

PANORAMA

CASPIAN PIPELINE CONSORTIUM



CASPIAN
PIPELINE
CONSORTIUM

CORPORATE MAGAZINE
No 1 (48) February 2025



ISSUE'S FOCUS

COMPREHENSIVE APPROACH, ATTENTION TO DETAIL

OPERATION
PIPE
ROVER

SCIENCE
BUILDING
TECHNOLOGIES

ECOLOGY
AT THE CALL
OF THE HEART

HOBBY
MOVING
TOWARDS SPRING



14

IN THE FIRST PERSON

1 N.N. GORBAN, CPC GENERAL DIRECTOR: APPEAL TO READERS

PIPELINE

2 CPC: 2024 RESULTS

4 COMPREHENSIVE APPROACH, ATTENTION TO DETAIL

OPERATION

10 PIPE ROVER

ENERGY EFFICIENCY

14 EPS PROJECT: ECOLOGY AND ECONOMICS

EVENTS

17 IN MEMORY OF HEROES

SAFETY & SECURITY

18 CULTURE NEWS

SCIENCE

20 BUILDING TECHNOLOGIES

PROFESSIONALS

24 SKY AND SEA

26 CHIEF MECHANIC

ANNIVERSARY

28 AT THE JUNCTION STATION

ECOLOGY

30 AT THE CALL OF THE HEART

THROUGH THE LENS OF HISTORY

34 ANNIVERSARY OF THE OIL GIANT

36 THE FUSS OVER THE CANAL

ART

40 PATH TO THE STARS



LIFESTYLE

44 FASHION, OIL AND MEDICINE

HOBBY

48 WHAT FUN IS TO RIDE

52 MOVING TOWARDS SPRING

DEAR COLLEAGUES AND FRIENDS!

The year 2025 marks the end of the first quarter of the 21st century. The interim results of the Caspian Pipeline Consortium's production activities for this period are quite significant and weighty: in the second half of 2025, the billionth ton of oil will be pumped through the Tengiz-Novorossiysk pipeline system since the start of the enterprise's operation.

As you know, the implementation of the Future Growth Project at the Tengiz field will increase the production of the main supplier of oil to the CPC pipeline system by 12 million tons per year, and we are technically ready to receive these additional volumes. In 2025, work will be fully completed at all DBNP construction sites, a 25-kilometer section of the pipeline in Kazakhstan will be updated, and the Program for the replacement of mainline pumps with gas turbine drives with MLP with electric motors and VFDs at three pumping stations in Russia, having completed the design stage, will enter the phase of practical implementation.

The year 2025 marks the 80th anniversary of the Victory in the Great Patriotic War. The memory of the heroes who brought this day closer is honored in both Russia and Kazakhstan - the soldiers defeated the enemy in one line, side by side. In May, a special issue of CPC Panorama will be released, dedicated to the 80th anniversary of the Victory.

In the Republic of Kazakhstan, 2025 has been declared the Year of Working Professions. In each issue of this



year, CPC Panorama will publish essays about the most experienced, proactive, and respected employees of CPC-K in the Professionals column. The dedicated work of these specialists sets the pace not only for production processes, but also for CPC's charitable activities, which are expanding in scale in both Kazakhstan and Russia. In the Republic of Kazakhstan, last year, the total amount of social projects and programs exceeded 3 billion tenge, and this spring a school will open in Atyrau – the largest charitable project of CPC-K in the past few years.

In 2025, CPC Panorama also celebrates its anniversary: the September issue of the corporate magazine will be 50th. It is important to note that during the publication of the magazine, a circle of regular authors has formed, making the publication more interesting and meaningful with each new publication, and not only in terms of production. I wish them and the entire CPC team new successes and new energy in 2025. We have many plans for this year, and their successful implementation is everyone's business.

N.N. Gorban
General Director
Caspian Pipeline Consortium

CPC: 2024 RESULTS

In 2024, **63 009 481** tons of oil were shipped at the CPC Marine Terminal

In 2024, **584** tankers were shipped

26 819 535 tons received from the Tengiz field

9 816 458 tons received from the Karachaganak field

17 209 596 tons received from the Kashagan field

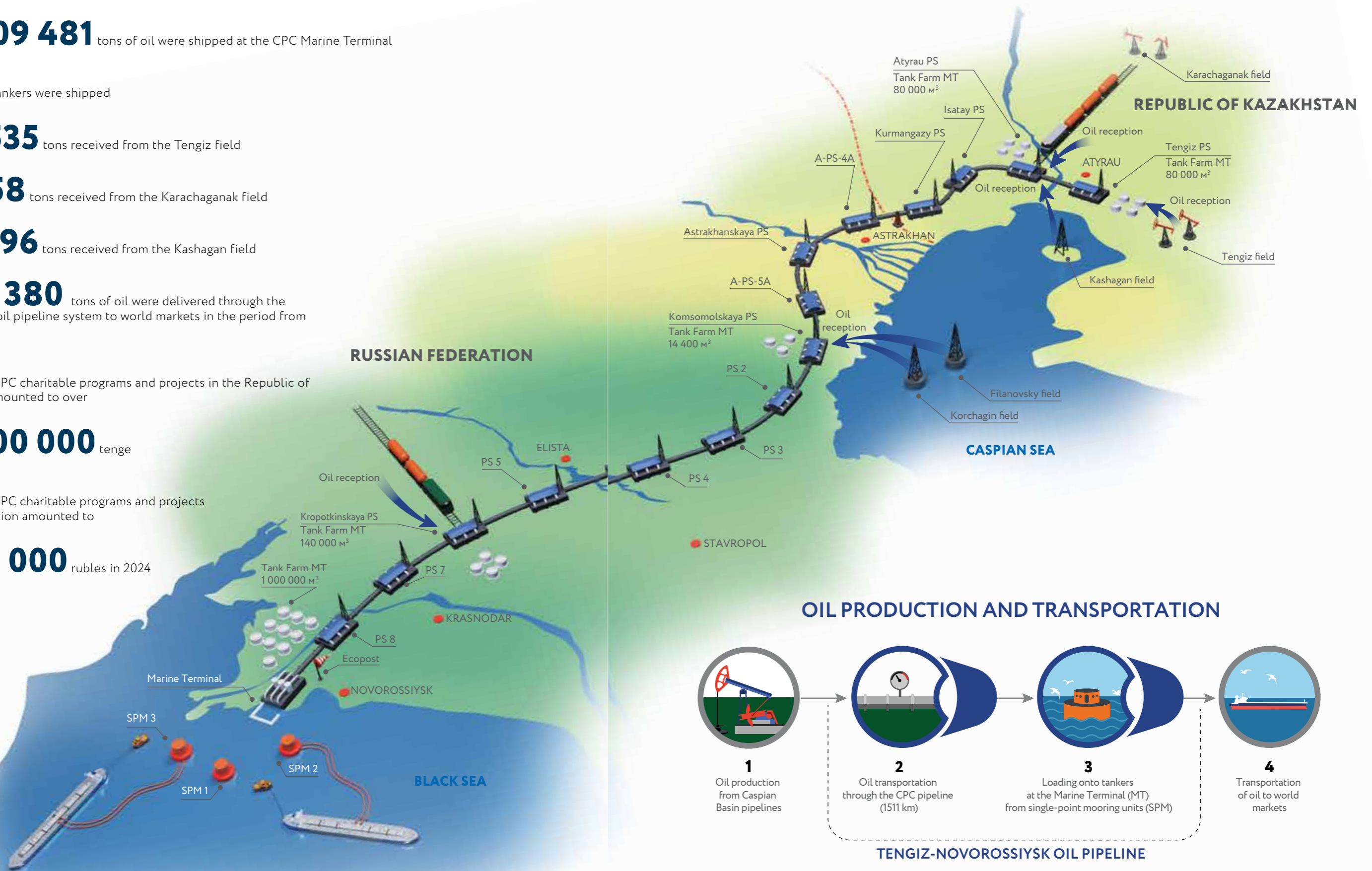
951 086 380 tons of oil were delivered through the Tengiz-Novorossiysk oil pipeline system to world markets in the period from 2021 to 2024

The total amount of CPC charitable programs and projects in the Republic of Kazakhstan in 2024 amounted to over

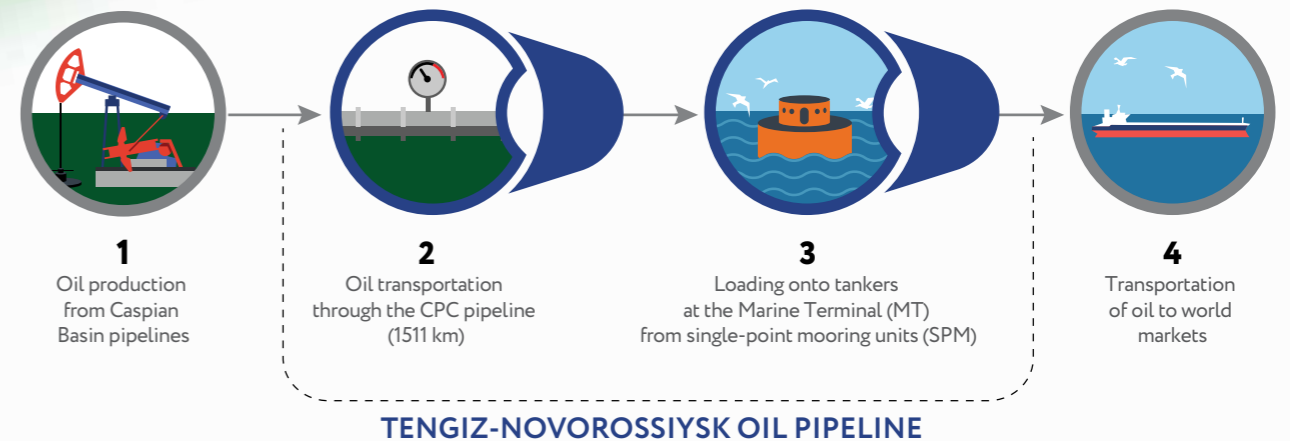
3 000 000 000 tenge

The total amount of CPC charitable programs and projects in the Russian Federation amounted to

783 600 000 rubles in 2024



OIL PRODUCTION AND TRANSPORTATION



AUTHOR
MARIA GNEZDILOVA,
SENIOR SPECIALIST, MASS MEDIA RELATIONS

COMPREHENSIVE APPROACH, ATTENTION TO DETAIL

INTERVIEW WITH THE GENERAL DIRECTOR OF THE CASPIAN PIPELINE CONSORTIUM IN NOVOROSSIYSK. ABOUT CORPORATE SOCIAL WORK, CREATIVITY, CARE FOR THE ENVIRONMENT, PRODUCTION PROCESSES AND HOW ALL THIS CAN BE SUCCESSFULLY COMBINED IN THE COMPANY'S WORK

Nikolay Nikolaevich, a general practitioner's office was opened in Glebovsky District on December 18. This is already the fourth such social project of CPC in the suburbs of Novorossiysk. Why does the company invest so much effort and money in charitable activities?

We traditionally develop charitable projects in the regions where our oil pipeline passes. Our employees work here, their families live here, their children study here, and for our company, the health of employees is a priority. We try to create a comfortable climate for the most effective work of our people, their

full dedication and, of course, this creates a synergistic effect for the population of the regions of our presence.

In addition to medical facilities, CPC invests in the construction of kindergartens, schools, and helps specialized universities and the local population in general.

For example, the four medical institutions we built are located relatively close to the CPC Marine Terminal, and this is important. An employee, in addition to a medical specialist at the terminal, can contact a doctor at the general practitioner's office for a more detailed examination or assistance. It takes at least an hour to get from the Marine Terminal to the nearest hospital, or even more, taking into account traffic jams. These facilities are essential for the district – now you can get a full-fledged first-level diagnostics and treatment without visiting Novorossiysk clinics, that is, without wasting time and money on long trips to the city. Agree that this is very important for the entire population – from children to the elderly.

In Novorossiysk chats, you sometimes come across comments that aid for the city from large companies is like "beads for the Indians" ...

This interpretation is, first of all, incompetent. It implies the enrichment of large companies through unequal exchange, but this is not the case. Large businesses create a special microclimate in the places where they are present, where not only production facilities appear, but also new healthcare facilities, culture, schools, kindergartens, and the transport infrastructure is improved. This improves the quality of life for everyone who lives here, and not just for the employees of the enterprises.

Our projects are thought out to the last detail, we put our soul, strength and resources into them, we make them as useful as possible for the population. And most importantly, charity for us is mutual assistance and creation. Contribution to the stable development of the region where we are present, where we work.

Speaking in general about our charitable activities in Kuban, it is worth noting that over the past five years, 70 units of motor vehicles have been purchased (including 23

units of equipment for educational institutions, 29 ambulances, 12 regular passenger and tourist buses, 6 units of special equipment), medical equipment for regional and district hospitals and clinics for a total of over 200 million rubles, 4 buildings for healthcare institutions have been built.

In 2023 alone, the Caspian Pipeline Consortium allocated over 235 million rubles for social purposes in the Krasnodar Krai. It is expected that by the end of 2024, the volume of charitable assistance to the region will amount to more than 275 million rubles.

In 2025, it is planned to complete the construction of the Cultural and Aesthetic Center for Children and Youth (CACCY) in the village of Yuzhnaya Ozereyevka. The cost of the project is about 540 million rubles.

Of course, I cannot help but mention the educational and cultural projects of the Consortium. CPC participates in the construction and reconstruction of sports facilities for various purposes: from multifunctional sports grounds for team sports to the Children's Tennis Center and a bow range for archery.

Cultural facilities are being reconstructed. In particular, on June 5, 2018, the Kuban Culture House in Novorossiysk, equipped with modern multimedia equipment, was put into operation after reconstruction.

For over 25 years, we have been holding the annual festival-competition "CPC for Talented Children", which helps the younger generation to show their creative abilities. This year, by the way, the competition set a record – almost 22 thousand people took part in it. The main goal is not for every child to become a superstar. We form an understanding of how to set a goal, how to achieve it, and most importantly – we instill hard work.

The projects "CPC for First-graders", "New Year and Christmas Holidays with CPC" and our large-scale project "CPC for Talented

Children", which has been held for more than 25 years, have become traditional.

So these are not "beads" or handouts, this is serious help to the city and the region. We cannot replace the state in this work, but we can certainly provide assistance. And this assistance is aimed at a stable and healthy present and, accordingly, the future.

When it comes to a healthy future, there is no "magic pill" in the world that can cure all diseases. So perhaps a comprehensive approach and attention to detail is needed?

That's right, that's why CPC devotes a lot of time and effort to charitable projects in the field of ecology. Novorossiysk is a city by the sea, although it is a port city, an industrial center. But it is the Black Sea coast with its unique nature. We believe it is important to do everything possible to preserve this nature.

