection, industrial safety and environmental protection (HSE). The stand exposition included a model of a single-point mooring (SPM) and a three-dimensional figure of the "Kaska" character, the personifying CPC expert in the field of HSE. Since 2020, this corporate symbol has been used in all information materials intended both for training personnel of the Consortium's production facilities and for external users.

As part of the exposition site and the National Oil and Gas Forum held at the Expocenter, CPC executives held a number of meetings with representatives of shareholders, partners and contractors, got acquainted with current industry trends and technical solutions. In particular, the Consortium management visited the exposition of Transneft PJSC, as well as a number of stands of manufacturers and suppliers of equipment operated at the Consortium facilities, such as Siemens, Sintek, Oil and Gas Systems (OGS), TRAM Engineering JSC. The innovations and improvements currently proposed by the manufacturers were considered, issues of possible future cooperation were discussed.

AUTHOR
AINA ZHETPISBAEVA

NEW OFFICE IN ATYRAU

IN MAY 2021, EMPLOYEES OF THE EASTERN REGION CELEBRATED A "HOUSEWARMING PARTY". THE ATYRAU OFFICE OF CPC-K HAS CHANGED ITS ADDRESS, MOVING TO THE BUSINESS CENTER "GRAND ASIA" ON ABILKAIR KHAN AVENUE

The new office of the Caspian Pipeline Consortium in Atyrau is located in a Class A building – newly built, with an increased level of comfort, located in a promising, developing area of the city. During the construction of the new office, not only classic parameters of comfort were taken into account (such as innovative life support systems, infrastructure and safety), but also proposed new planning solutions that meet the expectations of the CPC-K team. Thanks to these solutions, each working group received its own space, ensuring the confidentiality of processes and increasing the level of information security of the company.

One of the main features of the new building is a panoramic glass facade, which offers views of the city. CPC office has almost 2,500 m² and can accommodate up to 150 people. There is also a conference hall, meeting rooms and rooms for guests, a dining area for employees.

On May 23, CPC General Director Nikolay Gorban, General Operations Manager Vladimir Shmakov, Deputy General Director for Relations with the Government of the Republic of Kazakhstan Kairgeldy Kabyldin took part in the opening ceremony of the CPC office in Atyrau.

The head of the Atyrau region Makhambet Dosmukhambetov came to congratulate the staff of the Eastern region of CPC on the new home. "CPC today is not only the largest transporter of Kazakh oil, but also a socially oriented company", emphasized Makhambet Dosmukhambetov. "For my part, I express my gratitude to you for the significant contribution you make to the development of regional medicine and healthcare".

On the same day, the signing ceremony of the Cooperation Agreement between the authorities of the Atyrau region and the Consortium took place in the new office. The parties agreed on long-term and stable cooperation in order to further develop and improve the efficiency of regional fuel and energy complex facilities, increase the throughput of the Tengiz – Novorossiysk oil pipeline, strengthen the financial and economic situation, increase production potential and improve the investment climate of the Atyrau region.

"The consortium will continue to actively implement large-scale social programs in the areas where the pipeline passes, providing sponsorship and charitable assistance. CPC commits itself to build a secondary school for 900 places in the Talgairan residential area in Atyrau in 2021–2023", Nikolai Gorban said during the meeting.

Regional Manager of the Eastern Region of CPC Mukhit Mazhenov is set up for positive results of the team's work in the new office and looks to the future with confidence: "We are pleased to welcome our employees to this new, incredible building. The main value of our company is its people, many of whom have been working for the company for more than 10 years, providing year-round uninterrupted oil transportation. By creating more comfortable conditions for them, we wanted to emphasize the importance of each employee for our company. The functional design and advanced technologies of the new office will allow our team to work even more efficiently and effectively, continuing the successful implementation of production plans".

WHEN CREATING A NEW OFFICE, WE TOOK INTO ACCOUNT NOT ONLY THE CLASSIC PARAMETERS OF COMFORT, BUT ALSO PROPOSED NEW PLANNING SOLUTIONS

As previously reported, due to the COVID-19 pandemic and quarantine measures, 80% of employees in the Eastern Region have switched to remote work. Due to compliance with the norms of sanitary and epidemiological surveillance of the Republic of Kazakhstan, the new building has become a place of safe meetings and effective organization of work processes for both individual working groups and individual projects.

AUTHOR:
OLEG ARUTYUNOV,
ENVIRONMENTAL ENGINEER, STARSTROY LLC

CLEAN WORK

ENSURING ENVIRONMENTAL SAFETY AND NATURE PROTECTION ARE THE PRIORITY TASKS OF THE PRODUCTION ACTIVITIES OF STARSTROY LLC

The production activity of industrial enterprises in one way or another affects the state of the environment. Therefore, environmental safety issues are in the first place when organizing the work of any modern company.

Since 2001, STARSTROY LLC has been performing a range of contracting services for maintenance and emergency response at the linear part and facilities of the Caspian Pipeline Consortium. On the territory of the Astrakhan Oblast, Republic of Kalmykia, Stavropo Krai and Krasnodar Krai, nature protection issues are considered one of the highest priority. Being in constant contact with colleagues from CPC, STARSTROY specialists ensure compliance with environmental safety requirements at three levels: environmental risk assessment during work planning, maintenance of production facilities, and personal "environmental responsibility" of each employee.

STARSTROY company has developed and operates a "Regulation on the management system of industrial safety, labor protection and environmental protection", which describes in detail the methods and rules used by the Contractor in the field of health, safety and environmental protection. The company's environmental activities are based on the principles laid down in the corporate Policy in the field of quality, ecology, labor protection, prevention of occupational diseases and industrial safety. As priority tasks, the Policy outlines concern for environmental protection, reducing the negative impact from of their own production activities, maintaining a favorable environmental situation. These principles are the basis of the production activities of STARSTROY in the implementation of projects.

In 2008, STARSTROY was awarded the prize of the Ministry of Natural Resources and Ecology of the Russian Federation for "The Best Environmental Project of the Year", when presenting the cup, the Minister of Natural Resources and Ecology of the Russian Federation Yuri Trutnev noted: "...the award of the Ministry of Natural Resources and Ecology is a kind of environmental certificate of the enterprise, each winner is entered into the register of environmentally conscientious enterprises, which is formed by the Ministry of Natural Resources and Ecology and receives the right to use the official sign "Environmental Project of the Year", approved by the Government of the Russian Federation".

BEING IN CONSTANT CONTACT WITH COLLEAGUES FROM CPC, SPECIALISTS OF STARSTROY ENSURE COMPLIANCE WITH ENVIRONMENTAL SAFETY REQUIREMENTS

In 2012, STARSTROY implemented and certified the Environmental Management System (EMS) based on the international standard ISO 14001. In 2018, the company's EMS was recertified for compliance with

the new version of the standard - ISO 14001:2015.

In 2017, the "Year of the Ecology in Russia" started and the HSE service of STARSTROY was instructed to improve the overall performance in this area in all divisions of the company. Among the measures taken, improvements in waste management were introduced. Part of the waste that was previously sent for storage and disposal began to be transferred for recycling. Selective collection of such waste was organized at all facilities of the enterprise. In this regard, the amount of waste transferred to Solid Municipal Waste landfills and disposal has decreased. All divisions of the company carried out modernization of sites for temporary accumulation (storage) of waste.

FUNDS ARE ANNUALLY ALLOCATED TO THE BUDGET OF STARSTROY FOR THE IMPLEMENTATION OF ENVIRONMENTAL PROTECTION MEASURES

One of the most important tasks of our time - the rational use of natural resources - was successfully solved in such subdivisions as "Gaiduk" Production Service Base and Emergency Recovery Points (ERP), "Krizhanovsky", "Kropotkin", "Manych", "Komsomolskaya", "Astrakhanskaya". There were installed modern treatment plants for washing vehicles, which make it possible to reuse water in a cycle. Modernization of storm sewers in a number of departments has ensured a decrease in pollution of surface and ground waters. The introduction of modern machinery and equipment into production has also helped to reduce air pollution. At the same time, the adjustment of the necessary regulatory documentation and the receipt of permits contributed to the reduction of the legally established payment for negative impact on the environment (NIE).

The main tool for the development of environmental responsibility of the personnel of STARSTROY is the constant training of the company's employees in the field of environmental protection.

IN CONSTANT CONTACT

To date, the STARSTROY company operates seven production service bases, 11 oil pumping station maintenance groups and one MT group in the


TÜV NORD

СЕРТИФИКАТ

ISO 14001 : 2015

Общество с ограниченной ответственностью «СТАРСТРОЙ» (ООО «СТАРСТРОЙ»)

maintenance project of the CPC main oil pipeline facilities. All these divisions have the necessary design and permits in the field of environmental protection. A license was issued for "Carrying out activities for the collection, transportation, processing, utilization, disposal of waste of I – IV hazard class".

In addition to maintenance, STARSTROY also carries out a number of construction, reconstruction and major repairs at CPC facilities. When performing these works, such environmental measures are implemented as the analysis of scenarios of possible emergency situations at the customer's facilities, ensuring the protection of atmospheric air, ensuring the protection of water resources, organizing measures for handling hazardous waste, protecting land resources, flora and fauna, developing measures for reducing the impact of harmful physical factors.

Environmental protection specialists of CPC-R and STARSTROY are a community of qualified like-minded people with many years of experience in cooperation. As a result of the joint and well-coordinated work of the customer and the contractor, the maintenance of the main oil pipeline facilities is carried out in compliance with national and international environmental standards, with predicting environmental risks and improving technologies for taking preventive measures, supporting biodiversity, with open reporting on environmental activities.

Funds are annually allocated to the budget of STARSTROY for the implementation of environmental protection measures. The identification and assessment of environmental aspects is carried out with the same frequency in all divisions of the company, which allows to prevent risks, assess the results achieved and improve the environmental component of production processes.

The HSE service of STARSTROY coordinates and ensures work in the regions aimed at compliance with environmental legislation, provides the necessary methodological and informational support, monitors the implementation and compliance with the requirements of environmental legislation, norms and rules. Attention is constantly paid to such criteria as prevention and reduction of air, water and soil pollution, prevention and reduction of noise exposure, preservation of flora and fauna, industrial environmental monitoring, modernization of temporary waste storage facilities, selection of counterparties for their disposal, personnel training.

Taking care of the environment is an integral part of the work of STARSTROY LLC. CPC's general maintenance contractor strives to minimize the negative impact on the environment through the use of well-developed work methods and skills.