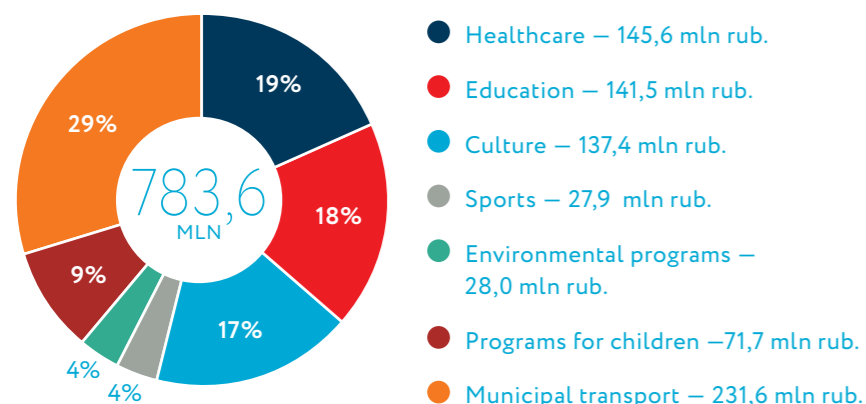
Since 2022, together with the Utrish State Nature Reserve, CPC has been implementing the environmental education project "Protect Nature of Our Native Land". In addition to environmental education lessons for schoolchildren, the project includes planting trees and shrubs, purchasing video surveillance systems for animals, and holding creative competitions on environmental topics. That same year, the company helped Novorossiysk increase the area of green spaces: the Dubrava ecological park was landscaped in the Tsem dolina microdistrict.

This year, as part of the project "Protect Nature of Our Native Land", CPC supported the 7th Open Regional Ecological Festival of the Russian Geographical Society that took place in Kuban. In particular, we helped organize the key event of the festival – a round table devoted to the environmental issues of the Black Sea.

So, back to the main idea. Thanks to all this work, we are confident that our future generation will grow up in a healthy and ecological environment.



DISTRIBUTION OF FUNDS OF CHARITABLE ASSISTANCE OF KTK-R JSC
IN SOCIAL SPHERES



By the way, about the growing healthy generation. Today the CPC company handed over buses – regular, school...

This is already a good tradition of CPC. We respond to “requests” on the ground, work closely with the administrations of the regions where our oil transportation infrastructure facilities operate. Together with them, we determine the most important priority areas of our charitable activities and provide targeted, but constant and highly sought-after assistance.

That is, if people, residents of Novorossiysk, have a demand for replenishment of the vehicle fleet, we will continue to do this. Regular buses are needed – this will make it easier for residents of relatively remote settlements to get to the capital of the municipality.

Well, school buses are a separate good deed. These children are the future of the country – we want to be sure that their way to school will be safe.

I will never tire of repeating and emphasizing that our company has been actively involved in the life of the regions throughout its entire history, including because this is where our employees, their families, children and relatives live. The development of social infrastructure makes their lives more comfortable, safer, and provides more opportunities for leisure, sports,

and participation in cultural events. This means that our employees feel more confident, and do not have to worry about where their children will study, where they and their families will be treated, how to get between work and home, how to spend their weekends. Therefore, CPC has never been and will never be cut off from the life of the regions, and will always continue and improve its charitable assistance in close contact with regional administrations.

Speaking of children, 3D printers have been handed over to schools. What kind of return do you expect from such a project?

And this is again an investment in the future – children are interested in developing in this direction. 3D modeling is a promising trend. With the help of such equipment, you can take your first steps in many professions – for example, in architecture, industrial design, programming.

And charity is probably not an easy job. How do you manage to combine it?

For CPC, this is an investment in the future, as I have already said. All of the company’s social projects are based on the CPC Charity Policy, approved by shareholders, which clearly defines the requirements, priority areas, and the procedure for selecting and implementing

programs. Over the decades, we have developed the so-called “four A principles”: addressability, analysis, anti-corruption standards, administration.

Charitable assistance is not additional injections into local or regional budgets, but the most effective investment of money in specific objects needed for the region at a given time, the implementation of selected projects with high quality and with maximum benefit for local residents.

CPC is focused on providing targeted support. When selecting objects, we focus on local requests. I would also like to note that the company does not support projects that lead to the dispersion of funds or are of a dubious opportunistic nature with a limited social effect.

What do the other three principles mean?

CPC closely cooperates with regional administrations and local authorities. Long-term cooperation agreements have been concluded with each region, in which one of the main areas is the issue of social partnership. Consortium representatives, together with local administrations, conduct a preliminary analysis of needs in various social spheres, determine the list of priority objects, funding volumes, and optimal timeframes for implementing charitable projects. Another important priority of the company is ensuring the transparency of projects and programs in the field of charity.

Planning of work for the year and acceptance of obligations of the CPC in the social sphere begins with the analysis and study of applications from regions. This is done by the CPC Charity Project Selection Committee, one of the tasks of which is to check the compliance of the proposed projects with the CPC Policy, the absence of double financing.

High anti-corruption standards are used at the stage of tender procedures, possible affiliation of

suppliers of goods and services and employees, including regional and municipal authorities, is checked. The cost of contracts undergoes preliminary verification in the Price Control Group of CPC, and the winners of tenders undergo a comprehensive examination: the due diligence procedure. In addition, several years after the completion of the charity project, its results are checked by CPC internal audit staff for compliance with the stated goals. This is the principle of “anti-corruption standards”.

It should be noted that all CPC projects are quite large-scale. And the creation of any of them is the work of a whole team of people.

Indeed, CPC pays special attention to issues of comprehensive support and administration of charitable projects and programs, starting from the stage of holding tenders and ending with the stage of supplying equipment or machinery, commissioning of constructed or reconstructed facilities.

During construction and reconstruction at facilities in accordance with the requirements of the CPC, there is independent control, which ensures that all procedures comply with the design documentation, the execution of the entire list of envisaged works with due quality and within the timeframes established by the contracts.

I will give a recent example: we have almost finished work on the construction of a school in the new Talgayran microdistrict in Atyrau. Its total area is three hectares, it is designed for 900 learners. Inside there will be a medical center, two gyms, an assembly hall. The school territory will be equipped, a sports ground, a football field, a stadium will be built. It would hardly have been possible to build such a large-scale facility without an integrated approach.

We conducted a questionnaire survey of several thousand residents

of Novorossiysk. We found out their opinion about the charity of CPC, asked what was missing, what could be improved, or improved somewhere. It was nice to see positive feedback, of which there was an overwhelming majority. But, as you said, there was also something about the “beads”. We need to take this more simply: no matter what you do, “haters” will always be everywhere, it is inevitable. We just need to keep working and not get distracted.

CPC’s charity is multifaceted. Today we talked about the transfer of equipment, the opening of a new socially significant facility. But CPC also pays great attention to other areas, for example, ecology?

As I have already said, the company has been successfully implementing the project “Protect Nature of Our Native Land” in the regions where it operates for a long time. It includes educational classes on environmental topics with schoolchildren, creative competitions, as well as events to preserve and increase the populations of endangered species of fauna. In the Stavropol Krai, these are red and sika deer, in the Astrakhan Oblast – sturgeon fish species, and in Kalmykia – saigas.

You mentioned the Consortium’s environmental charity projects. What importance does CPC place on environmental protection in general?

Back when CPC was created, its shareholders agreed to use only the best practices in the management, design, construction and operation of oil pipeline transport facilities, and work on improving all aspects of the international company’s production activities never stops.

It is important to consider that our system is maximally closed. For example, the design of the CPC tanks reduces the penetration of oil vapors into the atmosphere by 90%.

The Consortium successfully operates an environmental management system (EMS). In all

regions, our specialists determine the areas of activity that affect environmental safety and the state of the environment. For each aspect, permanent control measures are determined, which are included in work plans, regular events are fixed in internal regulatory documentation. The main result of the EMS is an increase in the environmental safety of production activities by reducing both the impact on the external environment and the likelihood of environmental consequences.

In order to reduce the likelihood of emergency situations, the Consortium’s specialists carry out scheduled and unscheduled inspections, improve plans for the prevention and elimination of oil spills, and regularly conduct exercises to assess the readiness of the company’s personnel and contractors to eliminate the consequences of emergency situations.

Since 2018, CPC has regularly organized open days and round tables for the public, local residents, and media representatives, introducing them to the production processes of oil transportation. Thus, in 2023 alone, two such round tables and a visit by deputies of the Legislative Assembly of the Krasnodar Krai took place. Such contacts make it possible to build a positive dialogue within the framework of CPC transparent environmental protection policy.

Novorossiysk is a port city, an industrial city, there are many enterprises involved in the transshipment of various goods, there is very busy traffic, as you know. The road network still has room to develop. All this affects the state of the atmospheric air in one way or another. Therefore, in 2023, we deployed a stationary post of the atmospheric air quality control system in the oil loading area at the Marine Terminal.

The stationary post of the atmospheric air quality control system is located on the border of the sanitary protection zone of the Shore Facilities of the Marine Terminal at

the point closest to the residential development of Yuzhnaya Ozereyevka village. The post is equipped with certified optical sensors designed to measure the content of various substances in the atmospheric air. Measurements are carried out in continuous mode, the results are posted in the public domain on the website of the corporate magazine CPC Panorama in a special section Ecoinform.

It should be added that the company has put into effect a regulation on reducing the speed of loading tankers in adverse weather conditions. The date and time of the reduction in the loading speed are also published in Ecoinform.

It is probably worth adding the CPC prompt response to the emergency situation in the Kerch Strait?

Yes, together with enterprises of Novorossiysk and neighboring cities, we are taking part in localizing the oil spill during the accident with the Volgoneft-212 and Volgoneft-239 tankers and eliminating its consequences. The tasks have been set, the work areas have been distributed. CPC is eliminating the pollution of the coast in the area of the Blagoveshchenskaya village near Anapa. For this, our company has allocated 9 units of special equipment (excavators, dump trucks, shift buses) and 50 people, per day they cover 1 km of the coastal strip. I share the opinion of the Governor of the Krasnodar Krai that the coast will be cleaned, and this will not affect people's rest in the 2025 resort season.

Here in Novorossiysk at the CPC Marine Terminal, a new domestically produced diagnostic device has recently appeared. How important is this news for CPC in terms of production?

Self-propelled in-pipe service and diagnostic complex with remote control via electro-optical cable-rope is designed to inspect the condition of 5-kilometer underwater

oil pipelines leading from the Shore Facilities of the Marine Terminal to the SPM. It cannot be said that we invented it, before that CPC used such devices of foreign manufacture. But in the current conditions, we decided to develop and manufacture an import-substituting analogue together with a contractor. The resulting diagnostic complex has a number of advantages compared to the previously used imported device. Among them are all-wheel drive, one and a half times more sensors, a higher level of detail. Our new device has already been certified and in December successfully conducted a test diagnostic survey of the underwater oil pipeline at the Marine Terminal.

You are an experienced pipeliner, and this can certainly be considered an advantage for a manager in terms of a specific understanding of production processes. But an oil pipeline is not only technology, it also has many accompanying processes, economic ones, for example, and you need to take part in them as a general director. As far as I know, you have also contributed to the transportation of hydrocarbons as a scientist. Do you manage to find time for new research and the implementation of their results, among other things?

We can mention the first laser scanning of 100,000 cubic meter tanks in Russia. This is our new technology, successfully tested in 2023 at the MT Tank Farm, developed jointly with Gubkin University based on my PhD thesis. Now we can monitor the condition of the metal of hundred-thousand-meter tanks, assessing their service life and planning maintenance and repair schedules.

This year, two sections of the linear part of the pipeline were replaced. How did the work go?

In a word – successfully. One of these sections has already been put into operation. We are talking

about a 17.51-kilometer section near the Komsomolskaya PS (Republic of Kalmykia). On another section in the Astrakhan Oblast, 7.67 km of the pipeline have been replaced and hydraulic tests have been carried out. We plan to put it into operation by March 2025. The next section to be replaced will be a 25-kilometer section of the pipeline in Kazakhstan.

Another important point is the replacement of mainline pumps driven by gas turbines with mainline pumps with electric motors. How are the works progressing in this direction?

Today, we have three stations on Russian territory that use gas turbine units. Including the Kropotkinskaya PS, where the largest volume of oil is pumped. We decided to replace these pumps with foreign-made gas turbine units with domestic oil pumping units with electric motors. An important point is that such units are much more environmentally friendly than their predecessors.

A major contract was signed with the plants of Transneft PJSC. In November 2024, in Chelyabinsk, at the base of Transneft Oil Pumps JSC, parts of a pilot pumping unit were presented and its flow part was successfully tested. In February-March 2025, the pump and electric motor as a set will be transferred to CPC for trial operation. After that, we will begin serial production of pumping units with electric motors and re-equipment of our PS.

Journalists often ask the press service: Has the Debottlenecking Program been completed or is it still ongoing?

All the most important works affecting the capacity of the Tengiz-Novorossiysk pipeline were completed by the end of 2022, as stipulated by the Final Investment Decision. Even then, CPC received the ability to transport about 72.5 million tons of oil per year from Kazakhstan and up to 83 million tons of oil per year through the Russian Federation.



CONSTRUCTION OF THE CACCY IN YUZHNYAYA OZEREYEVKA

At present, construction and installation works have been completed at most of the oil pipeline facilities, new equipment has been commissioned, and decommissioned equipment has been dismantled. Work remains that does not affect productivity, but rather reliability. Work continues at PS 3 and PS 5 (installation of VFD and SRS tanks) and the Marine Terminal (installation of additional PCU and PDS).

What aspects of health and safety have been under particular scrutiny this year?

Safe work is one of the fundamental principles of the company. In autumn 2024, the Caspian Pipeline Consortium successfully passed another external audit of the HSE System for compliance with international standards. In particular, the leadership of the management in the development of a Safe Work Culture at facilities and in offices, the effective use of electronic training systems for the company's personnel and contractors, a developed risk management system, a responsible approach to providing personnel with personal protective equipment, high readiness to eliminate accidents, professionalism in ensuring road

safety, as well as motivational activities to maintain competencies and develop personnel were noted.

This shows the maturity of the Consortium in the field of Safe Work Culture and demonstrates the dynamics of sustainable development in this area.

Recently, another Safe Work Culture Steering Committee was held to sum up the results of the year. As was noted during the meeting, the involvement of contractors in the development of the Safe Work Culture has its effect. Thus, the share of contractors in filling out observation cards for the year has doubled.

An increase in the involvement of the company's personnel in leadership visits and their effectiveness was also noted. The "Best Shift" competition, which has been in effect at the Marine Terminal since 2023, was considered as a pilot program with the prospect of replicating it at other production facilities of the Consortium.

And, of course, we can't help but mention the company's traditional Safety Day?

Yes, in September it was held in Almaty, our annual gathering of leaders and conductors of ideas

of the Safe Work Culture in the teams of both the Consortium and contractors. The main goal of such events is that we cultivate in people a conscious attitude to compliance with the Life Saving Rules of the CPC and, as a result, for several years we have been working with zero injuries and without serious incidents.

Nikolay Nikolaevich, what was the year 2024 memorable for? What are the results of the Consortium's production activities?

The year was eventful. There were many facilities that we commissioned and facilities that began to be built. In 2024, CPC shipped 63 million tons of oil to world markets. The year passed without any industrial injuries, incidents or road accidents for the company. The consortium exceeded the mark of 900 million shipped oil in its entire history, fulfilled all plans for replacing two sections of the linear part in the Astrakhan Oblast and the Republic of Kalmykia, and carried out a lot of work to prepare for the implementation of the project for the future replacement of the SPM.

What are the Consortium's plans for 2025?

We will ship the billionth ton of oil. This is a truly important event, and we will definitely celebrate it. In addition, we plan to replace a section of the pipeline in the Republic of Kazakhstan, complete the installation of VFDs at pump stations and pressure control units at the Marine Terminal. Safety Day will be held in Kalmykia, where we will also hold conferences with the management and middle management of contractors for closer integration into our Safe Work Culture. Our principle of work is not to separate our work from the work of contractors: their indicators affect ours. Only together, only with full responsibility, working in a well-coordinated team, can we achieve a lot. ●

AUTHORS:
ALEXEY MIKHAILOV,
TEAM LEADER, PS AND MARINE TERMINAL OPERATIONS,
DMITRY BENDEROV,
SERVICE HEAD, PS, TANK FARMS AND SHORE FACILITIES OPERATIONS

PIPE ROVER

AT THE END OF 2024, THE CPC MARINE TERMINAL SUCCESSFULLY COMPLETED IN-PIPE TECHNICAL DIAGNOSTICS OF A SECTION OF THE OFFSHORE SUBSEA PIPELINE OF ONE OF THE SINGLE-POINT MOORINGS. FOR THE FIRST TIME, A SELF-PROPELLED CONTROLLED DIAGNOSTIC DEVICE OF DOMESTIC PRODUCTION WAS USED FOR THE INSPECTION



At first glance, in-line technical diagnostics (ITD) of a pipeline is a completely routine job, which is carried out at regular intervals for all main pipelines transporting oil, gas, and petroleum products. It would seem, what is the fundamental difference in in-line diagnostics of a pipeline laid above ground, underground, or underwater? Indeed, the differences are insignificant, but only for sections of pipelines equipped at the beginning and end with scraper receivers for cleaning and diagnostic tools, through which the in-pipe flaw detector is loaded and removed. In this case, the device moves in the flow and due to the flow of the pumped medium in only one direction, and its speed is determined by the operating mode of the main pipeline (reduced).

The CPC's offshore subsea pipelines (OSP) have a different design. Each OSP is equipped with only one receivers on the shore with combined functions of launching and receiving the cleaning and diagnostic equipment during reverse movement. The other end of the OSP is equipped with a pipeline end manifold (PLEM). Structural features and design limitations PLEM allow only cleaning devices of a certain weight and dimensions to pass through in reverse mode and do not allow the use of classic flaw detectors. In world practice, there are several methods for diagnosing such pipelines, preference is given to the use of self-propelled robotic complexes.

What is such a flaw detector? What are its design features, operating conditions, operation and control features? This device, controlled from the shore, is capable of independently moving in an oil-filled pipe at a distance of up to 5 km from the operator's location. It doesn't sound too ordinary, but nevertheless it is quite real.



IN-PIPE SELF-PROPELLED TRACTOR (IST)

Providing power, communication and control, synchronizing movement, monitoring the position in the pipe cavity and distance from base points, the ability to overcome obstacles, tightness, explosion protection and effective cooling

in the field of import substitution of equipment and technologies. Within the framework of this area, the Consortium's management decided to participate in the creation of a Russian-made diagnostic complex.

THE DEVICE PROVIDES CONTINUOUS SCANNING OF THE PIPE METAL WITH HIGH RESOLUTION, EXCEEDING THE LEVEL OF DETAIL OF FOREIGN COMPETITORS

of electronic components — this is only part of the technical problems that must be solved to ensure the effective operation of such a flaw detector.

Despite the rapidly developing robotics industry in recent years, until recently such equipment was not manufactured in Russia, and the Consortium used diagnostic devices of foreign manufacture, in particular a self-propelled flaw detector from ROSEN Group.

As Nikolay Gorban, CPC General Director, noted in his interview (CPC Panorama No. 3 (46), September 2024), taking into account the current realities, the company has done a lot of work

A large volume of practical work was carried out by a specialized contracting organization, STC Diaprom LLC, under the leadership of General Director Andrey Kolodny. Within a short timeframe, a team of designers, engineers and managers developed and then manufactured the required diagnostic complex and conducted its acceptance and then field tests.

On the part of the Consortium, the project implementation was under the constant supervision of Alexey Dmitryukov, Division Head, Operations (General Manager), and specialists from the PS and MT Operations Team.



IN-PIPE FLAW DETECTOR (IN THE FOREGROUND)

The self-propelled in-pipe service and diagnostic complex (the full name of the equipment set, according to the manufacturer's design documentation) consists of three main parts: a winch unit (WU), an in-pipe self-propelled tractor (IST) and an in-pipe flaw detector (IFD).

The main element of the winch unit is a specially designed and manufactured in Russia solid-drawn electro-optical cable-rope OEC – (03-4A-4.5) + 8 × 3.0) – 18.0. Its length is 6750 m. The cable design is unique and has no analogues:

ELECTRO-OPTICAL CABLE-ROPE
OEC-(03-4A-4.5)+8×3.0)-18.0

control and communication are implemented via a fiber optic channel, 24 V power is provided through 8 copper conductors, the Kevlar insert performs the function of mechanical protection and perceives the traction force, and the polyurethane sheath of the cable ensures wear resistance and minimal friction when dragging inside the pipeline. Laboratory tests of the cable showed that when creating a maximum tensile force of 70 kN, the elongation was only 1.8%, while the obtained values of optical signal attenuation indicated that the cable retained the declared characteristics.

The cable reel is mounted on the winch unit frame. The reel drive is synchronized with the tensioning mechanism. The WU is controlled from the operator's workstation using specially developed software.

Speaking of the fact that the Russian cable has no analogues at the current time, it is reasonable to compare it with the cable produced by ROSEN Group. In the foreign cable, the role of the Kevlar insert is performed by a steel braid, which means that the

weight of the foreign analogue is much greater, which dramatically affects the characteristics of the winch unit and the in-pipe self-propelled tractor.

The in-pipe self-propelled tractor is a very complex element of the diagnostic complex, which is used as a traction device for the in-pipe flaw detector. The IST consists of dozens of parts designed and manufactured at various specialized Russian enterprises under conditions of extended cooperation. In one explosion-proof case of the IST it was possible to compactly place the electronic control unit, the power transformer with an uninterruptible power supply, and a closed hydraulic system that controls each of the six IST wheels independently of each other. Each wheel is driven by its own hydraulic motor.

For comparison: the device manufactured by ROSEN Group had only four driving wheels out of six. The all-wheel drive significantly improved the controllability, off-road capability and traction of the IST. The force on the cable-rope from the IST body is transmitted due to the use of the so-called Hooke's joint (a cardan joint with load distribution elements) in the design.

The in-pipe flaw detector (IFD) is the central element of the service and diagnostic complex. The IFD is equipped with two odometers, which independently determine the distance traveled. The main technical feature of the IFD is the immersion ultrasonic sensors manufactured in Russia in the amount of about five hundred units, located in the diagnostic unit.

The design of the sensors (their number is one and a half times more than in the ROSEN Group device) and the special layout of their placement ensure continuous scanning of the pipe metal with high resolution, exceeding the

level of detail of the foreign competitor.

One of the most complex engineering tasks solved by the team of designers when creating the in-pipe flaw detector was ensuring the tightness and explosion protection of each sensor placed in special cells of the diagnostic unit.

Commissioning works, which included software refinement, elimination of "teething problems", fine-tuning and adjustment of each element of the service and diagnostic complex separately, as well as painstaking work on debugging the joint functioning of the system elements, took more than one month.

The final, but no less important stages of creating new equipment intended for use at hazardous production facilities are acceptance tests and certification. These stages of project implementation must be carried out in accordance with the requirements of the legislation of the Russian Federation and the Customs Union in the field of industrial safety.

Acceptance tests of the self-propelled in-pipe service and diagnostic complex were carried out by a commission, including authorized representatives of the Federal Autonomous Institution «Russian Maritime Register of Shipping» (FAI RMRS), with the issuance of the corresponding certificate.

The test stand, specially designed and manufactured for this project by STC Diaprom LLC, was a full-size section of the pipeline filled with process water and equipped with structural elements inherent in the real configuration of the OSP SPM of CPC. Certification for compliance with the requirements of the technical regulations of the Customs Union and obtaining certificates was carried out by a specialized expert organization.



WINCH UNIT



TEST STAND

After completion of all technical works and receipt of permits, it became possible to relocate the service and diagnostic complex to the CPC Marine Terminal to conduct in-pipe technical diagnostics of the OSP SPM.

In-line diagnostics of OSP using the latest equipment was performed for the first time, a section of 450 m in length was planned for the start of diagnostics. The progress of the work was supervised by a representative of the FAI RMRS, as well as specialists from CPC. The diagnostic complex was managed by specialists from STC Diaprom LLC, support was provided by employees of STARSTROY LLC.

The in-pipe flaw detector allows to detect various types

of defects, including changes in geometry (dents, corrugations), delamination, metal loss. The qualifications and accumulated experience of the specialists of STC Diaprom LLC make it possible to analyze the information received, classify and link the anomalies identified as a result of diagnostics.

Based on the data obtained, a corresponding technical report will be prepared, which will form the basis for subsequent planning of the life cycle of the offshore subsea pipeline.

The diagnostic device completed its task successfully, without any issues, and a number of diagnostic studies of offshore subsea pipelines are already planned for 2025.

AUTHOR
PAVEL KRETOV

EPS PROJECT: ECOLOGY AND ECONOMICS

AT THE BEGINNING OF 2025, THE CONSORTIUM CONTINUES TO IMPLEMENT THE SECOND PHASE OF A LARGE-SCALE PROGRAM TO REPLACE MAINLINE PUMPS WITH GAS TURBINE DRIVES WITH DOMESTICALLY PRODUCED MAINLINE PUMPS WITH ELECTRIC MOTORS EQUIPPED WITH VFDs. WE ARE DISCUSSING THE CURRENT STATUS OF THE IMPLEMENTATION OF THE EPS PROJECT, AS IT IS CALLED IN THE COMPANY FOR BREVITY, AS WELL AS ITS ECONOMIC AND ENVIRONMENTAL EFFECTS WITH THE DIRECT PARTICIPANTS

schedule, within the framework of phase No. 2 “Development”, design is underway, questionnaires for equipment and materials of priority delivery have been developed, a VFD, a ventilation unit for blowing and cooling the MLP electric motor, a prototype of a pump and an electric motor have been manufactured”, Igor Lisin, Technical Director, Manager of DBNP, comments on the status of the EPS Project implementation. “In February 2025, it is planned to conduct joint comprehensive tests of the mainline pump with an electric motor, VFD and ventilation unit”.

Based on the results of successful comprehensive testing of the MLP prototype, the next, third phase of the program for replacing mainline pumps with gas turbines with MLP with electric motors will be launched – “Implementation” in terms of purchasing equipment with long manufacturing lead times in the customer’s area of responsibility for delivery.

IT ALL STARTED WITH DIESEL

The reason for the initial equipment of the mainline pumps of a number of PS of the CPC oil pipeline system was the absence of a developed power supply network in the south of Russia during the period of its construction. As old-timers of the CPC say, the oil pipeline was created taking into account complete autonomy and self-sufficiency.

“In June 1998, the Giprotuboprovod design institute carried out a “Study of Alternative Energy Sources” with consideration of various options for pump drives”, says Alexander Seskov, EPS Chief Project Engineer. “Due to the lack of necessary network connections with the central region and the general tension of the energy balance, the most effective option at the time of the design work with the lowest reduced costs was the option using pumps driven by a turbine and generator units

Kropotkinskaya PS, Komsomolskaya PS, A-PS-4A – as previously CPC Panorama reported (No. 3 (46) September 2024), in the coming years at these three stations it is planned to replace the mainline pumps driven by gas turbine units with MLP with electric motors. The replacement program started in 2024 and is currently in the second stage of implementation.

In November 2024, at the production site of Transneft Oil Pumps JSC in Chelyabinsk, manufactured parts of the first pilot

pump unit were demonstrated to representatives of the Consortium and its shareholders. Tests of the flow part model of the pilot pump showed compliance with all calculated Q-H characteristics, the requirements of GOST 32601-2022 and API 610. The production of power electric drives is also carried out by the Russian Electric Engines JSC, which is part of the system of organizations of Transneft PJSC. They will be equipped with variable frequency drives (VFD) also of domestic production.

“At present, in accordance with the project implementation



WORKSHOP OF THE RUSSIAN ELECTRIC ENGINES PLANT IN CHELYABINSK

running on diesel fuel (as the main fuel, by producing it at the pumping station using fuel preparation units) and natural gas”.

A quarter of a century later, the electric power infrastructure along the CPC pipeline route has been significantly improved. During the implementation of the Expansion Project (2010–2018), new pump stations were built taking into account external power supply (EPS). The equipping of mainline pumps variable frequency drives (VFD) within the framework of the DBNP (2019–2025) already allows us to talk about significant energy savings compared not only to diesel, but also to gas versions of MLP power drives.

“The VFDs are used at the facilities at the Astrakhanskaya PS, A-PS-5A, PS-2, PS-3, PS-4”, explains Ratmir Timirgazeev, Service Head, Mechanical and Process Equipment Repair and Maintenance, “The energy savings at these stations are very noticeable”.

As is known, variable frequency drives allow to regulate the pressure at the input and output

THE REPLACEMENT PROGRAM STARTED IN 2024 AND IS CURRENTLY IN THE SECOND STAGE OF IMPLEMENTATION

of the PS, as well as the pressure control units at the output of the MLP. The installation of VFDs at three pumping stations within the framework of the EPS project will increase energy efficiency on the scale of the entire Tengiz-Novorossiysk pipeline system.

“The analysis of actual and planned pumping modes showed that the reduction of power losses due to throttling is observed as the distance from the pumping station to the beginning of the pumping section increases”, says Alexander Seskov, EPS Chief Project Engineer. “The use of variable frequency drives for pumping equipment will eliminate these losses by reducing the pressure of pumps when changing speed to the values required for pumping performance and, as a result, reduce the cost of electricity

losses during pressure throttling. At the same time, VFDs also make it possible to increase the stability of pumping units in the presence of problems with the external power supply of the pump station, and to increase the stability of the oil pipeline operating modes in the presence of emergency situations and related transient processes.

BONUSES OF THE “ENERGY TRANSITION”

The policy in the field of labor protection, industrial safety and environmental protection serves as a basic document defining the production and economic activities of CPC. One of the provisions of the Policy states that “the company is aware of its responsibility for preserving a favorable environment for future generations and defines the

rational use of natural resources in the implementation of economic activities, the preservation of ecosystems and biodiversity, the minimization of environmental pollution, and production waste as its priorities". Thus, at one time, the transfer of energy supply of the CPC PS from diesel generators to external power grids gave a cumulative effect of reducing emissions of harmful substances into the atmosphere by 50%. What, in turn, will be the environmental effect of the "electrification" of the three PSs this year?

"The environmental impact of introducing electric drives instead of GTUs is significant and diverse", says Arina Nikolaeva, Environmental Manager. "This includes reducing greenhouse gas emissions, which is especially relevant in the context of combating climate change, and improving air quality in the PS area by reducing emissions of pollutants such as nitrogen oxides and suspended solids. In addition, electric drives produce much less noise compared to GTUs. Reducing noise pollution allows us to significantly reduce the disturbance factor for animals living in the PS area".

The impact of the "electrification" of the pump stations, two of which receive oil from shippers, and one of which is the largest, on the modes and volumes of pumping of the entire CPC oil pipeline system is another issue that may be of interest to many.