ЛИЦЕНЗИЯ

AUTHOR:
PAVEL KRETOV

VOLGA DAY

TODAY'S CHILDREN ARE TOMORROW'S LEADERS, MANAGERS AND ENTREPRENEURS. BECOMING ADULTS, THEY WILL MAKE VARIOUS IMPORTANT DECISIONS EVERY DAY. THE ENVIRONMENTAL EDUCATIONAL PROJECT "PROTECT NATURE OF OUR NATIVE LAND" IS AIMED AT ENSURING THAT SUCH DECISIONS ARE ALWAYS MADE WITH CONCERN FOR THE ENVIRONMENT AND WITH A SENSE OF RESPONSIBILITY TO FUTURE GENERATIONS

It is symbolic that this year the summing up of the environmental education project and the release of juvenile sturgeon coincided with the Volga Day holiday. On May 20, the event began at the pier of the base of the Volga-Caspian branch of the Russian Federal Research Institute of Fisheries and Oceanography (CaspNIRKh) in the village of Ikryanoye, where the participants were able to view the sturgeon juveniles raised for release.

"Look into the eyes of the children taking part in the project - they will never forget the day when they picked up live fish and released it into their natural habitat", notes CPC Deputy General Director for Government Relations Mikhail Grishankov.

The eyes of the Astrakhan schoolgirl Daria were just such enthusiastic.

"I really enjoyed releasing the sturgeon into the water. I believe I saved its life. It will grow up and become a worthy individual", the participant shared.

150 open lessons in schools and social rehabilitation centers of the Astrakhan region were conducted by young scientists and specialists from CaspNIRKh. This year, the topic of the lesson was the preservation of sturgeon fish species - unique relict species that have come down to us since the time of dinosaurs.

An obvious fact: in order to convince other people, one must also be a convinced person.

"For example, Ekaterina Yakovleva, the chief fish breeder of the "BIOS" experimental aquaculture complex. A few years ago, there was an alarming period of stellate sturgeon regression at our complex. Difficult in the conditions of detention, the fish lost weight. Ekaterina literally took each of them in her hands and fed them with pellets with food. And only thanks to her enthusiasm, we managed to turn the tide, start natural life processes and save the livestock", recalls Vitaly Plyukhin, head of the Volga-Caspian branch of the FSBSI "VNIRO" ("CaspNIRKh").

The correspondents of "Panorama CPC" also had the opportunity to meet a unique specialist. Ekaterina Yakovleva is confident that all juveniles released within the framework of the projects are perfectly adapted in their natural environment.

"Babies" receive on the basis of pool cultivation exactly those live feeds that they will meet in water bodies. And they retain the instinct for natural nutrition", says Ekaterina.

After the release of the fish, the participants were invited to a festive concert, where the winners of creative competitions were awarded. Works of 44 authors were awarded with gift certificates. In particular, the winner of the literary competition was Svetlana Shcheglova, who submitted the essay "Help me survive" to the competition. The girl considered the actual problem of sturgeon fishing in the Caspian Sea. And Iliana Isabekova took the first place for her artistically designed fairy-tale book.

"My tale is about how friends of sturgeon Ashuluk help him to return home", she says.

Laureates in various nominations also became members of the dance group of the center for helping children "Youth" from the city of Narimanovo, who brought the "Takata"dance and a pupil who sang the poem "On that river he was considered a king".

Currently, CaspNIRKh conducts comprehensive research on natural and artificial reproduction.

THE JUVENILES PRODUCED WITHIN THE FRAMEWORK OF THE PROJECT PERFECTLY ADAPT TO THE NATURAL ENVIRONMENT

For six years of implementation of the joint project of CPC and CaspNIRKh, about 140 thousand individuals of Russian sturgeon, beluga and sterlet have been released into the Volga. Studies show that due to a set of measures taken, it was possible to stabilize the population of the Russian sturgeon in the Caspian. During regular river and sea voyages, CaspNIRKh specialists catch samples of juveniles, which are then analyzed in their own molecular genetic center. So you can distinguish fish obtained from natural reproduction from artificially reproduced.

Working with genetic passports has another applied meaning: the further along the degree of kinship the parental pair, the more viable the juveniles are.

"Recently, together with the Moscow branch for freshwater fisheries of the "VNIRO" Federal State Budgetary Scientific Institution, we carried out scientific work on the fertilization of beluga eggs with cryopreserved material of the 1980s. The experiment made it possible to restore two lost alleles in the DNA chain, which will have a positive effect on the population", says Vitaly Plyukhin, head of the Volga-Caspian branch of the FSBSI "VNIRO" ("CaspNIRKh").

Scientists note the uniqueness of the study. The juveniles obtained in its course entered wintering with an increase in weight of 600-700 grams, while the fish of the control samples had no more than 500 grams.

No less interesting research is being carried out in the field of creating hybrid forms. For example, a fish derived from beluga and sterlet, the so-called bester, when grown in fish factories, matures three times faster than their natural relatives and gives twice as much caviar.

To help entrepreneurs engaged in commercial aquaculture farming, CaspNIRKh scientists are currently developing a method for growing Australian red-clawed crayfish. Experiments show that despite the heat-loving nature, with a properly selected diet, they reach 80 grams in just a season, and an ordinary Russian crayfish grows up to such indicators for three years.

AUTHOR:
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GOVERNMENT RELATIONS DEPARTMENT,
CPC-R

SINCERELY OURS

SEVERAL BOOKS HAVE BEEN WRITTEN ABOUT HOW V. E. CHAIKIN LIVED BEFORE THE CPC. PUBLISHED IN SMALL EDITIONS, THEY HAVE DISPERSED, MAINLY AMONG FORMER COLLEAGUES IN THE SVR. HE RARELY WEARS A UNIFORM WITH AWARDS, ON BIG HOLIDAYS

For all his natural modesty, for almost 17 years of work at CPC, Vladimir Evgenievich has become a recognizable person in Novorossiysk. Here they know him for charitable projects and programs, for meetings in city squares and in "fateful" offices, for TV plots.

What is "relations with local authorities"? These connections are related not only to the safe and coordinated activities of the international Consortium with the city administration, but, first of all, to the development of the social sphere of the hero-city. These are school and preschool education, health care and culture, children's physical development, urban infrastructure, assistance to residents with disabilities.

Buses and trolleybuses with side markings "CPC for Novorossiysk" are well known to every citizen. Schools receive special buses for children from the Consortium, which is especially important in rural areas. Furniture and the latest multimedia equipment are purchased for kindergartens and schools. First-graders celebrate the Day of Knowledge with a full set of educational accessories, and for the New Year, children receive almost a whole bag of Santa Claus as a gift.

The advanced medical equipment acquired by CPC for municipal hospitals and polyclinics allowed a huge number of patients to recover their health, and to save their lives. In the cultural and creative centers of the city, children and youth instruments and equipment received as a gift from CPC help to master music, vocals, choreography. Who knows, maybe new Rachmaninovs, Chaliapins, Plisetskys are growing here?

HE WILL ALWAYS WELCOME ANYONE; HE WILL FIND THE RIGHT WORDS FOR EVERYONE

But buying and delivering is just the "tip of the iceberg" of the social and charitable program. The organization of each such project "on the spot", in cooperation with various functional structures, is a very complex and time-consuming process. Many nuances, subtleties are invisible not only to an outsider, but sometimes also to many colleagues: they are routine, but extremely necessary and important. Having supported and pleased some, it is impossible to leave others "deprived" and offended. And since the company's targeted assistance is aimed more at the younger generation (so emotional and impetuous), it is extremely difficult to choose the best option.

«I.A. DYACHENKO, HEAD OF THE MUNICIPALITY, NOVOROSSIYSK:
Dear Vladimir Evgenievich! On my own behalf and on behalf of all my colleagues, I express my deep gratitude to you for many years of conscientious work as part of the team of the Caspian Pipeline Consortium.

It has always been easy and comfortable to work with you, all joint events were clear and well-coordinated. I wish you on a well-deserved rest to find a business to your liking, to maintain a positive attitude and a desire to be useful to society.

«N.V. MAYOROVA, DEPUTY HEAD OF THE MUNICIPALITY, NOVOROSSIYSK:
Dear Vladimir Evgenievich! On my own behalf and the entire team of the administration of the Municipality of Novorossiysk, I would like to thank you for your high-quality and effective work, thanks to which our interaction with the Caspian Pipeline Consortium has always been clear and transparent.

A press release prepared on time, clear agreements on the details of joint events - we have always felt and seen your professional approach.

I wish you the same responsible approach to organizing your well-deserved rest, to make it as useful and interesting as possible.

Vladimir Chaikin always managed to take into account and wisely resolve all these subtleties. Kindness and love for people, responsiveness and decency, attentiveness and inner discipline, punctuality – these are important qualities in "work on relations" he inherited from his mother, who taught at one of the regional universities. By the way, Vladimir Evgenievich himself has a higher pedagogical education, which undoubtedly helps him both in work and in life.

The team knows him as a person who is ready to help at any time. To help colleagues or their family members with doctors, to resolve the issue with a kindergarten or a school closer to the place of work – Vladimir Chaikin will always respond to a request. Possessing vast life experience, he will help you find a way out of any situation.

The doors of his office are open not only for colleagues. Everyone comes - the municipalities with their own questions that require the attention of CPC, the elderly, parents from disadvantaged families. He will always welcome everyone; he will find the right words for everyone. There has never been a case of someone leaving without good advice, constructive support, or an encouraging offer. He tries to cheer up everyone, always listens and treats them to tea. And Vladimir Yevgenyevich has an excellent sense of humor, it often helps to solve work issues, find a way to understanding.

In vain, many equate kindness and "softness". If necessary, Vladimir Chaikin can be strict, and tough, and extremely demanding. Those who recognize him as such are unlikely to decide the next time for something that goes beyond the code of business conduct, for some "maneuvers" outside the framework of obligations under the formed social projects.

For all his business employment, he remains a very sincere person, attentive to family and friends, a real family man. The family is big: two daughters, a son, many grandchildren. His wife Galina Ivanovna is a charming woman, a wonderful hostess, a true keeper of the hearth. For many years she has provided her husband with a reliable rear. And what else is needed for moral peace, rest after work, good mood? The youngest grandson, who has not yet turned three years old, tries to immediately get into his arms when his grandfather comes home from work. But Vladimir Evgenievich himself is happy about it. It is impossible not to mention one more "family member" - this is the English Cocker Spaniel Beam, a devoted friend, attentive listener, reliable companion.

On February 2, 2021, Vladimir Chaikin turned 67 years old. It is quite a "combat-ready" age for a person full of strength and energy, for a high rank of managers and politicians – youth in general, but Vladimir Evgenievich decided to "switch" and pay more attention to the family.