"As part of the implementation of the Mainline Pumps with GTU Replacement Program, it is planned to maintain the current nominal throughput capacity of the CPC oil pipeline system sections adopted as part of the DBNP implementation, which allows for pumping of shippers' requests for a 16-year period (2024–2039) and with optimal consumption of antifriction additive", – notes Igor Lisin, Technical Director and



CPC DELEGATION AT THE ROTOR ASSEMBLY WITH THE WORKING WHEEL OF THE MLP PROTOTYPE

Manager of DBNP. "Considering the need to maintain the oil pipeline operation factor adopted for the DBNP, a similar target operation factor of 0.95 (347 days) has been adopted for the CPC PS as part of the implementation of the MLP with GTU Replacement Program. Such indicators will be ensured by a rational choice of equipment, its redundancy and increased requirements for its reliability, as well as the use of modern automation tools. At the same time, taking into

account timely maintenance and operation, the actual value of the oil pipeline operating factor after the implementation of the MLP with GTU replacement program may be higher than 0.95, which will also ensure a significant reduction in operating costs, mainly due to a reduction in energy costs, especially in terms of AFA consumption. Changes in the actual operating factor have a significant impact on the cost of transporting a unit of oil volume".



HIGH VOLTAGE MOTOR STATOR WINDING

IN MEMORY OF HEROES

CPC PRESS SERVICE

THE YEAR 2025 MARKS THE 80TH ANNIVERSARY OF THE VICTORY IN THE GREAT PATRIOTIC WAR. CPC PANORAMA IS PREPARING A SPECIAL ISSUE DEDICATED TO THE EVENTS AND HEROES OF THE GREAT PATRIOTIC WAR. THIS COLLECTION OF HISTORICAL ESSAYS WILL BE PUBLISHED IN MAY 2025

In each of the regions where CPC is present, the war of 1941-1945 left its fiery mark, in each of them Victory was selflessly forged, and front-line soldiers and home front workers brought this day closer as best they could. The memory of these heroes lives in virtually every family of the CPC multinational workforce. A special section "We will Remember" has been created on the magazine's website with stories of the heroic deeds of our fathers, grandfathers and great-grandfathers.

The night of February 3-4 is a significant date in the history of Novorossiysk. In 1943, at 1:40 a.m., an auxiliary landing force of 250 people under the command of Major Caesar

Kunikov landed on the western shore of Tsemesskaya Bay near the village of Stanichka, and at 2:30 a.m. the main group of 1,450 people landed on the coastal strip of the village of Yuzhnaya Ozereyevka. During the fighting, Kunikov's landing force became the main one and held the bridgehead for 225 days, which played an important role in the liberation of Novorossiysk and was called Malaya Zemlya.

On February 3, 1968, the military-patriotic action "Sailor Cap" was held for the first time in Novorossiysk. One of the initiators was a participant in Kunikov's landing, nurse Elena Ostapenko. In memory of the heroic deeds of the paratroopers, the naval sailor's headdress was solemnly lowered

into the waves of Tsemesskaya Bay. Since then, the «Sailor Cap» action has been held annually. In 2024, the laying of wreaths and visor caps at the landing sites of paratroopers was timed to the historically accurate time.

This year, the CPC Marine Terminal team took part in the 57th "Sailor Cap". The consortium provided a boat for going out to sea and laying a sailor cap and flowers on the water. The day before, the Marine Terminal workers organized the cleaning of the coastal strip in the area of the event. Pipeliners also took part in the ceremonial events – together with residents of the Glebovsky rural district, schoolchildren, naval sailors, paratroopers and cadets of the Naval Academy. As part of the All-Russian military-patriotic action «Sailor Cap-2025», a flame was lit from a torch delivered from Heroes' Square at the "Unconquered" memorial in the village of Yuzhnaya Ozereyevka. Here, the participants of the action were presented with the literary and musical composition "Let's Stand Up for the Motherland", and then the memory of the landing heroes was honored by laying a sailor cap and a garland of flowers on the water of the Black Sea. By tradition, residents of houses from Gelendzhik to Anapa put lighted lamps on the windowsills. Warm lights of memory burned all night – in honor of those who brought the Great Victory closer.



AUTHOR
DMITRY KONSTANTINOV

CULTURE NEWS

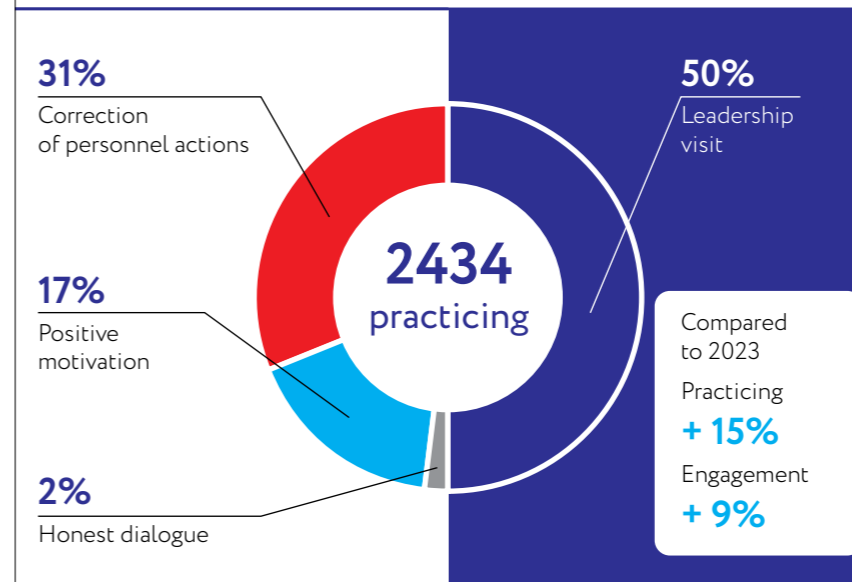
IN ANTICIPATION OF AN INDEPENDENT AUDIT TO ASSESS THE LEVEL OF CORPORATE SAFE WORK CULTURE, THE EDITORIAL BOARD OF CPC PANORAMA COLLECTED DATA ON THE DYNAMICS OF DEVELOPMENT OF THIS AREA IN THE COMPANY AND PRESENTS THE LEADERS OF THE FOURTH QUARTER OF 2024

of CPC specialists who filled out observation cards increased by 10.8%.

The staff engagement in leadership practices in 2024 exceeded the similar indicators of 2023 by 9%. At the same time, the growth among managers by the same indicator amounted to 75%. The total number of leadership practices worked out (half of which were leadership visits) amounted to 2,434 units, showing a 15% increase compared to last year's statistics.

The Western region demonstrated the greatest activity in filling out observation cards and leadership practices. In total, 6,699 observation cards were filled out by CPC employees and contractors in 2024. During the same time, training was organized for 1,241 employees and 52 meetings of facility, regional and management committees for the development of the Safe Work Culture were held.

STATISTICS OF LEADERSHIP PRACTICES 2024



At the meeting of the Steering Safe Work Culture Committee held in December 2024, in particular, the implementation of the HSE Strategic Plan for 2022-2024 was assessed, proactive (leading) indicators

for 2024 were analyzed, and the dynamics of digitalization of safety tools was discussed. The annual "Best Shift" contest held at the Marine Terminal was also reviewed as a pilot program with the prospect of

replication at other production facilities of the Consortium.

This competition was first organized in 2023 as a motivational tool for developing a Safe Work Culture for the employees of the CPC Marine Terminal. Every year, starting in January, pump and process unit operators, electricians, instrumentation technicians and other specialists compete in four nominations: "Example: One for All", "Reference Point: Practical Approach", "Inspirer: Motivator", "Driver: Idea Generator".

The developed evaluation criteria are clear, transparent and interesting for all participants of the competition. The criteria include the number of initiated technical measures, the number of closed measures to eliminate HSE non-compliances, the number of implemented leadership practices and completed observation cards. Based on the evaluation results, competition participants are awarded points and bonuses.

In 2024, which passed without injuries or serious incidents in the company, there was a quantitative

and qualitative increase in the involvement of CPC employees in the development of the Safe Work Culture. Thus, the number



ALEXEY SITNIK, Deputy Regional Division Head, Marine Operations, CPC-R
Made a proposal to organize measures to prevent the SPM from leaving the vessel's centerline in dangerous areas during static towing of a tanker. Following the review, the corresponding changes were made to the working procedure.



RUSLAN KHAMKHOEV, Construction and installation works master of SNGS LLC
Organized safe work at the Marine Terminal in accordance with the requirements of the work permit. Having timely assessed the risk, prevented work with special tools in the immediate vicinity of the operating process equipment (SRS).



MAXIM PETROVSKY, PS-5 Operator, CPC-R
Used the right to suspend the work of the Kropotkin emergency recovery point team in the pit, which was started without permission from the PS operator and verification of the completeness of the preparatory measures.



ALEXANDER RUSSKIKH, PS-3 Operator, CPC-R
During the year, put forward a number of initiative proposals to adjust the conditions for safe work at the production facility in the form of diagrams and drawings. Based on the agreed initiatives, he organized independent and management work on their implementation.



ILDAR DUSMUKHAMEDOV, foreman of STARSTROY LLC
At the treatment plant site, A-PS-4A identified erroneous marking of the positions of the VA 15.4 manual valve before the FIT-0800 flow meter. Following the review of the observation card, the marking was corrected.



SULTAN ZHUMIN, Tengiz PS Shift Supervisor, CPC-K
Used the right to suspend the work of the contractor's team based on the violation of the CPC Life Saving Rule No. 5 – the lack of protective equipment when working at height. The work was stopped, the team personnel were removed from the territory of the PS.

AUTHOR
PAVEL KRETOV

BUILDING TECHNOLOGIES

RELIABLE, SAFE AND DURABLE OPERATION OF OIL TRANSPORTATION FACILITIES IS DIRECTLY RELATED TO HOW WELL THEY WERE BUILT. WE ARE TALKING ABOUT THE CURRENT STATE OF AFFAIRS IN THIS AREA WITH THE HEAD OF THE DEPARTMENT OF CONSTRUCTION AND REPAIR OF GAS AND OIL PIPELINES AND STORAGE FACILITIES AT GUBKIN UNIVERSITY, PROFESSOR, DOCTOR OF TECHNICAL SCIENCES GENNADY VASILIEV

Gennady Germanovich, you have been working at the Russian University of Oil and Gas for almost 50 years and, probably, you are more competent than many to assess the path that science has

taken in pipeline construction technologies?

Life, of course, did not stand still. Construction technologies appeared, for example, trenchless methods of laying pipelines, laser welding, high-strength steels,

composite materials, new types of insulating coatings. In some ways we have gone ahead, but, unfortunately, some things have also been lost. For example, in our country there was a special design bureau – Gazstroy Mashina,

which designed special equipment for pipeline construction and at the site of which guests were taken for a ride in a carriage with a magnetic suspension. This development was supposed to serve the purpose of creating a new type of high-speed transport. This organization no longer exists, and with it, in particular, domestic high-performance rotary excavators disappeared, because they thought that it was easier and cheaper to buy imported ones. But it turned out that this is not always the case. Yes, the global division of labor exists, but there are critically important technologies that should not be abandoned under any circumstances, regardless of any short-term savings.

Now we understand that we need to develop our own technologies first and foremost. Recently, our chemist colleagues have received a lot of requests from companies to the university related to developments in the field of petrochemistry, oils, catalysts – previously they were not in such demand due to the dominance of foreign products.

Not in all areas does domestic science lag behind the world level. Thus, recently, the technology of ground-based laser scanning has been increasingly used. The main area of application of ground-based 3D laser scanning is the creation of an accurate digital 3D model of buildings and structures, elements of their



CPC SPECIALISTS, TOGETHER WITH SCIENTISTS FROM GUBKIN UNIVERSITY, PROPOSED USING A THREE-DIMENSIONAL LASER SCANNING TECHNIQUE TO MONITOR THE CONDITION OF RESERVOIRS

structures and equipment, as a rule, for the purposes of subsequent architectural and construction design. Specialists of the Caspian Pipeline Consortium, together with scientists from Gubkin University, went further and proposed using the method of three-dimensional laser scanning of tanks to solve the problem of monitoring the condition of tanks under cyclic loading, which is a mandatory element of the

technological process of the marine terminal.

What can you say about the changes over half a century in the programs and methods of training students in your specialty?

Yes, it has been quite a long period for both the country and the university. A lot has happened, both good and not so good. In the late 1950s, a new specialty, “construction of main pipelines, gas storage facilities and oil depots”, appeared in the oil and gas industry and at our university. Initiating its creation, the first head of the Ministry of Construction of Oil and Gas Industry Enterprises of the USSR, Alexey Kirillovich Kortunov, noted: opponents of the initiative simply do not realize the full scope of pipeline construction. Later, related departments were



opened in Ufa, Tyumen and Ivano-Frankovsk. The specificity of the “construction” departments was that their teams, like the MSUCE (Moscow State University of Civil Engineering) in miniature, covered linear, land and marine construction at once, only on a smaller scale and taking into account the hydraulic and linear-extended specifics of pipeline transport systems. It should be noted that engineering education in the USSR in our specialty was of high quality in terms of both the volume of knowledge obtained and the initial practical skills, and four graduating departments covered the entire country’s need for personnel in this profile. In the 1980s, perestroika marked the beginning of a continuous process of change in the education system. It began with the “humanitarianization” of higher education, which was implemented by reducing the hours allocated to technical disciplines. This was followed by the “consolidation of specialties” with the effect of reducing the hours allocated to special technical disciplines.

In the next period, we had an excessive bias towards the Bologna system of education. There is a lot of talk about the negative aspects of this, even without me. I will only note that today only Moscow’s Gubkin University and Ufa’s USOTU train construction specialists in the field of oil and gas transport. Several other universities graduate bachelors in a broader

profile — design, construction and operation. This means that students of these universities study the construction of all oil and gas pipeline transport facilities within the framework of only one or two courses. The broadest “erudition” is among graduates of bachelors in the field of “oil and gas engineering” — they are trained by more than 50 Russian universities. And it is most difficult for them, for example, to continue their studies here, in the master’s program at Gubkin University, since they have never had to get acquainted with Bernoulli, Barlow, or even Shukhov. A broad profile is always at the expense of depth.

In this regard, it is significant that, along with the universities of Grandfield University (UK), Ghent University (Belgium), Lamar University (U.S.A.), the Gubkin Russian State University of Oil and Gas (National Research University) is an academic member of the International Pipeline & Offshore Contractors Association IPLOCA.

There is another problematic aspect associated with the fashionable word “competence”. In the classical definition, the concept includes knowledge, skills in using the acquired knowledge and experience — the son of difficult mistakes. It’s like learning to drive a car: you can learn the traffic rules, the structure of the engine, but mastering the profession requires practice, practice and practice. In

2024, we had the third recruitment for a specialty, the program of which includes several types of practice. Young people came more motivated, more goal-oriented. In general, they successfully cope with a more intense program. The problematic issue is the organization of industrial practices. In the Soviet Union, all this was solved by linking universities with real production.

Isn’t that the case now? After all, for decades it has been said in Russia that without close contacts between educational institutions and industrialists it is impossible to train a specialist who meets all the requirements of real production? Nothing has changed?

Things have changed. Transneft, Gazprom and other major oil and gas companies do a lot. But, unfortunately, not in the field of education of construction students. Construction companies have significantly fewer opportunities than oil and gas companies. They have fewer organizational and financial resources, opportunities for long-term planning of the use of human resources. There is a community of construction organizations — the Union of Oil and Gas Builders, but in order to develop its activities in the field of education, there is not enough stable material base. By the way, instability of construction organizations is quite typical and, if I am not mistaken, from the times of the USSR to the present day, of all the oil and gas construction organizations, only the Welding and Assembly Trust has survived in its original form.

How do you assess the level of modern students in general? Can you highlight any of their strengths or weaknesses compared to students of previous generations?

Of course, new generations are different, even according to Darwin. Pick up a phone and dial any abstract number. So, you are closer to the youth: you dial with one thumb.



Modern students dial with both thumbs. And my peers and I work with the index finger. That is, the youth is more adapted to gadgets. On the other hand, they have practically lost the skill of working with paper media. I think that it is irreversible: young people will no longer work with non-digitized information. But all this is more than compensated for by the speed of perception of digital information. Once, during a lecture on decision-making criteria, I asked the students how many of them were familiar with A.P. Chekhov’s short story “A Guide for Those Wishing to Marry”. It turned out that only three had read it, but the rest found and quickly mastered the entire text while we were discussing this topic.

In other respects, they are just as good, motivated students. Dynamic, active, mentally prepared to travel all over the country, as the construction profession requires. There are fewer girls studying in the profession, but many of them can give the male part a head start. It is indicative that girls are more often the heads of the groups. Our graduates are invariably in demand and highly valued in the labor market.

You were awarded the Russian Government Prize for the creation

and implementation of a new technology for the construction of pipelines at oil and gas facilities in Western and Eastern Siberia, ensuring environmental and operational safety. Tell us what this technology was?

I believe that this award is a merit of all my teachers. Our department has always had very close contacts with industry. This was the case under V.D. Taran and V.L. Berezin. Professor L.G. Telegin, my teacher, specialized in issues of organizing the construction of main gas and oil pipelines. And my doctoral dissertation, dedicated to the adaptive system, is a continuation and development of his works. Now it is called BIM (Building Information Modeling) ensuring the management of resources, time, supplies, process. Today these are common things, many of which are even included in the standard Microsoft application package. But at that time it was a revolutionary approach, even contradicting the then ideology, which required completing construction projects by planned dates. Moreover, we worked on domestic computing equipment, used domestic software products, since all this was on the equipment of the Main Information and Computing Center of the USSR Ministry of Oil and Gas Construction.

What scientific topics and research do you and your department staff consider to be the most relevant today? What areas are you personally leading?

In the construction of pipeline transport systems, it is especially important to introduce new materials, including high-strength steels and composite materials, develop energy-efficient, environmentally friendly construction technologies, ensure the reliability and safety of both construction processes and their result — new objects of pipeline transport systems. We continue to study soil stabilization methods during construction in permafrost zones, expand the boundaries of the use of 3D laser scanning technology. We have interesting topics on the construction of oil and gas pipelines in foreign countries — with our postgraduate students from Vietnam, China, Venezuela, Iran, etc.

Have you ever interacted with CPC staff on science, training, professional development? Have you visited the Consortium’s facilities?

I have not only visited CPC facilities, but also in the late 1990s I was a member of the state expert commission to assess the admissibility of the initial project for the construction of the Tengiz-Novorossiysk oil pipeline, including the marine terminal. It is important to note that everything that was laid down in the concept of environmental safety of the CPC system was implemented. I have had the opportunity to visit the Consortium’s divisions in their present state. The Marine Terminal makes a magnificent impression — both in terms of scale and production culture. It is operated competently, and excursions should be held here to exchange experiences. And Gubkin University continues to closely cooperate with CPC specialists today, both in the field of personnel training and in the field of scientific developments.



MT OPERATION TEAM

SKY AND SEA

VASILY VIKTOROVICH GORKIN IS A LEAD MECHANICAL ENGINEER AT THE CPC MARINE TERMINAL. HE HAS BEEN WORKING HERE SINCE JULY 2002, ENJOYING THE WELL-DESERVED RESPECT OF HIS COLLEAGUES AND MAKING A SIGNIFICANT CONTRIBUTION TO THE STABLE AND RELIABLE OPERATION OF THE LEADING PRODUCTION FACILITY



BLAGOVESHCHENSKAYA STANITSA, DECEMBER 2024



REPLACEMENT OF THE BALL VALVE, 2020

In the history of oil and gas transportation, there have been many cases of intersection with the air transport industry. Both aircraft turbines were used for pumping, and projects were ordered from TsAGI. And many important and useful things for oil pipeline enterprises were done by engineers with diplomas from aviation institutes. There is no doubt that the transportation of hydrocarbons and aviation are connected by one common rule: the most valuable thing here is the life and safety of people behind the stable and trouble-free operation of mechanisms and equipment.

In 1990, Vasily Gorkin graduated from the Kiev Institute of Civil Aviation Engineers with a degree in mechanical engineering, specializing in "Operation of Aircraft and Engines". In that decade, domestic aircraft manufacturing and air transport were going through hard times, but qualified and talented mechanical engineers were needed in the actively reforming and developing oil and gas industry.

In the summer of 2002, Vasily Viktorovich began working for the Caspian Pipeline Consortium as a

mechanical engineer. For the company, these were the years of reaching the first design capacity level – 28.2 million tons of oil per year. They were followed by new stages of development – the Expansion Project with the achievement of the pipeline throughput capacity of 67 million tons of oil per year and the Debottlenecking Program with an increase in capacity to 83 million tons. Taking part in each of these modernization projects, Vasily Gorkin always took an active position, offering a total of more than a hundred technical solutions aimed at improving the safety, reliability, economic efficiency of equipment and technological processes. To date, 90 of them have already been successfully implemented.

Under the leadership of Vasily Viktorovich, a project to replace thermal relief valves was implemented, which made it possible to completely avoid accidents in the underwater section and eliminate the risks of harm to the Black Sea ecosystem. Vasily Gorkin personally participated in the reconstruction of scraper launcher for cleaning and diagnostics of the pipeline at the Shore Facilities of the Marine Terminal. The implementation

of this project made it possible to completely eliminate oil and gas emissions through the valves of the chambers during the reverse flow of the cleaning agent and to minimize the risks to the environment.

At all stages of the design of the DBNP, Vasily Viktorovich proved himself to be a competent specialist: when reviewing the design and estimate documentation, he made more than 30 proposals aimed at optimizing the technological process of metering and loading oil onto tankers. In 2023, Vasily Gorkin took an active part in all stages of commissioning, connecting the constructed metering units to the existing process pipelines at the Shore Facilities of the MT.

Vasily Viktorovich constantly puts forward proposals for management consideration to improve the safety of the Marine Terminal as the most important node of the CPC pipeline system. He takes an active part in projects related to ensuring further prospective increase in the productivity of the main oil pipeline. One of them is the project on modernization of SVFRT-100000 tanks for operation in conditions of increased oil temperature.

The group of mechanical engineers of the Marine Terminal, headed by Vasily Gorkin, successfully copes with the tasks set for organizing the maintenance and current repairs of mechanical and technological equipment, supervises the performance of work on major repairs, as well as the production of construction and installation work at new construction sites, including the DBNP, which ensures the accident-free and uninterrupted operation of all technological facilities of the terminal.



ON THE INSPECTION OF NEW OBJECTS TANK FARM, 2014

head of the administration (governor) of the Krasnodar Krai, in 2021 – the commemorative medal "25 years of the Caspian Pipeline Consortium". In 2024, Vasily Viktorovich celebrated his 65th anniversary and was awarded a Certificate of Merit from the Ministry of Energy of the Russian Federation.

V. V. Gorkin has more than 23 years of experience in the oil industry. During this time, he has established himself as a specialist who is able to successfully complete assigned tasks, and has a detailed knowledge of regulatory federal and internal documents. Vasily Viktorovich takes an active position in defending the interests of the company, knows how to plan his work and set goals. Vasily Gorkin's extensive experience and professionalism contribute to

VASILY GORKIN ALWAYS TOOK AN ACTIVE POSITION, OFFERING A TOTAL OF MORE THAN A HUNDRED TECHNICAL SOLUTIONS

For his contribution to the stable operation and development of the Caspian Pipeline Consortium in different years, Vasily Viktorovich was repeatedly awarded with certificates of honor and memorable gifts. In 2018, he was awarded the gratitude of the

the smooth operation of a group of mechanical engineers, he serves as an example to young specialists, passing on knowledge and accumulated experience to colleagues, and enjoys well-deserved respect in the team. With his participation, a stable team of professionals has been formed, the atmosphere in which is distinguished by initiative and hard work.

On February 14, 2025, the team of the CPC Marine Terminal saw Vasily Viktorovich off to a well-deserved rest – well-deserved by more than two decades of skilled and dedicated work, an active life position, and constant improvement: of himself, the team, and all oil transport mechanics, which are as complex as aviation mechanics. All of us – colleagues, friends, and learners – wish Vasily Viktorovich good health, inexhaustible energy, and success in every new endeavor!

AUTHOR
DMITRY KONSTANTINOV



CHIEF MECHANIC

2025 HAS BEEN DECLARED THE YEAR OF WORKING PROFESSIONS IN KAZAKHSTAN. CPC PANORAMA WILL PUBLISH MATERIALS ABOUT THE MOST COMPETENT, ACTIVE AND RESPECTED WORKERS OF THE EASTERN REGION IN EACH ISSUE, AND THE EDITORIAL BOARD BELIEVES THAT GABIDEN ERBULEKOV, SERVICE HEAD, MECHANICAL AND PROCESS EQUIPMENT OPERATIONS, STARTS THIS LIST QUITE DESERVEDLY. A SPECIALIST WITH EXTENSIVE EXPERIENCE IN PRODUCTION AND OIL TRANSPORTATION ENTERPRISES, AS WELL AS IN SPECIALIZED EQUIPMENT MANUFACTURING COMPANIES, HE KNOWS THE MECHANICS OF THE INDUSTRY FIRSTHAND

Kamyskul field in the Zhylyoi district of the Atyrau region for 10 years. At the joint venture Embavedyoil, he was initially a mechanical engineer, then chief mechanic.

In 2003, Gabiden Erbulekov transferred to KazTransOil JSC, where he worked for five years as a mechanical engineer in the chief mechanic's department. After that, he was a chief mechanic in a private drilling company. Then he worked for Flowserve, a company that produces main oil pumps. With his participation, the authorized Quick Response Centre was created in Atyrau, which is still operating today.

"In 2010, I moved to NCOC", says Gabiden Tursyngalievich. "I took part in commissioning of the Kashagan field equipment on the D".

Gabiden Erbulekov joined CPC in 2012 in the midst of the first phase of the Expansion Project. He started as a mechanical engineer, became a senior mechanical engineer in 2015, and a lead mechanical engineer in 2017. In December 2024, the regional CPC operation departments underwent another

stage of reorganization, and Gabiden Tursyngalievich, as chief mechanic, headed the new Mechanical and Process Equipment Operations Service.

"If previously we controlled and serviced main pumping units and all rotary equipment, including compressors and fans, then in the new position the area of responsibility has expanded", explains the chief mechanic. "The competence of our service includes turbines, tank farms of the Tengiz PS and Atyrau PS, treatment facilities, ventilation systems, heating, water supply, sewerage and fire-fighting systems. In general, everything that rotates at the facilities is all ours".

Gabiden Tursyngalievich has almost all the installation and commissioning works in the Eastern region within the framework of the Expansion Project and DBNP. His versatile experience, knowledge of the "hardware" and the authority of a competent manager formed during the years of work at KazTransOil JSC allows CPC-K mechanical engineers to effectively and harmoniously interact with the contractor on all maintenance and repair issues. The chief mechanic says that the high qualifications of the specialists allow them to disassemble and assemble any unit, if only there were drawings.



IN THE MAIN PUMPING STATION, 2020

GABIDEN TURSINGALIEVICH HAS ALMOST ALL THE INSTALLATION AND COMMISSIONING WORKS IN THE EASTERN REGION WITHIN THE FRAMEWORK OF THE EXPANSION PROJECT AND DBNP

As a manager and internal trainer, he regularly conducts training for his service personnel using a cascade scheme, that is, based on his own internships, local and foreign. It

is very effective: last summer, Erbulekov's subordinates took part in the CPC Safety Day in Almaty and the Safe Work Culture Leaders Summit in Elista. In December 2023, Gabiden Tursyngalievich was awarded in Moscow as the best internal trainer in the Eastern Region. Among his other awards are medals for the 10th anniversary of the independence of the Republic of Kazakhstan, for the 100th anniversary of the national oil and gas industry, for personal contribution to the implementation of the Expansion Project, for the 25th anniversary of the CPC.

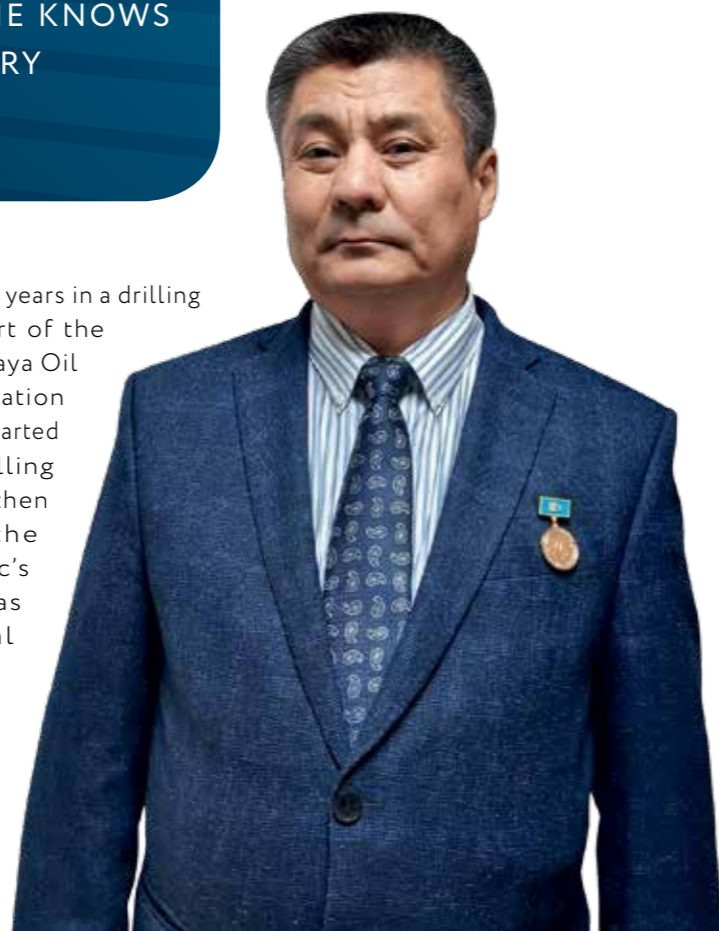
Candidate Master of Sports in boxing, Gabiden Tursyngalievich has been attending dance school for almost five years now. He says that his tango, waltz and salsa skills recently came in handy when he celebrated an 60th anniversary with his family and friends. ●

Gabiden Tursyngalievich was born in Atyrau (then still Guryev) on October 21, 1964. After school and technical school, in 1983 he entered the Ivano-Frankovsk Institute of Oil and Gas. From there he was drafted into the army, and spent two years of military service at the Plesetsk Cosmodrome in the Arkhangelsk Oblast.

In 1990, Gabiden Erbulekov graduated from the university with a degree in Machinery and Equipment for Oil and Gas Fields. He returned to his native land and

worked for three years in a drilling company as part of the North-Embinskaya Oil and Gas Exploration Expedition. He started as a senior drilling rig motorman, then moved to the chief mechanic's department as a mechanical engineer.