On April 19, 2021, he was escorted to a well-deserved rest by the entire Novorossiysk office. They wished him good health for many years, family happiness and love of relatives and friends, rest on their favorite fishing. And they asked not to lose touch, to help taking into account the richest professional experience. What Vladimir Evgenievich "guaranteed", thanking his colleagues and wishing them new successes and achievements for the good of the city and the company.

A.I. YAMENSKOV
DEPUTY HEAD OF THE MUNICIPALITY, NOVOROSSIYSK:

Dear Vladimir Evgenievich! Please accept my sincere congratulations on your well-deserved rest. I am sure you were able to realize in your position all your potential, your professional ambitions and desires.

The period of cooperation with you will be remembered as a time of clear and well-coordinated interaction. We were always calm about the outcome of any event with the Caspian Pipeline Consortium, if you had a hand in its organization.

Thank you for your work! I wish you good health, joy and new pleasant concerns with your family and friends.

S.V. KALININ
FIRST DEPUTY HEAD OF THE MUNICIPALITY, NOVOROSSIYSK:

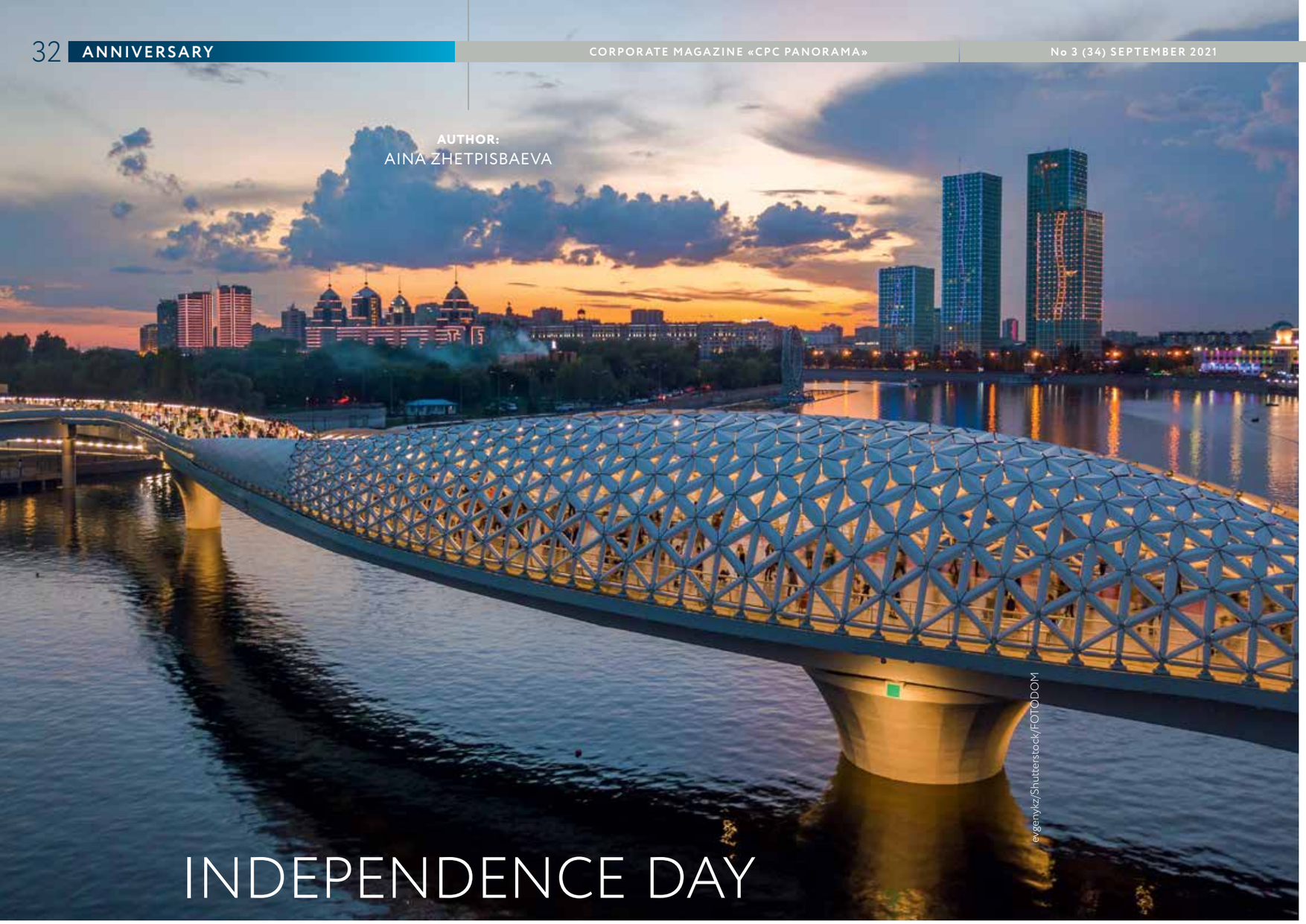
Dear Vladimir Evgenievich! For many years we have been working with you with great pleasure within the framework of the city's cooperation with the Caspian Pipeline Consortium.

During this time, many useful projects for the city have been implemented. With your help, we were able to convey this information to our residents in a timely and reliable manner.

Thank you for your competence, openness, efficiency and responsible approach to business. Thank you very much for your cooperation, your achievements and results for the benefit of our city. I wish your family good health and well-being! It is very pleasant to be acquainted with such a strong person as you. Always in touch!

AUTHOR:
AINA ZHETPISBAEVA

INDEPENDENCE DAY



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THIS YEAR, THE COUNTRIES THAT WERE REPUBLICS OF THE SOVIET UNION ARE 30 YEARS OLD. KAZAKHSTAN, IN THOSE YEARS – THE KAZAKH SOVIET SOCIALIST REPUBLIC - AFTER THE COLLAPSE OF THE USSR ON DECEMBER 16, 1991, PROCLAIMED ITS INDEPENDENCE

December 16 is a significant historical date for Kazakhstan. On this day in 1991, the Supreme Council of Kazakhstan adopted the Law on the independence and state sovereignty of the country. The acquisition of state independence marked the beginning of a number of processes, that continue to develop dynamically even today.

The initial stage on the way to independence was the formation of a new political system. For the first time, the Kazakh people elected their President on the basis of democracy – Nursultan Abishevich Nazarbayev, who currently the First President of the Republic of Kazakhstan and the Leader of the Nation. A bicameral Parliament was established, the Kazakh language acquired the status of the state language, the good names of Kazakh fighters for freedom and independence were restored.

As you know, one of the main attributes that personify the sovereignty of any country are state symbols. Therefore, among the main tasks on the development agenda of the young state was the question of the need to develop such symbols. Thus, in 1992 Kazakhstan got its own coat of arms, flag and anthem. Working on the creation of state symbols, the authors reflected in them the historical continuity of the Kazakh people, elements of the spiritual and cultural heritage of their ancestors.

The coat of arms of Kazakhstan is the guiding star of the state, a symbol of the integrity of the world and the fundamental principle of the country - the family. The flag of Kazakhstan is a blue cloudless sky, a symbol of the unity of all peoples living on the territory of the republic. This is a symbol of the breadth of the soul of the steppe people, ready to open their arms to all friends who respect the proud, freedom-loving spirit of a multinational sovereign state. The anthem of Kazakhstan is a solemn song that reflected the whole life, the whole history of the Kazakh people. It sings about the difficulties that they went through throughout their history, about victories and achievements. This hymn reflects the greatness of the people who proclaimed peace and friendship, faith in a happy future.

The fact that in 1992 Kazakhstan became a member of the Organization for Security and Cooperation in Europe and a member of the United Nations was a vivid confirmation of the recognition of the independence of our country by the international community. This made it possible for the young state to participate in solving international issues of a political, economic, social, cultural and humanitarian nature.

The proclamation of independence and entry into the world community required the adoption of a new basic law of the republic - the Constitution. As a

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result, in January 1993, the Constitution of Kazakhstan was adopted, declaring it a unitary, secular and democratic state. Today, the Constitution is the main document that guarantees the rights and freedom of every citizen of the republic.

Another key event in the history of the formation of independent Kazakhstan was the introduction of its own national currency in November 1993. The Kazakhstani tenge has its own graphic sign (₸), which is a symbol of the ancient Turkic alphabet and denotes the sound "t" in transcription, with which the word "tenge" begins, as well as "Tengri" – a sacred deity among all Turkic peoples, personifying the sky. The symbol expresses the idea of stability of the monetary unit, high potential, dynamics of development and growth of the national economy of Kazakhstan. Today, both the national currency and state symbols have their own birthdays, which are also celebrated annually by Kazakhstanis.

The transfer of the capital from Almaty to Astana in 1997 was another important event in the life of young Kazakhstan, which had a number of economic and political reasons. Every year the authority of the young capital grew, strengthened and in a short time Astana quickly and confidently declared itself on the world political arena. During this time, the appearance and scale of Astana has undergone many changes – the once small town received the status of a megapolis and acquired a new name – Nur-Sultan.

Today Nur-Sultan is a modern, dynamic city, that has given an impetus to the development of not only the economy, but also other spheres of the state's life. Here is the administrative, business and cultural center of the country, where large-scale economic, scientific, technical and social problems are solved, large projects are implemented, tens of thousands of jobs are created.

Strengthening of state independence and the formation of Kazakhstan as an important participant in international processes, as well as the establishment of friendly diplomatic relations between states led to the creation of international projects in Kazakhstan.

SINCE THE DAY OF GAINING INDEPENDENCE, EACH YEAR OF THE HISTORY OF KAZAKHSTAN IS FILLED WITH BRIGHT AND SIGNIFICANT EVEN

One of such significant projects is the Caspian Pipeline Consortium. To create an export oil pipeline from Kazakhstan, many options for its construction were considered, in particular, more than 10 routes for transporting oil for export from Kazakhstan were studied, including through Russia - to the Black Sea, through Iran - to the Persian Gulf, through Baku – Ceyhan, Turkey – to the Mediterranean Sea. In the end, the experts determined the priority – the Tengiz-Novorossiysk route. This was the shortest export route from Kazakhstan. December 6, 1996 became a turning point in the history of the project – the CPC Shareholders Agreement was signed. This year the Consortium is also celebrating its 25th anniversary. The history of its creation is inextricably linked with the development and strengthening of the independence of Kazakhstan's independence, and the CPC has justified itself and has become a key project of the country.

Independence Day is the main national and significant holiday for every Kazakhstani. Since the day of gaining independence, each year of the history of Kazakhstan is filled with bright and significant events. For a relatively short period on a historical scale, through common efforts, the Kazakh people managed to build a democratic, legal and economically independent state.