Since 1993, he has been extracting oil at the South



G.T. ERBULEKOV WITH HIS WIFE AND DAUGHTERS AT THE ANNIVERSARY CELEBRATION, 2024

AUTHOR
PAVEL KRETOV

AT THE JUNCTION STATION

SERGEY VLADIMIROVICH PEREPELTSITS, PROCESS INSTALLATION OPERATOR, CELEBRATED HIS ANNIVERSARY IN 2024. OVER SEVERAL DECADES OF HIS CAREER, HE HAD THE OPPORTUNITY TO WORK IN SEVERAL TYPES OF TRANSPORT – AVIATION, RAILWAY AND PIPELINE

Sergey was born in 1964 in the ancient city of Kokand in the Uzbek SSR. Since childhood, he dreamed of aviation and after school he entered the Yegoryevsk Aviation Technical School named after V. P. Chkalov. The school (now college) bears the name of the famous test pilot for

a reason: he studied here in the Moscow region in 1921-1923. The college's official website states that its graduates work throughout Russia and beyond, and in 1984 Sergey Perepelitsa was assigned to the airport of the polar village of Cape Kamenny, located on the Yamal Peninsula.

The village, which is part of the 10-kilometer coastal border zone, was founded as a base for the Polar Geophysical Expedition. Currently, a unique year-round stationary sea ice-resistant shipping terminal, "Arctic Gates", operates near Cape Kamenny. And in the village itself there is an acceptance point, where



S. V. PEREPELTSITS (IN THE MIDDLE) WITH FELLOW STUDENTS, 1984

hydrocarbons extracted on the ocean shelf are delivered from the terminal via two lines of an insulated underwater oil pipeline.

"Life in Yamal is remembered for its harsh climate", recalls Sergey Perepelitsa. "The average winter temperature was -35°C , and sometimes it drops to -56°C . Literally everything necessary for life is brought from the mainland during short navigation periods".

After 10 years of work in Yamal, he transferred to an engineering position at the Nyagan airport under construction in the Khanty-Mansiysk Autonomous Okrug. The young specialist was interested in the prospects for growth in a larger, dynamically developing city located on the mainland.

"When I arrived, the airport was still under construction", says Sergey Vladimirovich. "I took part in the construction of a fuel and lubricants warehouse for the airport, and then serviced these facilities".

Residents of Nyagan not only built the airport and felled timber. They also developed oil, gas, peat,

brick clay, and glass sand deposits. It was interesting here, but the life of a family man is determined not only by career growth. Not every child is suited to the stingy northern sun, and the "social unit" with a small daughter moved to a place where the climate is fine – to Kuban.

"My wife was born in the Krasnodar Krai. Kropotkin is her small homeland, which, of course, primarily determined the choice of our new place of residence", explains Sergey Perepelitsa.

The city of Kropotkin is known as a major railway hub in Kuban. The Kavkazskaya station was opened back in 1874. Therefore, it is not surprising that Sergey continued his work at the locomotive depot. The transition from aviation to the railway was not easy: he had to study



AT HIS ALMA MATER 40 YEARS LATER

IN 2017, THE LARGEST CPC OIL PUMPING STATION BECAME SERGEY PEREPELTSITS'S PLACE OF WORK

a lot on his own, read instructions at night. His persistence in improving his qualifications was rewarded with dignity.

"The first two years were especially difficult, but in four years, having started with a blue-collar job, I became a master of the wagon maintenance station", notes Sergey Vladimirovich.

In 2013, with experience in both aviation and railways, he joined the oil pipeline transportation industry. First, he joined STARSTROY LLC, a contractor that provides technical maintenance for the Caspian Pipeline Consortium's production facilities. In Kropotkin, the territorial division of STARSTROY services the PS of the same name. This largest station in the CPC system became the place of work for Sergey Perepelitsa. The CPC Pipeline System Capacity Expansion

Project was just being finalized. As part of the project, the PS received a pressure mitigating system, three gas turbine main pumping units, one booster pumping unit, a fire station, a fourth line of the LACT, and two SVFRT-50000.

"Under the supervision of CPC specialists, we took part in the commissioning of new equipment, in particular, main pumps", recalls Sergey Perepelitsa.

In 2017, he was accepted into the operational staff of the Kropotkinskaya PS, becoming an operator of the CPC process units.

"It is a pleasure to work in such a wonderful team", the hero of the day admits. "I have developed excellent professional and human relationships with colleagues, and not only at the Kropotkinskaya PS, but also at neighboring stations".



AUTHOR
PAVEL KRETOV

AT THE CALL OF THE HEART

IN THE SECOND HALF OF DECEMBER 2024, EMPLOYEES OF CPC AND STARSTROY LLC TOOK PART IN THE LIQUIDATION OF THE CONSEQUENCES OF THE EMERGENCY SITUATION NEAR ANAPA. A SIGNIFICANT GROUP OF PEOPLE AND EQUIPMENT WAS SENT AT THE DISPOSAL OF EMERCOM HEADQUARTERS

On December 15, 2024, the tankers Volgoneft-212 and Volgoneft-239 sank in the Kerch Strait. The ships were carrying 9.2 thousand tons of fuel oil. During a direct line on December 19, Russian President Vladimir Putin called the accident in the Black Sea an environmental disaster. He said that about 40% of the fuel had spilled into the water area. The fuel oil spill polluted 54 km of coastline in the Krasnodar

Krai. According to the EMERCOM of Russia, 44 km of this amounted to the coast of Anapa, and another 10 km to the Temryuksky District. The environmental damage was significant: the fuel oil spill polluted sandy and rocky beaches, and their cleanup required significant technical and human resources.

On December 17, a state of emergency was declared in Anapa and four settlements

of the Temryuksky district. On the same day, CPC provided the emergency headquarters of the Ministry of Emergency Situations with 3 dump trucks, 1 excavator, 2 buses and 28 specialists from the general maintenance contractor STARSTROY LLC to the emergency deployed headquarters of the EMERCOM. Work to clean up the coastal area from fuel oil pollution was started with the direct participation of CPC General



Director Nikolay Gorban, who was on a working trip to Krasnodar Krai.

"We could not but respond to this call for help. This is our country, our sea, our beaches, and we all want them to be clean", said CPC General Director Nikolay Gorban in an interview with the corporate publication.

Following the meeting held on December 18 under the leadership of the Minister of Civil Defense and Emergencies of the Krasnodar Krai Sergey Shtrikov with the participation of representatives of CPC-R JSC, NMPT PJSC, Chernomortansneft JSC, the available forces and resources were distributed among the polluted coastline areas. A site in the area of the village of Blagoveshchenskaya was allocated for the CPC special equipment and specialists.

"An analysis of the situation on our section of the beach showed that the thickest layer of fuel oil was here and that more heavy equipment would be needed to



"THIS IS OUR COUNTRY, OUR SEA,
OUR BEACHES, AND WE ALL WANT THEM
TO BE CLEAN"





clean it up effectively”, says Vladimir Kalinichenko, Chief Maintenance Manager of STARSTROY LLC. “The group was increased to nine units, now including three dump trucks, three excavator-loaders, two buses, and a shift bus where they could warm up during rest periods. The issues of accommodating workers in Anapa hotels and providing them with food were also promptly resolved”.

At the first stage of the work, the most important task was to separate the contaminated sand from the water’s edge. This operation was carried out mechanically – with the help of excavators. Then people used shovels to form sand piles for further packing into construction bags, which, in turn, excavator operators loaded into dump trucks. The contaminated soil was taken away for further cleaning to several specialized landfills, the farthest of which was in Sauk-Dere.

“The coordinates of the landfills were given to us by representatives of the EMERCOM”, Vladimir Kalinichenko continues. “There the vehicles were weighed twice: first with soil, then empty. This is how they determined how many

tons of contaminated sand were removed from near Anapa”.

During the period from December 19 to 20, 75 m³ of fuel oil and sand mixture were collected and removed for disposal. The teams of CPC-R and Chernomortransneft jointly cleaned 1.5 km of the coastline 43 m wide from the water’s edge. Gratitude for the prompt and rapid response to the situation was expressed to CPC General Director Nikolay Gorban by Deputy Head of the Secretariat of the Vice Prime Minister of the Russian Federation Dzhambulat Khatuov, Vice Governor of Kuban Alexander Nesterenko and Vice Mayor of Anapa Alexander Anfilatov, who were on an inspection tour of the volunteer units deployed in the emergency response area.

“We collected not only fuel oil from the beaches, but also birds that had suffered from pollution”, says Ivan Donskikh, foreman of STARSTROY. “They were immediately handed over to volunteers who provided further assistance to the birds”.

The teams worked all day long, from eight in the morning until five in the evening. Walking half a kilometer and collecting an average of 130 tons of contaminated sand

in construction bags per day, they picked up a high pace, but no one rushed anyone: a person with a “strained” back is of little use in such a task, and everyone measured their work with their personal physical condition. During the entire operation to clean up the fuel oil, no injuries or incidents were noted. All work was carried out in strict compliance with labor protection requirements. Regular monitoring of the air environment with a gas analyzer was carried out.

“All of us live within 100 km radius from here and we used to have a rest with our families on these beaches”, says Dmitry Kizilbashev, leading specialist in organizing technical maintenance of the linear part and emergency recovery work at STARSTROY LLC. That is why everyone here works not on orders, but at the call of their hearts”.

A week after CPC’s first landing near Anapa, the group engaged in cleaning up fuel oil from the coast was reinforced by regular units of the Marine Terminal. About 40 additional specialists arrived in the work area. With the arrival of the additional personnel, the pace of cleaning works increased to one kilometer per day.

“We worked side by side with volunteers, and with Chernomortransneft pipeliners, and with Novorossiysk port workers”, comments Alexey Sitnik, Deputy Regional Division Head, Marine Operations, CPC Marine Terminal. “From the first day of detecting pollution on the Bugaz Spit, near the village of Blagoveshchenskaya, employees of the contractor Transneft-Service ERT carried out work to clean the sandy beaches of this landmark of the Black Sea coast. Without in any way diminishing the contribution of numerous volunteers, who also arrived in the emergency zone at the call of their hearts, I would like to note that the preparedness and equipment of specialists from fuel and energy companies, including ours, stood out from the general background”.

On the beaches near Anapa, teams of industrial enterprises not only moved together from the epicenter of pollution to its outskirts, but also helped each other with organizational issues



and in equipment repairs carried out directly on the beach, as well as in the delivery of personnel, especially when repeated emissions of fuel oil occurred after the storms and the work front increased to 5 km. In the first ten days of January 2025, the main volumes

of oil products that required the use of heavy equipment and specialized teams were collected and the companies were able to demobilize their resources. According to experts, a complete cleanup of the territories will take about two to three months. ●



AUTHOR
LEV GUZIKOV

ANNIVERSARY OF THE OIL GIANT

IN DECEMBER 2024, KAZAKHSTAN
CELEBRATED THE 45TH ANNIVERSARY
OF THE DISCOVERY OF THE UNIQUE
TENGIZ OIL FIELD, WHICH MADE THE
REPUBLIC ONE OF THE WORLD LEADERS
IN HYDROCARBON RESERVES

in the subsalt deposits. But at that time it was not possible to test this hypothesis due to the low power and imperfection of drilling equipment, and drilling of the first wells in the subsalt horizon began only in the 1950s.

The first signs of oil and gas potential in subsalt deposits within the southeastern edge of the Caspian Basin were noticed during exploration work on the Tazhigali and Pustynnaya structures in 1973–1974, which subsequently served as an impetus for the need to probe the area now known to the world as Tengiz.

Drilling of the first well on the Tengiz subsalt uplift with a design depth of 5,500 m began on June 26, 1976. Three years later, a team from the Volgograd Drilling Department uncovered subsalt sediments, and on December 18, 1979, a special group from the Embaneft production association, together with the team, conducted a 10-minute well test. This date is officially considered the birthday of the Tengiz field.

Well No. 1 had to be temporarily suspended, since the discovered oil not only lay in depths with abnormally high reservoir pressure, but was also accompanied by the release of associated gas with a high content of hydrogen sulfide. This required additional well testing using special equipment, which was not produced in the USSR at that time. Later, the necessary equipment was purchased by the specialized ministry in Canada, and well No.1 was fully tested in July-August 1981. It was then that it became known for sure that a unique oil and gas field had been discovered, which had no analogues in the world, which gave impetus to the development of large-scale exploratory drilling over a huge area.

In Kazakh, the word "tengiz" means "sea", and this name was proposed at one of the meetings at Embaneft in the fall of 1975 by the chief geologist Zholdoskali Dosmukhambetov as a sign that the dreams and aspirations of all oil workers would come true – to find

a "sea of oil" here. And as time has shown, he was not mistaken about the scale of the future field.

Many things at Tengiz were for the first time. For the first time, mass training of specialists was organized on the nature of the Tengiz formation, prevention and localization of possible fountains. More attention was paid to health protection, in particular in connection with the impact of hydrogen sulfide. For the first time, large supplies of drilling tools, equipment, devices and materials in anti-corrosion design from leading companies in the world began. For the first time, they studied the advanced equipment, technology and methods of drilling deep, complex wells and much more.

The construction of the first oil and gas processing plant CTL-1 began in 1986. In addition to Soviet institutes, the Lurgi company from Germany participated in the design, the Canadian company Lavalin and the French company Litvin were involved in the development of automated control systems for the plant and the field, and the contract for the



CHEVRON EXECUTIVES VISITING THE TENGIZ FIELD, SUMMER 1992

TODAY, TENGIZ IS THE LEADER IN
KAZAKHSTAN IN TERMS OF OIL
PRODUCTION AND INVESTMENT IN THE
NATIONAL ECONOMY

construction of the enterprise was received by the Hungarian company Vedyepser. The historic launch of the plant, capable of purifying oil from mercaptans and hydrogen sulfide, took place on April 6, 1991, marking the beginning of industrial oil production.

The huge reserves of the Tengiz field required an increase in oil production, but to do this it was necessary to expand the plant's production capacity and build several more CTLs (complex technological lines). Of course, this required billions of dollars, which Kazakhstan, which had become an independent state by that time, did not have. Therefore, on April 6, 1993, as a result of negotiations with the American corporation Chevron, an agreement was signed and the Kazakh-American joint venture Tengizchevroil was created. A new page in the history of the field's development was opened.

Today, Tengiz is the leader in Kazakhstan in terms of oil production, as well as in terms of investments in the national economy and the rate of improvement of the social welfare of the region's residents. The priceless underground storehouses of black gold discovered at the turn of the epochs became the backbone for the republic's bold economic reforms, defining the contours of its industrial and social progress for decades to come.

On January 25, 2025, Tengizchevroil LLP announced that it had reached a significant milestone at its Future Growth Project (FGP), by safely initiating production of crude oil at its new Third-Generation Plant (3GP) at the Tengiz oilfield. Taking into account 3GP work, the total volume of crude oil production at Tengiz is expected to reach about 40 million tons per year.



BRIEFING DRILLERS' WATCH. TENGIZ, 1983



TENGIZ, OIL WELL №23

AUTHOR
DMITRY KONSTANTINOV

THE FUSS OVER THE CANAL

ABOUT 10% OF THE WORLD'S TRADE TRAFFIC, \$10 BILLION IN ANNUAL NATIONAL INCOME, BRILLIANT IDEAS AND TALENTED ADVENTURES. THE 190-KILOMETER SUEZ CANAL CELEBRATED 155 YEARS SINCE ITS OFFICIAL OPENING IN 2024

The ancient Egyptians were known not only for building pyramids, but also for traveling. Commercial expeditions to the countries of Byblos and Punt were widespread even in the era of the Old Kingdom, that is, 2700–2100 BC.