This year, many events are held under the sign of the 30th anniversary of the independence of our country. We congratulate our colleagues on the upcoming anniversary event, we wish every home and every family health and well-being, prosperity, tranquility and peace!

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AUTHOR
PAVEL KRETOV

CPC – FOR VOLUNTEERS

THIS YEAR, THE CASPIAN PIPELINE CONSORTIUM PRESENTED THE YOUTH CENTER OF MUNICIPALITY OF NOVOROSSIYSK WITH AN IVECO CARGO-PASSENGER CAR. A MODERN TRUCK IS CALLED TO PROVIDE ALL THE CENTER'S NEEDS IN TRANSPORTING EQUIPMENT AND IN SUPPORTING PROJECTS IMPLEMENTED BY VOLUNTEERS – FROM SEARCH EXPEDITIONS TO ORGANIZATION OF CONCERT PROGRAMS

According to the current law on youth policy in the Russian Federation, almost every third resident of Novorossiysk belongs to the younger generation under the age of 35.

Sociologists note: if the pandemic inflicted the greatest physical damage to citizens of the 65+ category, then the younger generation suffered more psychologically - for a long time, the whole way of life changed, the possibilities of movement and personal communication were limited, traditional places of leisure were closed. Experts believe that such a situation may additionally hinder the integration of young people into public life, and this problem is now observed in many countries of the world.

The multifaceted tasks of the implementation of youth policy in Novorossiysk are solved by the employees of the youth affairs department of the administration of the municipality. It is its subordinate institution that is MGI Youth Center, which oversees 41 club associations.

"The Youth Center builds up interaction with young people both through the youth affairs department and works with them directly in three main areas – individual preventive, civil-patriotic and the implementation of youth initiatives", says Marina Golovko, head of the Youth Affairs department of the Novorossiysk administration.

A specially created resource center for volunteerism consolidates active Novorossiysk youth and offers 13 areas in which you can benefit society. For example, in 2020, during a pandemic, assistance was especially needed to deliver food to elderly people who were in self-isolation mode.

"The environmental direction is also an important type of volunteer activity", continues Marina Golovko. "Even in 2020, with its sanitary restrictions, young people took part in 40 environmental campaigns. They cleaned the coastal zones, territories of Tsemesskaya and Pionerskaya groves, lakes – Kiparisovoye in the Sukko valley and Abrau in the village of Abrau-Dyurso".

This year, volunteers of the Center, together with local residents and employees of the CPC Marine Terminal, completed landscaping, cleaning and garbage collection from the beach in Yuzhnaya Ozereevka. The use of the IVECO cargo and passenger car presented to the Center by the Caspian Pipeline Consortium became a serious help for the participants of this environmental campaign "Green Spring".

VOLUNTEER RESOURCE CENTER CONSOLIDATES ACTIVE NOVOROSSIYSK YOUTH

Caring for the nature of the native land is inextricably linked with patriotism. By the 75th anniversary of the Victory in the Great Patriotic War, 75 seedlings were planted in the village of Myshako as part of the All-Russian campaign "Garden of Memory".

To perpetuate the memory of all those who died in the battles for Novorossiysk, the youth in the city organized a Center for Search Operations (CSO). Search engines travel to places of past battles to find and bury the remains of soldiers. All the necessary equipment - diesel generator, tents, entrenching tools, etc. - are now transported on a new truck. Last year, the forces of the CSO discovered 22 soldiers, one of whom was identified. By the way, volunteers are also engaged in archival work to establish the names of the fighters and find their relatives.

The members of the Novorossiysk Extreme sports team are also grateful for the IVECO truck. For example, in the past, they had to rent two buses at once to participate in rafting competitions. Participants were traveling in one, things and an inflatable raft in the other. Now all athletes are comfortably placed in the passenger compartment of the car, and everything they need to take with them is in the cargo compartment.

Every year before the New Year, the Novorossiysk Youth Center organizes the "Youth Transit" action – it comes to all rural districts of the city to sum up, tell about its activities and congratulate everyone on the upcoming holidays in the format of a youth disco. All musical equipment for these traditional events will now be delivered by truck with the inscription "CPC for Volunteers" on board.

AUTHOR:
PAVEL KRETOV

CENTER OF CONTEMPORARY KNOWLEDGE

THE INFORMATION RESOURCE CENTER "SHKOLNIK-2" IS KNOWN NOT ONLY IN NOVOROSSIYSK AND KRASNODAR KRAI, BUT ALSO THROUGHOUT COUNTRY. IT BECOMES AN INNOVATIVE PLATFORM FOR FEDERAL AND INTERNATIONAL PROGRAMS

With the additional education received here, schoolchildren enter the leading universities of the country, moreover, the most demanded specialties. Former students of the center can be found at the St. Petersburg State University and Peter the Great Polytechnic University, the Russian Technological University (MIREA), the Kuban State University and others.

Irina Romanova, Director of the Center, told "Panorama CPC" correspondents about history of the facility. She has been working here almost since the foundation of the IRC in 1994 and has been heading the organization since 2003. In the warehouse of the center, Irina showed us a perfectly preserved Macintosh computer and a camera, which "Shkolnik-2" acquired in the second half of the 90s with grants from the "Eureka" innovative educational network. At that time, the educational institution was tasked with teaching new information technologies not only to children, but also developing methods for teachers. The center successfully performs this work even today.

For many years "Shkolnik-2" was located on the territory of school number 10, and recently moved to the business center, where it occupied the third and fourth floors. The area of additional education institutions has almost quadrupled. Downstairs children from junior classes study, above – senior pupils.

"Today, about a thousand children study at the center", says Irina Romanova. "About 60 groups have been formed for them in three areas: technical, socio-humanitarian and artistic. 43 educational programs have been developed for our students".

For housewarming, CPC presented the center with interactive and multimedia equipment with licensed software worth about 6 million rubles. Modern technology helps to develop children's knowledge on the basis of the center of the innovation platform "Academy of Programming", which allows even elementary schoolchildren to easily acquire skills in the field of digital technologies.

"Our previous computers were already outdated and low-powered", explains Lyudmila Dobrokhotova, a teacher at the "Academy of Programming". "With such a technology, children could only be taught with vintage Pascal and QBasic. Modern programming languages require a serious core, a processor of at least four gigabytes – otherwise you will not run compilers".

Having quickly mastered the new powerful computers presented by CPC, the students of the center have already managed to collect prizes at school Olympiads. Graduates prepare software applications for the Android operating system for project protection – new, relevant, in-demand.

No less interest and enthusiasm among the pupils of the center is the study of disciplines related to design, and construction. To support this sphere, CPC purchased a laser machine, a three-dimensional scanner and a printer for the IRC. In the computer modeling class, the correspondents of "Panorama CPC" talked with two future designers - Alisa Kuzmina and Marika Gavasheli.

THE STUDENTS OF THE CENTER ARE ENTHUSIASTICALLY ENGAGED IN PROGRAMMING, DESIGN AND CONSTRUCTION

"I want to get a specialized higher education and connect my future life with design", Alisa shared her plans.

It was in the center that schoolgirls mastered specialized programs and learned how to make two-dimensional and three-dimensional souvenirs. By the way, the design of the new premises of the center was also partially developed by its young pupils. For example, they designed a coworking area at the IRC, which CPC equipped. Conferences and distance seminars with university professors are regularly held here.

"We have network partners such as the All-Russian Correspondence Financial and Economic Institute. Highly qualified teachers give children the knowledge they need to enter financial universities", comments Irina Romanova.

Notable success is also achieved by students studying robotics. Their cyber creations confidently walk up the stairs, lift loads and even compete with each other in performing various tasks.

Young animators are also grateful to the Consortium. CPC presented the Center with a special device, with which children make plasticine characters, work with movement, light and sound. Recently, this creative studio released an educational cartoon about the representatives of flora and fauna listed in the Red Book of the Krasnodar Krai.

AUTHOR
PAVEL KRETOV

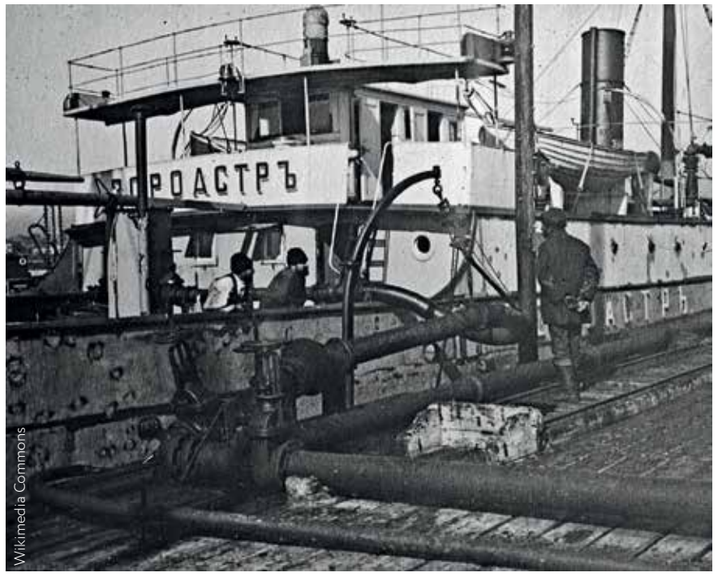
RUSSIAN APPROACH

IN AUGUST 2021, CPC SHIPPED THE 7,000TH SUEZMAX ARTEMIS VOYAGER TANKER WITH A DEADWEIGHT OF 157,400 TONS AT THE MARINE TERMINAL. ANOTHER ANNIVERSARY WILL BE CELEBRATED SOON: 300 YEARS OF THE DECREE OF PETER THE GREAT, WHICH DEFINED THE RULES FOR THE TRANSPORTATION OF OIL ON SAILING SHIPS AND BARGES. FOLLOWING THESE RULES, THE ASTRAKHAN MERCHANTS, ARTEMYEV BROTHERS INVENTED THE FIRST TANKER IN 1873

UNDER THE LAUGHTER OF COMPETITORS

For the first one and a half hundred years, oil was transported on ships in barrels, the production costs of which accounted for a considerable part of the cost of cargo delivery. To this must be added a significant loss of time during transshipment in the port and frequent spills in case of container breakage. Therefore, it is not surprising that with the growth in the production of black gold in the second half of the XIX century, inquisitive minds increasingly thought about how to simplify the process of delivering raw materials to consumers. And it is not enough to offer an idea, it had to be tested in practice, to prove economic efficiency in real transportation. And who will provide ships for risky experiments? This means that only the shipowners themselves could initiate the innovations!

For the first time in the world, the transportation of oil in bulk by sea was carried out by Russian shipowners Nikolai and Dmitry Artemiev. In 1873, under the friendly laughter of competitors, the Astrakhan brothers, who had their own shipyard, installed a steel chest – a "tank" on the small schooner "Alexander". The ridicule subsided at the end of navigation, when it turned out that the Artemyevs' vessel had made eight voyages, and any other cargo floating craft with barrels on board - no more than six. The sailing tanker took on board about 80 tons of oil, but this was already a huge progress. The main time saving was provided by the way of loading and unloading the tank in ports - with the help of a hand pump. Soon, the brothers converted seven more vessels for loading – the schooners "Russia" (216 tons), "Snake" (120 tons), "Elizabeth" (513 tons), "North" (224 tons), «Two brothers» (240 tons) , "Volga" (320 tons) and "Union" (230 tons). In 1874, the Artemyevs sent oil in bulk from Baku to Nizhny Novgorod. Due to the fact that on the way back ordinary ships carried empty barrels dirty with oil, and the brothers' schooners carried various dry cargoes, which were placed on the floor of a metal chest covered with reeds, the profitability of the fleet of Astrakhan entrepreneurs turned out to be three times higher. The competitors were not laughing at all.



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FROM SAILING BOATS TO SHIPS ...

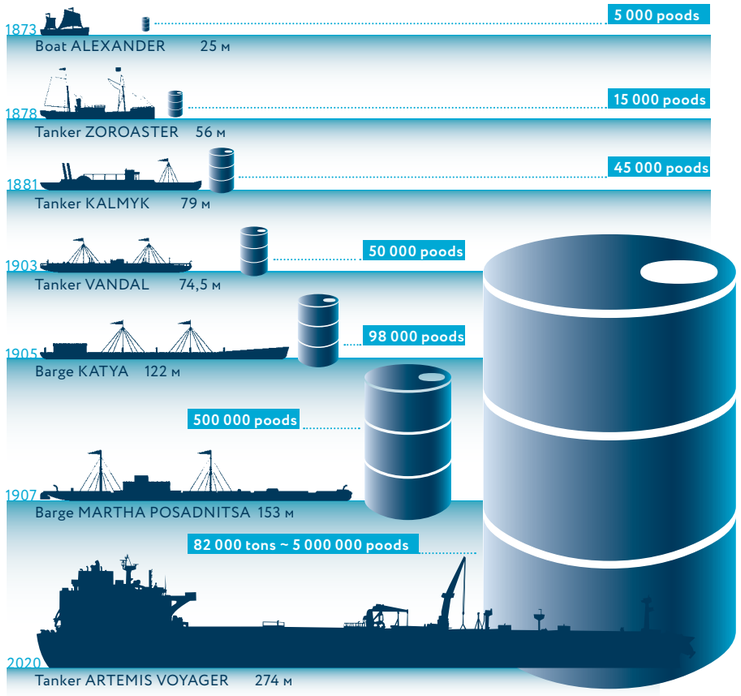
The Artemyev brothers did not stop there and continued to improve the methods of transportation of oil cargo in bulk. In 1878, they used a steam pump that pumped 4,000 poods of oil per hour, then put into operation pumps with a capacity of 20,000 poods per hour. With the use of such equipment, the turnover of their vessels per season increased to 14 voyages. In 1882, at the All-Russian Industrial Exhibition in Moscow, the Artemyev brothers were awarded an honorary prize "For the initiative to introduce bulk oil transportation in the Caspian Sea".

THE NEW METHOD OF OIL TRANSPORTATION WAS CALLED "RUSSIAN" IN THE PROFESSIONAL COMMUNITY

The new method of oil transportation quickly became known in the world professional community and was called "Russian". The idea in the late 70s of the XIX century was picked up by the St. Petersburg "Nobel Brothers Oil Production Partnership". They ordered the construction of the world's first metal steamship "Zoroaster", specially equipped for oil transportation, in Sweden. The vessel took on board 240 tons of black gold, which was poured into eight separate cylindrical tanks. The Zoroaster power plant used fuel oil as fuel, which was 10 times more economical than coal. In 1878, the steamer, which had gas-discharge pipes for safety, began to make regular voyages under the Russian flag. After "Zoroaster" two more ships were launched – "Buddha" and "Nordenskjold". They were equipped with two stationary tanks allocated in the hull and three detachable tanks. Free space was left between the latter and the body, where pipes were placed for pumping and pumping out cargo.

... AND TO SUPERTANKERS

The first export vessel to export Russian oil was the tanker "Svet", built in 1885 in Sweden, with a carrying capacity of 1.7 thousand tons. Instead of plug-in tanks, the ship's hold was simply divided into autonomous steel tank compartments and equipped with ventilation. The following year, the "Gluckauf" tanker with a deadweight of 3,000 tons was built in England. From the 90s of the XIX century to the beginning of the 40s, the displacement of tankers increased from 6 thousand tons to 30 thousand tons, and the total tonnage of oil tankers of the countries of the planet reached 15% of the capacity of the world merchant fleet. In 1956, the first 100,000-ton tanker was built, and from that moment on, tankers were no longer inferior in displacement to ships or ships of other types and classes. Ten years later, the "Idemitsu Maru" tanker with a displacement of almost 240 thousand tons was built in Japan. In terms of its dimensions, it turned out to be larger than the American aircraft carrier "Enterprise"! In 1962, the first 300,000-ton tanker was launched. In 1971, the construction of the first four 400,000-ton tanker was completed. The boundaries of 500 and 600 thousand tons were taken in 1973 and 1976, respectively.



THE FIRST EXPORT VESSEL TO EXPORT RUSSIAN OIL WAS THE TANKER "SVET", BUILT IN 1885 IN SWEDEN, WITH A CARRYING CAPACITY OF 1.7 THOUSAND TONS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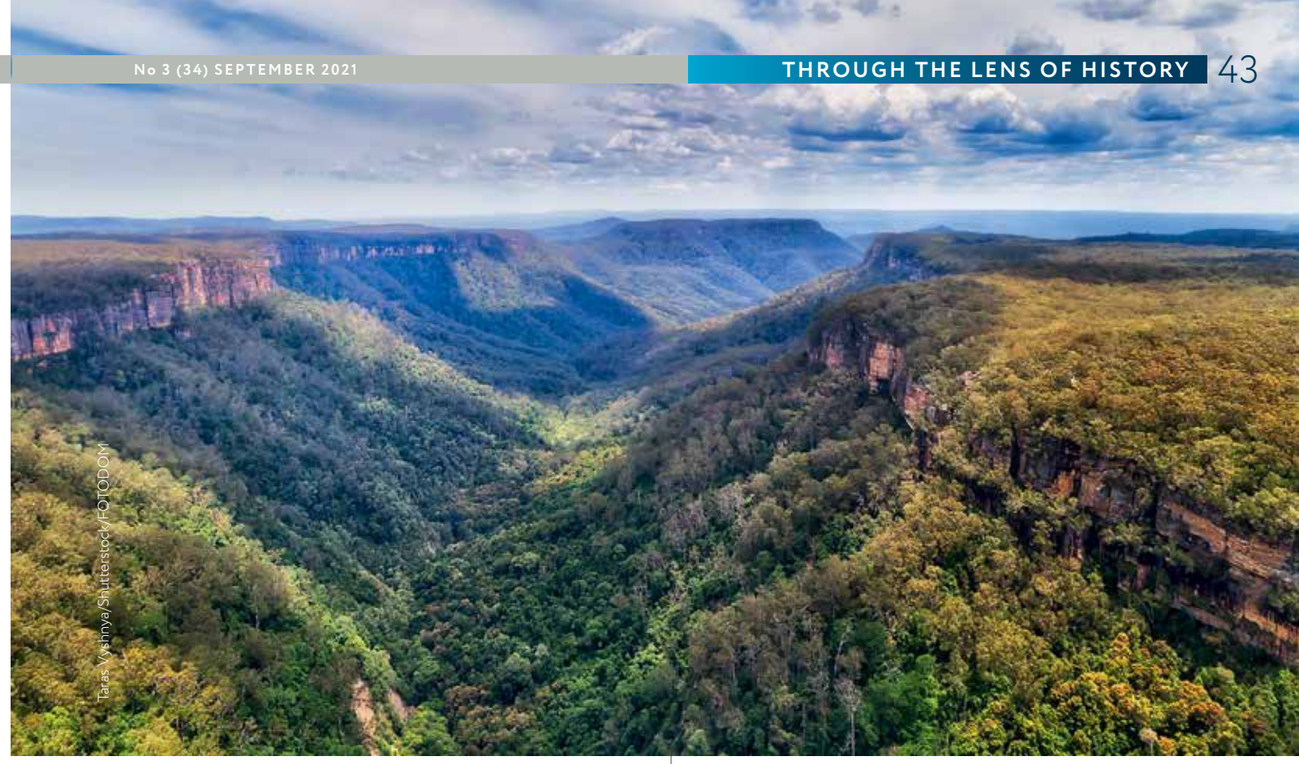
But back to the Artemiev brothers. Natives of the Astrakhan bourgeois environment not only gained world fame as the creators of the first tanker, but also carried out active social and charitable activities. They published books, financed nautical schools, laid telephone lines. Nikolai Ivanovich Artemiev was an honorary member of the Astrakhan Charitable Society and a member of the Petrovsky Society of Explorers of the Astrakhan Region.

In Astrakhan they honor the memory of their great countrymen. In honor of the brothers, Artemiev Street is named, and at Nikolskaya, 1, their apartment house has been preserved. Protected by the state as a cultural monument, the house of N.I. Artemiev is located on the Volga embankment (M. Gorky St., 25). The regional museum of local lore displays a unique brochure, published in 1883 in Moscow, entitled "A few words about the transportation of oil by the oil loading system in sea and river vessels, invented for the first time in 1873 by the brothers Nikolai and Dmitry Artemiev in Astrakhan".


Taras Vyshnya/Shutterstock/FOTODOM

AUTHOR
PAVEL KRETOV

IN THE SOUTH HEMISPHERE

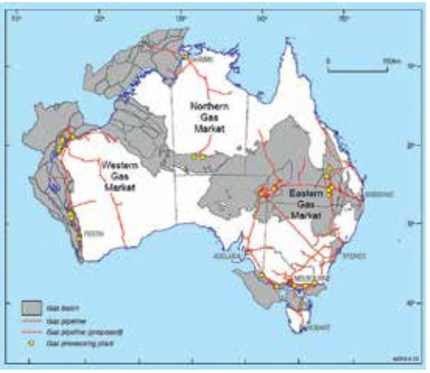
TRANSPORTATION COMMUNICATIONS PLAY A SERIOUS ROLE IN AUSTRALIA – A COUNTRY-CONTINENT WITH LOW POPULATION. OF PARTICULAR IMPORTANCE ARE LONG-DISTANCE WATER PIPELINES, BUT OTHER TYPES OF PIPELINE TRANSPORT ARE ALSO WELL DEVELOPED

TO THE DELIGHT OF PALEONTOLOGISTS

Exactly 60 years ago, active development of hydrocarbon deposits began on the smallest continent of the Earth. Local industrialists were encouraged to do this by almost two-fold population growth in comparison with the pre-war level and an increase in the well-being of the residents of the Australian Union, who were massively transplanted to personal vehicles.