If Byblos was located somewhere in the area of modern Lebanon, and it was relatively easy to reach, then Somalia or Yemen

were considered to be Punt, and it was necessary to sail around Africa (three years) or through the Red Sea. There was no water communication with it from the Mediterranean Sea, only the dried-up beds of ancient rivers – wadis. It was along them that caravans of travelers initially reached the coast and there they assembled ships from the parts they brought with them.

Aristotle's works (Meteorology, Book I, Chapter XIV) mention an attempt by one of the Egyptian pharaohs to solve the problem of navigation between the Mediterranean and Red Seas:

"One of the kings tried to connect [the sea with the Nile] by a canal. (Much profit could be derived, of course, by shipping across this entire area. They say that Sesostris was the first of the ancients to

undertake this task.) But it turned out that the sea [was] higher than the land, so first Sesostris and then Darius stopped digging, fearing to spoil the river water by mixing it with the sea".

In the second volume of his "Histories" (440 BC), Herodotus reports: "Psamtik had a son, Necho (Pharaoh Necho II, who reigned in the 7th-6th centuries BC – ed.), who became the king of Egypt after him. He was the first to begin building a canal leading to the Red Sea, which was then continued by the Persian king Darius".

In 525 BC, Egypt was conquered by the Persian king Cambyses II, son of Cyrus the Great. Darius I, who became the head of the Achaemenid Empire three years later, gathered architects in 510 BC and tasked them with restoring the Necho II Canal in Egypt, which by that time had already dried up and silted up. The king arrived in person for the opening of the canal and, in a ceremonial atmosphere, launched 24 ships from Egypt to Persia.

In 332 BC, Egypt became part of the empire of Alexander the Great. In 323 BC, Alexander the Great died in Babylon, and his Diadochi generals began to divide the empire. Egypt went to Ptolemy I Soter. His son Ptolemy II Philadelphus in 277 BC restored navigation along the "Pharaohs' Canal" by building a sluice to reduce the salinization and silting of the Nile water.

The last of the Ptolemies dynasty was Cleopatra, under whom the Pelusium branch of the Nile began to dry up. Other events in the otherwise turbulent first century BC included a series of murders and suicides of the leading figures of the Roman Empire and Egypt, and then, in 30 BC, the incorporation of the latter into the former as a province.

In 108, the Roman Emperor Marcus Ulpius Nerva Trajan widened the Pharaohs' Canal to 45 m and deepened it to 5 m. In 640, Egypt was conquered by the Arab Caliphate and

two years later, wheat exports from Egypt to Arabia were established along the Trajan River, renamed the "Canal of the Commander of the Faithful". In 767, the Caliph Abu Jafar al-Mansur ordered the canal filled in to redirect trade routes to Baghdad, which he founded.

GEOLOGIC AND HYDROPOLICY
In his book Campaigns in Egypt and Syria, Napoleon Bonaparte dates the inspection of the remains of the "Pharaohs' Canal" in the vicinity of Suez to December 30, 1798:

"The remains of the canal of two seas are clearly visible. Its banks are located at a distance of 25 toises (48.5 m – ed.) apart. A rider in the middle of the canal is completely hidden and invisible".

Interested in reviving the Canal of the Two Seas, Napoleon commissioned a geodetic survey of the area to engineer Jacques-Marie Le Père. According to this study, the water level in the Red Sea was 9 m higher than in the Mediterranean, and the new canal would require locks. The scientific community, led by Pierre-Simon Laplace, immediately doubted the results of Le Père's research, proving mathematically that the level of seas with access

to the World Ocean is the same everywhere.

the desert" proposed by Enfantin, but in exchange he offered the Frenchman to convert to Islam and go into his service.

In 1831–1837, Viscount Ferdinand Marie de Lesseps served as the French consul in Alexandria. Muhammad Ali Pasha once asked this grandson of the French ambassador to St. Petersburg to train his son Said in physical education, in particular, horse riding. The young men became friends during their training.

In 1846, Barthélemy Enfantin founded the "Society for the Study of the Suez Canal", which included, in addition to himself, the French engineer Paulin Talabot, the German banker Dufour-Feronce, the inspector of the railway of His Majesty the Emperor of Austria, the Genoese Alois Negrelli, the builder and son of the inventor of the steam locomotive, the British Robert Stephenson, as well as a number of other authoritative businessmen and technical experts. The following year, having collected 150 thousand francs, the members of the Society went to Egypt to conduct a geodetic survey of the area.

Research has confirmed that there is no difference in water level between the Mediterranean

TANKERS CARRYING OIL OR OIL PRODUCTS ACCOUNT FOR

70% OF TRAFFIC THROUGH THE SUEZ CANAL

to the World Ocean is the same everywhere.

The idea of building the Suez Canal was actively promoted by the utopian socialist Barthélemy Prosper Enfantin. A student of Henri de Saint-Simon, who had earlier conceived and defended the idea of the Panama Canal, Enfantin came to Egypt in 1833, when power there already belonged to Muhammad Ali Pasha, who had become the wali (viceroy) of the Ottoman Empire. Muhammad Ali became familiar with the concept of "Bosporus in

and Red Seas, and if you dig not towards the Nile, but in a straight line, you can profitably use the natural lowlands and cut the route by 20 km. In a relatively short period of time, three canal projects were presented to the Khedive – from Negrelli, Talabot and Egyptian Transport Minister de Bellefon Bey.

In March 1848, Muhammad Pasha resigned as Khedive due to cataracts (he died in August 1849), and in November, his adopted son, successor and co-ruler since 1844, Ibrahim Pasha, passed away. The





Wikimedia Commons

THE SEA MAP OF THE SUEZ CANAL, PUBLISHED SHORTLY AFTER THE OPENING

members of the Suez Canal Research Society showed their projects to the next wali, Abbas Pasha.

In 1849, Lesseps retired from the diplomatic service and was out of work for some time, not forgetting to leaf through the newspapers. From them he learned of the death of Abbas Pasha in Egypt on July 13, 1854 and the rise to power of his “disciple” Muhammad Said Pasha.

The new wali of Egypt cordially received his old friend and showed him the highest honors. Having spoken with the Khedive about the existing projects of the Suez Canal, Lesseps met with understanding. In December 1854, Muhammad Said Pasha officially announced the decision to support the construction of the Suez Canal. In 1855, the Turkish Sultan Abdülmecid I solidified this plan with his decree-firman. In the same year, Lesseps created the joint-stock company “General Company of the Suez Canal”, which received a concession from Egypt for the construction and operation of the new waterway for a period of 99 years.

The cost of construction is estimated by auditors at 200 million francs, and the General Company of the Suez Canal issues 400 thousand

shares worth 500 francs each. 44% of the shares are purchased by Mohammed Said Pasha, and he also promises to provide 80% of the workforce. 53% of the company’s shares belong to the French government.

Construction work began in April 1859. Only 2,000 specialists needed wages, the remaining 60,000 Egyptian fellahin peasants worked for food.

Until Said Pasha’s death in 1863, the canal’s construction was mostly manual labor. The Wali’s successor and nephew, Ismail Pasha, renegotiated the terms of the contract through international arbitration, and now the workers had to be paid. After calculating the possible costs, Lesseps brought several steam dredgers and coal excavators to the construction site.

The ceremonial opening of the Suez Canal took place on November 17, 1869. Accompanied by fireworks and artillery salutes, the ships of the reigning houses of Europe solemnly entered the new canal. The Russian delegation was headed by Grand Duke Mikhail, along with the marine artist Ivan Aivazovsky, the writer Fyodor Sologub and the poet Fyodor Tyutchev.

GUNS, MONEY AND REVOLUTIONARIES

The Suez Canal, which reduced the journey from Europe to the Indian Ocean by 8,000 km and by 50% of fuel, was 173 km long in the 19th century (9.2 km of the Mediterranean fairway, 161 km on the mainland and about 3 km of the fairway in the Gulf of Suez), 120 m wide along the banks and 40 m along the bottom, and had a depth of 7 m. At all times, pilotage was necessary along the canal.

The 475-million-franc construction project paid off by the mid-1870s, at which time Ismail Pasha was forced to sell his stake in the Suez Canal to the British government.

The weakening of France after the Franco-Prussian War of 1870-1871 allowed the British to establish

virtually 100 percent control over the Suez Canal. In 1888, the International Convention was signed in Constantinople, according to which the Suez Canal was allowed to be used by commercial and military vessels of all countries in peacetime and wartime. The Convention prohibited blocking the canal in any situation.

Permission for oil tankers to pass through the Suez Canal was granted in 1892. On August 23, 1892, the tanker Murex safely passed Suez with a cargo of kerosene loaded in Batumi. The project to create a new generation of oil tankers that meet the safety requirements for passage through the Suez Canal was financed by the British entrepreneur and Lord Mayor of London Marcus Samuel, 1st Viscount Bearsted, who concluded a nine-year deal with the Rothschilds to transport oil and oil products of Caspian origin to the East.

In 1897, Marcus Samuel and his brother Samuel Samuel founded The “Shell” Transport and Trading Company. The “shell” logo was chosen in memory of their father, who traded in antiques, including boxes decorated with mother-of-pearl sea shells. At first, the company was engaged exclusively in tanker transportation of Caspian oil and oil products to the Far East and the Asia-Pacific region. Then the Samuel brothers decided to extract oil themselves in Borneo and Texas, and in 1907 they merged with the Royal Dutch oil company, created in 1890 with the support of the King of the Netherlands, Willem III.

During World War I, Germany and Turkey, being allies, tried to take control of the Suez Canal. In January 1915, a 20,000-strong Turkish corps captured the Sinai Peninsula and tried to force the canal with two divisions for the purpose of further offensive. The British army, reinforced by the fleet and fresh reserves from India and Australia, gave the Turks a powerful rebuff,

and, having lost 1,500 people against 22 British killed, the conquerors retreated.

In September 1940, Mussolini decided to take control of the canal. 150,000 soldiers, 1,600 guns, 600 tanks and 330 aircraft under the command of Marshal Rodolfo Graziani were defeated and driven out of Egypt by British troops by January 1941 during Operation Compass. From February 1941 to October 1942, the Suez Canal was stormed by the «fox of the desert» Erwin Rommel – also unsuccessfully.

On July 23, 1952, the Association of Free Officers, led by Colonel Gamal Abdel Nasser, abolished the monarchy in Egypt. A year later, the country was proclaimed a republic. In 1954, Nasser became president.

In 1956, British troops were withdrawn from Egypt and the Suez Canal was nationalized. On October 22, 1956, the British, French and Israelis signed a secret pact in Sèvres on a military operation. The “week-long war” began on October 29 and ended with a truce on November 6. On November 15, UN peacekeeping units were deployed in the troubled region. One of the tasks assigned to the “blue helmets” was to restore the neutral status of the Suez Canal, since during the conflict, on Nasser’s orders, this route was blocked by the sinking of 47 ships. Communication through the canal was resumed on April 24, 1957.

During the canal’s downtime, a global oil crisis occurs. The price of a barrel jumps from two dollars to four, and Europe begins to design more fuel-efficient front-wheel-drive cars.

On May 14, 1967, the situation around the canal escalates again. Egypt announces the mobilization of armed forces in the area and demands the withdrawal of UN peacekeepers from the country. The Blue Helmets leave, the Six-Day War begins, the canal is mined and closed to shipping. This Arab-Israeli conflict is followed by the Yom Kippur War of 1973, and for

eight years the Suez Canal, which has become a front line, is not operational.

EXPORT, IMPORT, RECONSTRUCTION... AND REVOLUTIONARIES AGAIN

The toll for commercial ships passing through the canal, set by the Suez Company nationalized by Nasser in 1957, was 34 Egyptian piastres (0.34 Egyptian pounds, or 0.78 dollars) per ton of cargo. In half a century, the cost of transit has increased by about 10 times.

The Suez Canal was regularly deepened: from the original 7 to 14 m in 1956, 15.5 m in 1962, 19.5 m in 1980 and 24 m in 2010. The canal was also widened from the original 120–130 to 300–365 m. The average transit time through the canal was 14 hours, with ships going one-way, “passing” on the lakes.

In August 2014, construction began on a 72 km parallel canal to ensure two-way ship traffic. On August 6, 2015, the “doubler” was ceremoniously opened by Egyptian President Abdel Fattah El-Sisi. Traffic capacity increased from 48 to 100 ships per day, and the income from the canal (the most important for the country), accordingly, approached 10 billion US dollars annually, and in 2023 it will amount to 13 billion.

It was already recorded in the last century that tankers with oil or oil products account for 70% of traffic through the Suez Canal. If the 120-meter Murex was designed according to 19th century standards, then with the doubling of the canal’s depth in 1956, naval architects were tasked with making a tanker capable of transporting the maximum volume of cargo along this route. The first Suezmax-class tanker was considered to be the 300-meter Torrey Canyon, built in 1959 in the United States and upgraded in Japan to a lifting capacity of 120 thousand tons. Today, the parameters of the Suezmaxes are already up to 166 thousand tons of deadweight, up to 400 m in

length, 50 m in width, 68 m in height (in order to bypass the bridge) and 20 m of draft.

Since 2022, the toll has been growing significantly: the canal administration has introduced an additional 15% duty on tankers with oil products. The cost of transit has increased by another 15% in 2023 for tankers and by 10% for dry cargo ships and tourist vessels. In 2024, the increase was the same. Today, the fee for a Suezmax tanker is about \$ 1 million.

In October 2023, the Houthis, based in northern Yemen, made adjustments to the Suez Canal Authority’s flexible pricing policy. In this situation, a number of commercial fleets switched to the less dangerous route around Africa. By the summer of 2024, traffic through the Suez Canal had fallen by about half. On September 29, 2024, President Abdel Fattah El-Sisi said that Egypt’s losses due to the situation in the Red Sea and the resulting decrease in shipping activity in the Suez Canal amounted to more than \$6 billion.

Israel periodically announces the start of construction of the 300-kilometer Ben-Gurion Canal, an alternative to Suez. Such an announcement was made in 2024, and before that in 2021. The project itself and even the canal’s route were developed by the Americans in 1963, hot on the heels of the Cuban Missile Crisis. To save time, it was proposed to blow up rocky soils with nuclear bombs in quantities of more than five hundred.

Connecting seas and accelerating trade canals play an important role in the development of civilization. And, as the history of this civilization shows, hustle and bustle of humanity passes, but the canals remain. ●

Full text
on the website:



AUTHOR
DMITRY KONSTANTINOV

PATH TO THE STARS

THE BRIGHT GALA CONCERT, WHICH CONCLUDED THE XXVI INTERNATIONAL FESTIVAL-COMPETITION “CPC FOR TALENTED CHILDREN”, WAS HELD FOR THE SECOND TIME AT THE MOSCOW STATE ACADEMIC THEATRE “RUSSIAN SONG” AND GATHERED A FULL HALL

In 2024, the young talent competition, which CPC holds annually in the regions where it operates, set another record, bringing together over 20 thousand participants in the first correspondence round. 4,565 video applications were received from solo performers and creative groups. The Krasnodar Krai was the leader in the number of works sent to the contest: 1,828 applications, including 756 from Novorossiysk. Young talents

from Stavropol Krai submitted 1,338 applications. Astrakhan Oblast sent 983 applications, and the Republic of Kalmykia – 433. Seven competition nominations: choreography, instrumental performance, vocals, choir, theater, social video and pedagogical workshop – provided an opportunity to prepare a performance in one of 30 different directions. For the second round, the jury selected 2,502 applications – 10% more than in 2023.