In June 1963, having received license No. 1, the builders began construction of the Mooney-Brisbane oil pipeline. The 305-kilometer pipeline was supposed to connect the oil fields in Queensland with the largest port on the east coast of Australia.

The pipeline route was thoroughly examined by prospectors, soil scientists and even paleontologists before the builders. They made many remarkable discoveries in layered soil. In particular,



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fossils were found, one of which turned out to be the tail of a giant kangaroo, the other – the remains of a huge wombat.

The construction of the first oil pipeline in the history of the "green continent" started without any solemn ceremonies, but all the participants of the project were well aware of the significance of the moment. Newspapers wrote that thousands of onlookers came to watch the work of the welders and the advance of the columns with heavy equipment unusual for the Australians.

COWS AND WILD DINGO DOGS

The construction was started by specialists who came mainly from North America. But at the same time, local personnel were trained: at first they were entrusted with work that did not require special qualifications, but quite quickly, Australia had its own pipeline welders and machinists of various mechanisms. Expats highly appreciated the ability of Australians to learn. In addition to the desire for new skills and knowledge, the students had a significant material incentive: the weekly salary of local workers reached up to 50 British pounds.

AUSTRALIA'S PIPELINES HAVE A TOTAL LENGTH OF MORE THAN

33

THOUSAND KM

Andrea Slatter/Shutterstock/FOTODOM

The most serious obstacles for the builders were the Condamine River and the slopes of the Great Dividing Range, where the pipeline route reached its highest elevations above sea level. The mountains, as well as the important regional highway Toowoomba-Warwick, were crossed by the contractors in August 1963.

Many difficulties were brought to the builders by the dense groves of acacia trees and tropical thickets teeming with snakes, the bite of which can kill a person. "Unkindly" the workers were greeted by wild dingo dogs, who jealously guarded their territories. But the fears about local farmers, on whose lands the route passed, fortunately, did not come true. The descendants of convicts, known for their stormy, sometimes with shooting, gatherings in bars, met the builders quite hospitably. The oil workers reciprocated them: 70 km west of the final point of the pipeline, taking into account the wishes of local residents, they raised the pipeline 10 m above the ground so as not to interfere with the shepherds to drive herds of cows.

The main line was welded on October 4, 1964 – 59 days ahead of schedule. The fully constructed, X-rayed and hydraulically tested pipeline was ready for operation in April 1964 and the first oil flowed through it in May.

IN THE LAND OF HUGE EUCALYPTUS

While Australia lagged far behind other industrialized nations in terms of the time of construction of pipeline transport systems, in some issues it managed to get far ahead in the 1960s. For the first time in world practice, the construction of an 85-kilometer pipeline intended for the transportation of iron ore started on the island of Tasmania in 1966. With this technology, before pumping, the ore is crushed to small particles and mixed with water to a state of suspension.

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It should be added that the Savage River field was discovered back in 1877, but the difficult accessibility of the region prevented its industrial development at that time. Only at the end of the 50s of the XX century this issue was returned again.

When designing the pipeline, the engineers did not immediately choose between underground and aboveground laying methods. Calculations have shown that the costs for any of them will be almost equal, because when constructing a pipeline on the surface, it will need to be additionally protected from accidental shots from hunters, falling trees, etc. As a result, they stopped at the underground method, leaving only the crossings over the water barriers above the surface.

In January 1966, after aerial reconnaissance and field surveys, the builders began to clear the route. They moved from north to south and the further they went from the starting point, the more difficult conditions they faced. The work was hampered by the almost complete absence of roads and dense vegetation, especially huge eucalyptus trees over 60 m high.

Construction of site facilities at the starting point of the route – Savage River – started in September. In mid-October, when the first pipes arrived, from the end point – the port of Latta – the development of the trench and the welding began. The builders completed the installation of the linear part of the pipeline in 15 months. Hydraulic tests were carried out in separate sections with a length of 8 to 15 km, while the pressure was injected at 125% of the maximum working pressure. Due to the high corrosiveness of the soil, the pipeline was equipped with powerful cathodic protection systems.

BRISMANIA

The first shipments of iron ore were piped to the port of Latta in 1968. There, at a specially equipped enterprise, briquettes were formed from it and loaded onto sea transport, which followed, for the most part, to metallurgical enterprises in Japan.

THROUGH THE GREAT DIVIDING RANGE

But back to Queensland again. In 1968, the construction of the first gas pipeline in the history of Australia began here. The steel artery was intended to transport gas from the Roma field to the port of Brisbane. The project included the construction of 435 km of main pipelines, 126 km of supply pipelines, and five compressor stations.

Every day the builders welded 300 pipeline joints. Since the project involved a little-known top-down welding method for Australians, all local welders had a month-long training in special courses.

As in the case of the oil pipeline, the route of the gas pipeline passed through the Black Earth regions, in the area of the city of Toowoomba it overcame the Great Dividing Range and then went through the densely built-up areas of Brisbane. The first gas was pumped through this pipeline on March 20, 1969.

Today pipelines on the southern continent have a total length of more than 33,000 km. Australia confidently leads the second ten most affluent countries in the world with this type of transport.

AUTHOR:
SVETLANA LARINA,
DEPUTY MANAGER, TREASURY,
CPC-R

LIFE UNDER SAIL

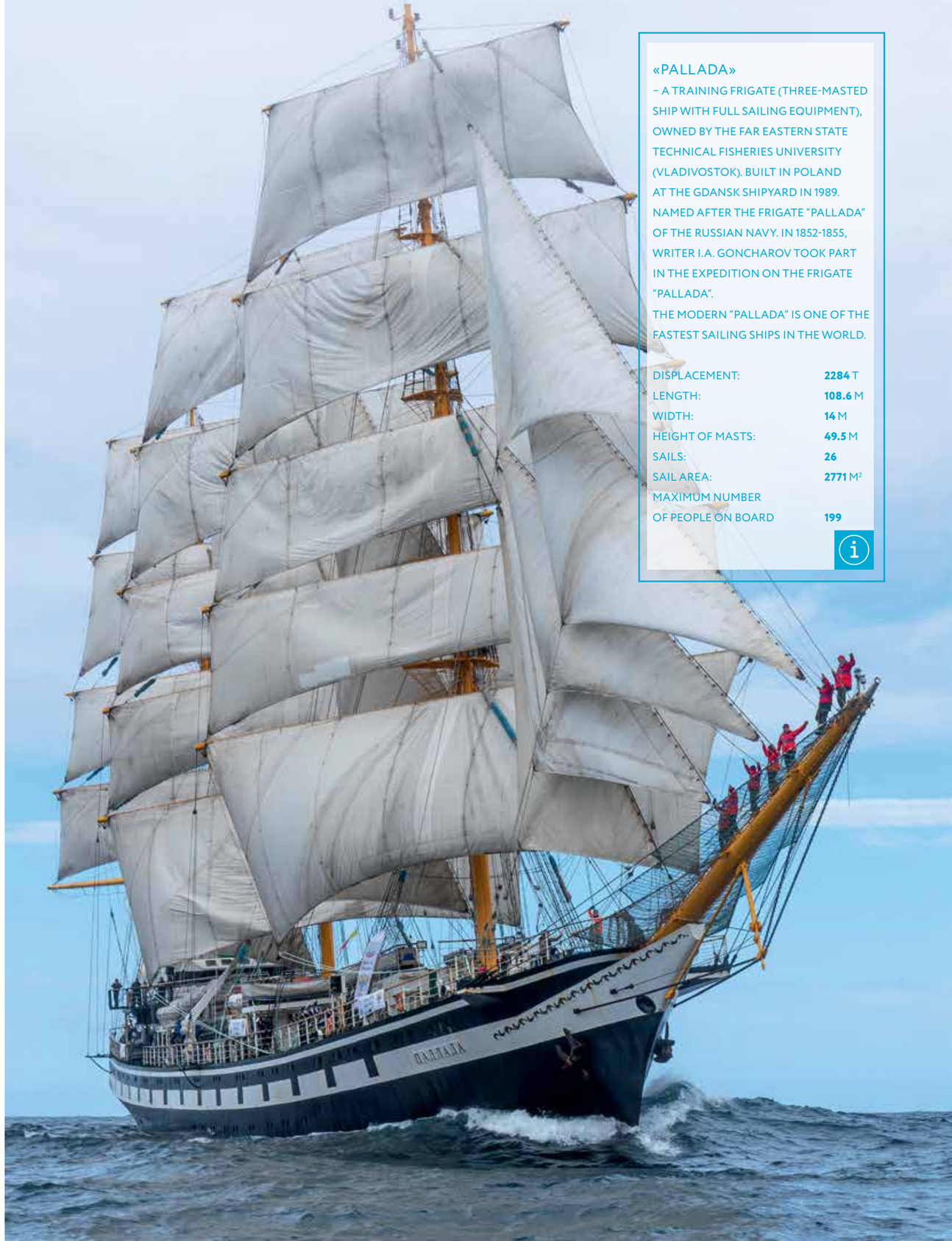
“NOWHERE IS A PERSON SO PATHETIC, IMPUDENT AND AT TIMES SO SUDDENLY HAPPY AS AT SEA”, IS AN OBSERVATION THAT THE RUSSIAN WRITER IVAN GONCHAROV MADE DURING AN EXPEDITION ON THE MILITARY SAILING SHIP “PALLADA” IN 1855. THIS IS EXACTLY THE FEELING I MANAGED TO EXPERIENCE LAST SUMMER, BEING ON BOARD OF THE NEW “PALLADA”

On June 2021, the three-masted training sailing ship “Pallada” moored from the dock of the port of Vladivostok to the horns of the ship’s typhon. There were 14 trainees on board, and I was lucky enough to be one of them. During the transition, dedicated to the 280th anniversary of Vitus Bering’s Kamchatka expedition, it was planned to sail high to the north, to the ice fields of the Pacific Ocean. The route of the first stage of the expedition, in which I took part, passed through the waters of the Sea of Japan to Sakhalin Island, then followed the Sea of Okhotsk along the Kuril ridge with access to the Pacific Ocean to the shores of Kamchatka.

I have been fond of sailing since my student days, I had practice on yachts of different classes: from “Lazer” (a racing single-seat sailing dinghy) to the “Kruzenshtern” barge (a four-masted sailboat capable of taking up to 225 people on board). Expedition “Beringia-2021” was especially interesting to me because of the geography of the route and the opportunity to learn from the experience of people who participated in many training hikes, and in 2020 made around the world trip in honor of the discovery of Antarctica. “1638 nautical miles” - such a record, confirmed by the seal of the captain of the “Pallada” Nikolai Kuzmich Zorchenko, has now been added to my logbook of a yachtsman.

Where can you meet so many people “on the same wave” if not on sea trips? What happens on board under sail away from the coast is always a high concentration of emotions and events. The space is huge, although freedom of movement is limited by the dimensions of the deck. Time is measured, but there is unexpectedly a lot of it, since network surfing is unrealistic: there is no connection.

A watery desert, volcanic islands rising from the fog, cold currents that reduce the summer heat to plus ten. Incredible sunsets, whales and killer



«PALLADA»

– A TRAINING FRIGATE (THREE-MASTED SHIP WITH FULL SAILING EQUIPMENT), OWNED BY THE FAR EASTERN STATE TECHNICAL FISHERIES UNIVERSITY (VLADIVOSTOK). BUILT IN POLAND AT THE GDANSK SHIPYARD IN 1989. NAMED AFTER THE FRIGATE “PALLADA” OF THE RUSSIAN NAVY. IN 1852-1855, WRITER I.A. GONCHAROV TOOK PART IN THE EXPEDITION ON THE FRIGATE “PALLADA”.
THE MODERN “PALLADA” IS ONE OF THE FASTEST SAILING SHIPS IN THE WORLD.

DISPLACEMENT:	**2284** T
LENGTH:	**108.6** M
WIDTH:	**14** M
HEIGHT OF MASTS:	**49.5** M
SAILS:	**26**
SAIL AREA:	**2771** M^2
MAXIMUM NUMBER OF PEOPLE ON BOARD	**199**

cadet canteen, far from the criteria of a healthy lifestyle, were confused. The regime was tough and verified: getting up at half past six, exercising with a run, breakfast at half past seven. At eight, line up to raise the national flag, after – planned work and comprehension of the wisdom of marine life.

The main thing on board is live communication and the atmosphere created by everyone: from an experienced captain to a trainee who got on a sailboat for the first time. All the "hardships" fade against the background of the sensations that you get from participating in the sailing rush, when under the guidance of the boatswains there is a brace (unfolding of yarns), setting or rolling of sails. Another adventure is to climb the masthead (the platform is approximately in the middle, that is, 25 m from the deck) to listen to the sound of the wind and see the banks of the Kuriles drowning in haze.

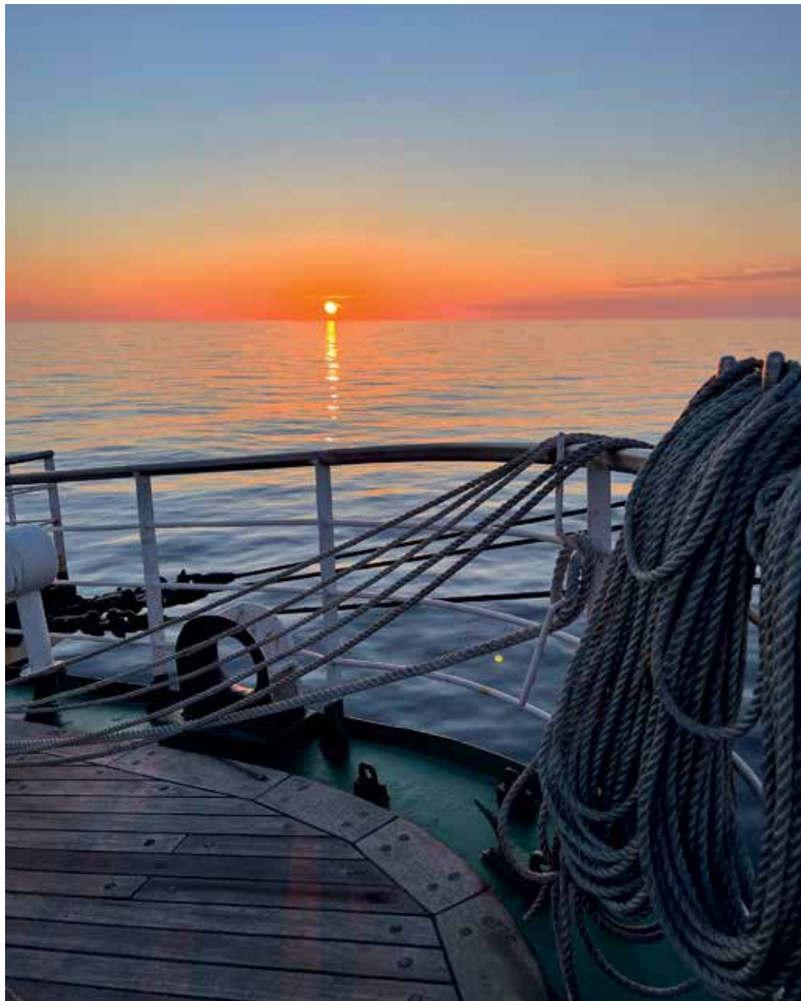
Participation in plotting the course under the guidance of the execs, determining the location by the stars and bearing of objects in the daytime. Lessons at the helm, when it is necessary to maintain a certain course and lay the desired angle of rotation.

Baturz Peter/Shutterstock/FOTODOM

Lectures in the classroom about sailing equipment, spars and rigging, knotting in a relaxed atmosphere of a sailing workshop to the tales of experienced sailors, creative gatherings with a guitar on the stern, traditional tea drinking with the captain, sincere conversations in the wardroom, fishing in the roadstead – every day on board was saturated.

All trainees hoped to test their strength in storm and wind, but the sea was calm, the maximum roll on the wave did not exceed 20 degrees. But despite the fact that we did not have to face storms and bad weather, quite a lot of time was devoted to safety issues on the ship. Experienced sailors gave us lectures on survival on the water, conducted training alarms on leaving the ship, firefighting and rescue training, both for people and the ship itself.

In the conditions of the changed rules of movement around the planet, it is difficult to imagine, in my opinion, a better choice than isolation at sea under sail. Such a vacation leaves a wonderful aftertaste and new entries in the phone book. Now we, trainees, will meet again and again ashore: the trip on the "Pallada" has become a strong foundation of our friendship.



THE MAIN THING ON BOARD IS LIVE COMMUNICATION AND ATMOSPHERE

whales in photographic proximity. Seagulls soaring above the masts in the wind from under the sails, star-twinkling plankton and other gifts for the eyes of travelers. Anyone who is used to the out-of-the-box view of the firewall and has long erased the boundary between work and personal time, checking corporate email every minute, is strongly advised to reboot like this.

The conditions on the ship are quite austere, but we all boarded, deliberately leaving our regalia and merits on the pier. Neither accommodation in 12-bed cabins, nor four meals a day in the

MaraZe/Shutterstock/FOTODOM

ABTOP

AUTHOR: ELMIRA MAVLYUTOVA, PAYROLL ACCOUNTANT, CPC-R

SAY "CHEESE"

CHEESE IS THE OLDEST HUMAN-MADE FOOD PRODUCT. INVENTED 8000 YEARS AGO, WHEN PEOPLE LEARNED TO DOMESTICATE SHEEP, CHEESE IS TWICE AS OLD AS BREAD, AND IN TERMS OF SATURATION WITH USEFUL SUBSTANCES, IT HAS NO EQUAL AT ALL. IT IS NOT SO DIFFICULT TO MASTER THE CRAFT PRODUCTION OF CHEESE, AND THE RESULT WILL SURELY PLEASE BOTH HOME AND GUESTS

Factory-made limburger, cheddar, parmesan can be quite tolerable, but still, as Boris Grebenshchikov said, "there is something wrong with this". When stored in the refrigerator, such cheeses are more and more similar to paraffin in taste and appearance.

The secret is simple: the industrial production of cheese all over the world is legally allowed only from pasteurized milk. As a result, factory cheese acquires guaranteed harmlessness, but at the same time loses many of its original qualities: taste, aroma, texture. In this situation, craft cheese production is gaining more and more popularity among gourmets.

Homemade cheese, the production process of which I have mastered for a long time, does not take much time to prepare. It will be about the varieties "Homemade", "Ricotta", "Dutch", "Montazio", the recipes of which are given below. Of course, each of these varieties has its own ripening period – from several hours to a month or more.

More complex recipes, for example, "Camembert" require certain temperature regimes, which is difficult to achieve in ordinary home conditions. And for the preparation of the above four, a large enough saucepan, thermometer, sieve, cheesecloth and colander.

THE MAIN INGREDIENTS FOR MAKING CHEESE ARE MILK, ENZYME, SOURDOUGH

RECIPE 1:

HOMEMADE CHEESE:

1. Dissolve the contents of the package "Natural rennet" in 20-30g warm water.

2. Add the resulting solution to milk (from 5 to 10 liters) heated to a temperature of 35-38°C, stir

3. Wait for a dense clot to form (30-40 min)

4. Cut into cubes with a side of 1.5-2 cm

5. Gradually heat to a temperature of 40 ° C with gentle stirring

6. Continue stirring while keeping the temperature (40°C) for 20 minutes.

7. Separate the whey and transfer the curd to the cheese pan.

8. Leave to self-press for 30 minutes.

9. Turn over and leave to self-press for another 30 minutes

The cheese can be eaten immediately after making it. Add salt to taste until self-pressing.

RECIPE 2: DUTCH CHEESE

Ingredients:
5 liters of milk (cow or goat)
5 liters of milk (cow or goat)
Mesophilic starter for MSO semi-hard cheeses or MSE soft cheeses
Natural Rennet or Rennet microbial enzyme
10% calcium chloride solution
20% brine. Preparation: Bring 1 liter of water to a boil, dissolve 0.5 kg of rock salt. Cool to room temperature and strain or drain gently so that salt sediment (if any) remains at the bottom of the pan. Add 5 ml of 6% vinegar and 10 ml of 10% calcium chloride to the brine. The brine can be used several times.

1. Heat milk to 32 ° C. Add sourdough to the milk, mix well and leave to ripen for 30-40 minutes.

2. Dissolve a 10% solution of calcium chloride in 10 ml of water and pour into milk. Mix well.

3. Dissolve the rennet in 10 ml of water at a temperature of 30-35ºC, leave for 20 minutes.

4. Pour the rennet solution into the milk and mix well. Leave to form a clot for 30-40 minutes, maintaining the temperature at 30-32ºC.

5. Check the formation of a "clean kink". If the clot is already dense, start cutting, if not very dense, leave for another 10 minutes. Cut to the size of a pea using a lyre or a knife.

6. Stir the curd for 20 minutes, keeping the temperature at 32-33ºC.

7. Drain off 30% of the whey. To lower the acidity of the future cheese, pour in the same amount of water at a temperature of 42ºC.

8. Now knead and simultaneously heat the grain for 25 minutes to a temperature of 38 ° C. Leave for 5 minutes for the curd to settle to the bottom.

9. Line the pan with gauze or insert a drainage bag. Place the dish in a deep saucepan.

10. Scoop up the grain with the whey, pour it into a mold, transfer all the cheese grain, touching it tightly with your hands. You must try to prevent air from entering the cheese head.

11. Close the ends of the fabric, cover and leave to self-press for 30 minutes. Turn the cheese once during this time (after 15 minutes) so that it self-presses in the opposite direction. All this must be done under a layer of whey.

12. Remove the cheese from the fabric, rewrap, straighten the folds, put the mold on the other side. Place the cheese pan under a press and press for 30 minutes).

13. After pressing, remove the cheese from the cloth and weigh. This is necessary to determine the salting time.

14. Salting in 20% brine for the required time – calculated by weight. If 0.5 kg - 3 hours of salting in 20% brine. The cheese floats in the brine, so turn the cheese once (after half the time) for even salting.

15. Remove the cheese from the brine and dry it in the cheese aging chamber at a temperature of 10-13ºC for 5-6 days. You need to get a dry crust. At home, you can dry cheese in the refrigerator in the warmest compartment.

16. Now, to prevent drying out, it is necessary to cover the cheese with latex film or seal it in shrink bags.

17. The cheese ripens for 60 days at a temperature of 10-13ºC. The cheese can be stored after maturation for 4-6 months at a temperature of 6-8 ºC.

The main ingredients for making cheese are milk, enzyme, sourdough. All this is available for sale. The main work (with milk) usually happens on weekends, and on the other days you spend no more than 10 minutes on "fine-tuning". We buy unpasteurized milk in one and a half liter bottles.

A beginner cheesemaker needs to be prepared for the fact that the "yield" of the product will eventually be about 10% of the volume of milk. That is, 100 g of cheese from one liter. The cost of the process also cannot be called cheap: a kilogram of cheese today will cost a thousand rubles, no less. Of course, factory cheese is at least three times cheaper, but it is much inferior to homemade cheese in quality. In addition, I like the process itself, because the preparation of each type of cheese is a separate symphony.

RECIPE 3: MONTAZIO CHEESE

Cheese "Montazio" is an Italian semi- hard cheese made from cow's milk. According to the ripening period, "Montazio" cheese is of four types: fresh (60 days), semi-ripe (over 4 months), mature (over 10 months), old (over 18 months)

Ingredients:
5 l milk
sourdough for Italian cheeses
Natural Rennet or Rennet microbial enzyme
20% brine

1. Pasteurization of milk at a temperature of 72ºC for 15-20 seconds. Cool milk to a temperature of 34-35ºC.

2. Add the MT Italian cheese starter to the milk. Mix well. The culture activation time is 30-45 minutes, keep the temperature at 34-35ºC.

3. Dilute the enzyme in 10 ml of boiled water at room temperature. Stir in milk, add rennet and mix well. After 20 minutes, a dense clot with a "clean kink" should form. Cut it with a lyre to size – about the size of a grain of wheat.

4. Knead the mass and gradually heat up to a temperature of 44-45ºC. Do not heat up too quickly – the heating and kneading process should take 25 minutes. Leave for 10 minutes. The grain should settle to the bottom.

5. Drain the whey into a separate container. Lay out the form with gauze or insert a drainage bag, transfer the curd.

6. Place under a press and press for 10-12 hours. For the first 2 hours, turn the molds every 30 minutes. Then, every 2 hours.

7. Remove the cheese from the mold and put it in a 20% brine, cooled to 10-13ºC, at the rate of 3 hours for every 0.5 kg of finished cheese. In the middle of this time, turn the cheese once.

8. Remove from the brine, put on a drainage mat and leave the cheese at a temperature of 10-15 ° C for 7 days to ripen, until the crust is dry. The cheese must be turned every day so that maturation and drying are even. After a week, start rubbing the cheese twice a week with brine.

9. After two weeks of ripening, the cheese should be grated with honey or olive oil. Repeat in a week.

10. When the cheese has a thick crust, you can vacuum seal it to protect it from drying out.

11. The cheese will ripen for at least another month and a half at a temperature of 10-13ºC, and a maximum of a year or more.

AUTHOR
CPC PRESS SERVICE

PORTRAIT IN THE INTERIOR

ANASTASIA TSYDENZHAPOVA, SENIOR ATTORNEY OF THE CORPORATE LAW GROUP OF CPC-R, IS A TALENTED ARTIST WITH HER INTERESTING VIEW ON THE WORLD. "PRAVDA OF BURYATIA" HAS ALREADY WRITTEN ABOUT HER PAINTING, AND WE WILL TRY. THE INTERVIEW FORMAT IS MOST ACCURATELY CAPABLE OF CONVEYING ALL THE SHADES OF A CREATIVE PERSONALITY

Anastasia, how long have you been in art, what prompted you to do this?

As a child, I loved to draw, read books about art, made wall newspapers at school. But the parents did not pay much attention to this. For the first time I took a brush in my hand relatively recently, in August 2019, on the advice of my mother. When she saw how I was helping my nephew to do his homework on fine arts, she said that I needed to try myself in this direction. I chose an art studio next to my house, went to a trial lesson and have been painting since then.

What technique do you prefer?

While I paint in oil, I like its plasticity.

Do you plan to study painting in the future? Are there any idols and mentors, were there any artists in your dynasty?

There were no artists or creative people in the family. Basically, we have teachers, doctors. I have no mentors yet, but I plan to find a teacher to master the basics of academic drawing and painting. Without a base, at least a minimal one, it is difficult to create something reliable, as in any other occupation.

How often do you pick up a brush? What emotions are needed for this?

At first, I drew almost every day, feeling that it was mine, and discovering some abilities. Then there were pauses. I made the last painting for my friend a month ago. Now there is another pause. Unfortunately, I do not have enough systematic approach to painting.

What is inspiration, how important is it in art?

Inspiration is important for any activity, whether it is creativity or craft. You can't create beauty without it. But inspiration is not a muse that suddenly descends from heaven. It, like luck, comes to people who are ready for it, "burning" with their work, working hard.

Your assessment of contemporary art. What is developing right in it and what is going wrong?

I am not a connoisseur of contemporary art, but I like things made with sense and taste, regardless of the era in which they were created, in what technique and in what form. Even if at first glance they seem ugly, repulsive, incomprehensible. Perhaps I do not like shocking for the sake of shocking and pretentiousness, which is often found now.

Someone talks about the degradation of art, but I don't think so. Humanity has created masterpieces that will not allow to regress.

What are your favorite museums in Moscow and in the world? Who are your favorite artists?

I love the Tretyakov Gallery, the Pushkin Museum, the Hermitage, the Musée d'Orsay in Paris, the Pompidou Art Center and others. When traveling, I always try to visit local museums.

I like artists of different styles, but the classics, academics, impressionists are the first to come to mind. This is Rembrandt, whose «Return of the Prodigal Son» I consider the greatest painting, Repin, Degas, Toulouse-Lautrec, Camille Corot, Konstantin Korovin, Claude Manet, Konstantin Makovsky. I admire Malevich, Kandinsky and, in principle, all the Russian avant-garde. From modern - Lucien Freud, Chinese artist Zeng Fanzhi. Among contemporary Chinese artists, there are absolutely brilliant ones.

INSPIRATION, LIKE LUCK, COMES TO PEOPLE WHO ARE READY FOR IT

What is more valuable for you in painting - a process or a result?

Both categories are equally important, and painting has helped reinterpret them.

The process is often difficult to start – laziness, fear of a white canvas, fear of not achieving the desired result. In the process, it is important not to get upset and not quit if it does not work out right away. It's amazing how something that seemed terrible and impossible to fix is transformed if you just keep working on it.

If you are dissatisfied with the result, then you should not conclude about your mediocrity, about wasted time and money. You analyze the mistakes made; you understand that at this stage of development there can be no better result. And sometimes you have to accept (not without chagrin) that there can be no better result due to objective limitations.

How do you work on paintings, where do you get paints, canvas, brushes? How was the workplace equipped?

At first, I painted in the studio, where all the materials are provided. Now I paint at home, I buy everything in the store. If I am dissatisfied with the result or stuck in the process, I take the work to the studio and ask the teachers for advice. The plans are to start drawing from nature, in the open air.

What time of day is the most creative for you?

Rather, evening, because I am a "night owl".

How long does it take for each of the paintings?

In general, I don't do it quickly. A lot of time is spent on analyzing the picture, making corrections.

Do you create individual works or combine paintings in a series?

I still have a few paintings, about ten, some bought from me. It so happened that I began to paint on national themes. They wrote about me in the "Pravda of Buryatiya" newspaper, which was a pleasant surprise, since I have been drawing for quite a short time and I am still shy to call myself an artist.

How do you combine your work at CPC with your hobby? Does it happen that the emotions received in the office are then transformed into painting?

One of the many positive aspects of working at CPC is the optimal balance between work and personal life, so it is possible to combine work with drawing without compromising both activities.

Emotions received at work are not transformed in painting, since I draw on topics that are remote from jurisprudence.

Corporate law and painting - how do these two different types of art get along in you? Are you resting at your easel from work, or is it something else to call it?

Painting for me is a hobby that helps to distract from work, relieve the brain, it is a process akin to meditation. At the same time, despite the seeming opposite of jurisprudence and painting, they have a lot in common.

In painting, like in jurisprudence, there are laws, without which there will be no good result.

When creating a picture, as in solving a legal issue, first of all you need to determine what is important, what is secondary, and do not forget about this throughout the entire process.

Creating a picture, like jurisprudence, requires a lot of analytical work. As they say, colors should be mixed with brains.

How did you and your colleagues pass the tests of 2020, which was the most difficult?

I calmly got through 2020. Due to the well-coordinated work of all CPC services, the work process did not stop in the context of the pandemic, the quality of work did not suffer.

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ПАНОРАМА
КАСПИЙСКОГО ТРУБОПРОВОДНОГО КОНСОРЦИУМА

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