The third in-person stage of the international competition of children’s and youth creativity “CPC for Talented Children” started on September 16, 2024. Master classes from experts – outstanding artists and teachers, honored masters of culture and art – were organized in the capitals of the regions where the competition is held. The educational program also included professional development seminars for teachers.

The regional gala concert in Astrakhan took place on September 19, with 120 young performers taking part. In the region, 10 people became Grand Prix winners, 136 became first-degree laureates, 182 became second-degree laureates, and 170 became third-degree laureates.

“CPC for Talented Children” competition lights up new stars and helps participants take their first steps on the professional stage”, said Igor Babushkin, Governor of the Astrakhan Oblast, in an interview with the Rossiya 1. Stavropol TV channel. “I am proud that this year 39 young contestants from the Astrakhan Oblast

are performing at the gala concert in Moscow. I thank the children, their parents and teachers for glorifying their native land, the beauty and originality of our cultural traditions”.

On September 24, a gala concert was held in Elista. In the Republic of Kalmykia, young contestants received 4 Grand Prix, 45 participants became first-degree laureates, 108 became second-degree laureates, and 92 became third-degree laureates.

On September 27, the winners of the third competition round took to the stage of the Palace of Children’s Creativity in Stavropol. Here, following the results of the third round, nine participants received the Grand Prix, 167 became first-degree laureates, 253 became second-degree laureates, and 258 became third-degree laureates.

On October 2, a gala concert was held at the Marine Cultural Center of Novorossiysk. In the hero city, 10 participants received the Grand Prix, 120 became first-degree laureates, 171 became second-degree laureates, and 113 became third-degree laureates.

On October 7, a gala concert was held in Krasnodar. Contestants from Kuban received 10 Grand Prix in the

ГАЛА-КОНЦЕРТ ПОБЕДИТЕЛЕЙ
МЕЖДУНАРОДНОГО КОНКУРСА ДЕТСКОГО И ЮНОШЕСКОГО
ТВОРЧЕСТВА «КТК-ТАЛАНТЛИВЫМ ДЕТЯМ 2024»
**ЗВЕЗДНЫЙ МОСТ.
ПУТЬ К РАВНОВЕСИЮ**
2 ДЕКАБРА 2024 18.30

МГК «РУССКАЯ ПЕСНЯ»
РЕЖИССЕРЫ: А. С. СЕВЕРОВ, А. С. СЕВЕРОВ
ДИРЕКТОР: А. С. СЕВЕРОВ
ДИРЕКТОР: А. С. СЕВЕРОВ





third round, 166 participants became first-degree laureates, 258 – second-degree laureates, 223 – third-degree laureates.

Traditionally, the final stage of the festival was the cultural unifying forum “Moscow Meets Friends”. In 2024, the Forum was held from November 29 to December 3. Winners and laureates of the regional stages of the competition from the Astrakhan Oblast, the Republic of Kalmykia, Stavropol Krai and Krasnodar Krai, more than 180 people in total, came to Moscow. In the Russian capital, they were joined by over 30 finalists of the Jas Tolqyn (New Wave) competition, which is held annually in the Atyrau, West Kazakhstan, Aktobe and Mangistau Regions of the Republic of Kazakhstan.

Young guests of the Forum took part in excursions around Moscow, master classes by teachers from Moscow universities, and creative meetings with famous artists. The final gala concert, which took place on December 2 on the stage of the Moscow State Academic Theater “Russian Song”, included 31 performances by the winners and laureates of the competition, united by a common storyline.

The participants of the competition were greeted by the CPC General Director Nikolay Gorban, the Governor of the Astrakhan Oblast Igor Babushkin, the Chairman of the Government of the Republic of Kalmykia Gilyana



Boskhomdzheva, the head of the Moscow State Academic Theatre “Russian Song”, People’s Artist of Russia Nadezhda Babkina.

“CPC – for talented children» is a festival of talents, a festival of friendship”, noted in an interview with the Rossiya 1. Stavropol TV channel the Chairperson of the Government of the Republic of Kalmykia, Gilyana Boskhomdzheva. “Participation in the competition gives children the opportunity to show their talent, creative potential. And here in Moscow, on one of the leading stage venues, this talent is revealed from a new side, plays with new facets”.



The bright theatrical show “Star Bridge: The Path to Balance” featured both finalists and experts of the competition – professional artists and musicians. The performances of young talents were accompanied by a chamber orchestra, in which the finalist of the 2023 competition, guitarist from Stavropol Igor Semenov, took part for the first time. Traditionally, the concert program was focused on both the classical repertoire and the diversity of cultural traditions that are rich in the regions where the



THE FINAL GALA CONCERT INCLUDED 31 PERFORMANCES BY THE LAUREATES AND WINNERS OF THE COMPETITION, UNITED BY A COMMON STORYLINE

CPC main oil pipeline runs. The use of advanced stage technologies, the diversity and depth of the scenery, the script with a carefully verified balance of the storyline and festival numbers integrated into it attracted attention.

“The Russian Song Theatre always cordially opens its doors to festivals and competitions dedicated to children’s and youth creativity. I myself took part in them during my school years and won prizes. And I understand perfectly well what importance such events play in a child’s life”, – emphasized in her greeting the artistic director of the Moscow State Academic Theatre “Russian Song”, People’s Artist of Russia Nadezhda Babkina. “I would like to sincerely thank the organizers of the international competition-festival “CPC for Talented Children” for their dedication and concern for the younger generation. Let our children grow up with love for their homeland. With knowledge of their history and traditions. With an understanding of whose land we are natives of”.

At the end of the concert, Advisor to the President of Transneft PJSC, Honored Artist of Russia Alexey Gornizov presented the winners with special prizes from the leading shareholder of CPC – copies of the book “Russian Pantheon. Benefit, Honor and Glory” with a dedication from the President of Transneft Nikolay Tokarev. The book was published as part of the company’s historical and educational project and includes articles about people who contributed to the development of Russia.

“Children are our greatest treasure, our future, the future of our country”, Nikolay Gorban, General Director of the Consortium, noted in an interview with a correspondent of the Rossiya 1. Stavropol TV channel. “Each child is talented in his own way, and we try to help them to reveal their talent to the maximum, find his place in creativity, and in addition to this, develop in himself diligence and determination, all those skills that will be useful to everyone later in life. This is the goal of the “CPC for Talented Children” competition. ●

AUTHOR
DMITRY KONSTANTINOV

FASHION, OIL AND MEDICINE

THE HEALING PROPERTIES OF CRUDE OIL HAVE BEEN KNOWN FOR A LONG TIME, AND IF HALF A CENTURY AGO THEY DEFENDED THESE ON THEM, TODAY SUCH METHODS ARE FOR SOME REASON CONSIDERED UNSCIENTIFIC. THE TRUTH, AS ALWAYS, IS SOMEWHERE NEARBY, BUT ITS PERCEPTION IS CYCLICAL, JUST LIKE ALL FASHION TRENDS AND STYLES

Labor protection and safety regulations apply to every industrial facility, and offices are no exception. Although you don't need to wear a helmet here, it is important to consider other risk factors: electrical appliances, slippery floors, and much more. There are

also cases of industrial injuries for office workers. Much is said about the deterioration of vision due to excessive use of a computer, and much less about foot injuries from improperly selected shoes.

Those who believe that the office dress code recommends wearing shoes with a narrow, pointed toe

only are mistaken: this is not prescribed in any rules. It's just that fashionable brogues, oxfords and kitten heels look more elegant due to their triangular, narrow toes, and at the same time, all brands that produce office clothes complement their showrooms with such shoe models. It is also believed

that it is much more comfortable to walk around the office and sit at your desk in shoes with soles made of genuine leather: it looks stylish, respectable, and comfort is increased due to improved air exchange.

Unfortunately, the combination of wearing shoes with a narrow toe and thin soles for a long time with age and hereditary predisposition can lead to the so-called valgus foot deformity (Hallux Valgus). There are three stages of this deformity: the first two are treated therapeutically and orthopedically, the third (in which pain occurs, since the protruding bone of the big toe joint pulls the skin) sooner or later requires surgery – chevron osteotomy. The deformed joint is sawed under general anesthesia and re-fused with the installation of fixators. Recovery of the ability to walk lasts from two months to six months.

Patients diagnosed with Hallux Valgus, among whom statistically women are in the lead, form a significant and constantly updated segment of the production line of orthopedic factories – from orthoses to specialized shoes. Surgeons and manufacturers of the corresponding implants and fixators also have no time to get bored. There is no official alternative for the treatment or prevention of Hallux Valgus, and unofficially it is believed that oil or one of its derivatives – ozokerite – can help.

The further medicine develops, the more diverse, often sharply competing, directions and methods it has. Of course, officially accepted directions (traumatology, surgery and orthopedics are no exception here) unanimously declare the methods of all newcomers-alternatives to be unscientific, quackery and generally not medical. Although oil treatment can hardly be called a newcomer, since it has been known since ancient times, if not earlier.



BATH BUILDING OF THE BALNEOLOGICAL RESORT, NAFTALAN, AZERBAIJAN SSR. 1967

Mikrychyan's E./TASS

OIL TREATMENT CAN HARDLY BE CALLED A NEWCOMER, SINCE IT HAS BEEN KNOWN SINCE ANCIENT TIMES, IF NOT EARLIER

DIVING INTO STERANES

We will not waste time mentioning dozens of names of medicines (aspirin, streptocide, chloroform, antibiotics, antiseptics and others) made from oil by chemical processing. Suffice it to say that one of the most effective remedies for burns today – Indian Burn Heal – is made from benzene, which in turn is obtained from crude oil. Let's focus on the healing properties of black gold itself.

The ancient Greek physician Hippocrates, who lived in the 1st century BC, left behind a number of recipes for medicines obtained by mixing "mountain oil" (as petroleum was then called) with wine, lard, sulfur and other ingredients. For example, by adding petroleum to barley flour, one could make a plaster to stop bleeding.

Oil for the treatment of burns, ulcers, poisoning and stomach disorders was collected by Africans in the Niger Delta and North American Indians in what is now Pennsylvania. In Russia, at the

time of Tsar Alexei Mikhailovich, a translation of the Polish medical book "Prokhladny Vertograd" was popular, which, in particular, reported: "Nafta is oil, it has a dissolving and straining power, and the veins open that are gagged. It is good to ointment joints, which hurt".

Almost all modern guidebooks to Azerbaijan copy each other's legend about eight German merchants who



muhammad al shirinov/Shutterstock/FOTODOM

TETSU Snowdrop/Shutterstock/FOTODOM

bought concessions to develop oil fields in Baku and its environs in the 1880s. One of them was called E.I. Jaeger, and he was unlucky: the oil extracted from a 250-meter well in 1890 refused to burn. In order not to go bankrupt himself, the businessman had to promote the topic of the medicinal properties of oil by ordering a series of articles in medical scientific journals and set up production of naftalan creams, ointments and suppositories in his homeland.

Jaeger's business quickly took off, and the healing properties of naphthalan oil became a topic of conversation in Europe. The products of the chemical plants "Naftalan Gesellschaft" that opened in Dresden and Magdeburg were in demand, and there were also government orders.

The main paradox of the popularization of naphthalan in Russia during the Silver Age was that the raw materials were local, and the final product was imported from Germany. The revolution changed everything.

In 1926, the Naftalan balneological resort was built near the nationalized well of Herr Jaeger (335 km from Baku), and a city of the same name gradually emerged. People came here for treatment from all over the Union, and gradually a museum of crutches was formed in the city, which those cured by naftalan baths abandoned as unnecessary. In 1938, an experimental laboratory for studying the biological effects of naftalan was opened at the Baku Research Institute of Balneology. In 1941, production of the Naftalan ointment was established in Moscow.

Later, the research was continued at the Central Research Institute of Balneology and Physiotherapy of the USSR Ministry of Health in Yudino near Moscow. The Academy of Sciences also studied the physical and chemical properties of naftalan. Scientists found a fair



IN THE LABORATORY OF NAFTALAN OIL RESORT, AZERBAIJAN SSR, 1972

amount of physiologically active microelements (including iodine, lithium, rubidium) in the "healing" oil, as well as organic compounds of saturated tetracyclic hydrocarbons, also known as steranes, which are also a building material for steroids, from which, as is known, both testosterone and estrogen are formed. To put it simply, Soviet science proved that naftalan can treat not only everything that was mentioned earlier, but also slow down aging. If, of course, you do not abuse the procedures, since carcinogens, such as cobalt, were also found in the composition of this type of oil.

Colleagues from Kazakhstan say that oil extracted on the Mangyshlak Peninsula has properties similar to naftalan; it is so highly paraffin-rich that it can only be transported with heating. Several resorts opened in the region for this occasion, but now they have all switched to Azerbaijani naftalan.

In the 1970s, an oil field with properties similar to naftalan was discovered near Ivanić-Grad (27 km from the Croatian capital Zagreb). The Croats called this oil Križska. In 1989, a 111-bed

spa was opened in Ivanić-Grad, which is still in operation today. A two-week course of treatment includes a dozen daily 12-minute baths with light distilled naftalan. The facility guarantees that after each treatment the naftalan is re-sterilized.

Lightening naftalan de-resining is an interesting question in the context of preserving the product's beneficial properties. Some experts claim that de-resining even increases the beneficial properties. For skeptics, resorts in Azerbaijan, Kazakhstan and Russia (Kislovodsk, Sochi, Naberezhnye Chelny and other locations) offer a choice of treatment with both lightened and native dark naftalan. Using the latter is quite tedious: stubborn stains eventually cover clothes, towels, bed linen and everything around.

In Moscow, naftalan applications are offered by several medical centers; the nearest bath with de-resined naftalan can be taken at a sanatorium located 40 km from the capital. The cost of one such bath is 700 rubles, it is not necessary to take a week-long course of treatment, but

procedures are not provided without a doctor's permission. This is quite justified: treatment with naftalan has a number of contraindications. If you yourself do not note such contraindications, you can buy a five-liter canister of dark naftalan for about 40 thousand on marketplaces.

MOUNTAIN PANACEA

Galicia was considered the third largest oil field in the world in the 19th century, after Pennsylvania and Baku. In the peak year of 1909, Austria-Hungary extracted 2 million tons of oil in the Carpathian Mountains. By the second quarter of the 20th century, almost all the oil had already been pumped out, but there was still a good supply of methane.

The Carpathians also found their own oil byproduct – ozokerite, also called mountain wax or earth lard. According to one version, ozokerite is a type of bitumen, according to another, it is the evaporation of oil deposits that penetrates the cracks in rocks, oxidizes and over time hardens either to a waxy or solid state. Ozokerite is mined in the British Isles, the Turkmen coast of the Caspian Sea, in Romania and the North American state of Utah. In 1854, the Boryslav ozokerite deposit was discovered by German-born entrepreneur Robert Doms, who, in addition to brewing, was also involved in the oil industry.

At first, ozokerite was used to make candles and electrical insulation, but gutta-percha and synthetic rubber soon overtook the latter. Then they learned to produce paraffin from ozokerite, which found wide application in industry, electrical engineering, and cosmetology. In 1902, the French doctor Bart de Sandfort proposed using paraffin as a therapeutic compression agent, and the hospitals of World War I proved the benefits of paraffin therapy in practice.

In 1942, Soviet professor of medicine Semyon Lepsy proposed

using the original ozokerite instead of paraffin. Scientific research and subsequent experience showed that such compresses and applications can treat not only wounds, burns and injuries, but also diseases of the joints, spine, circulatory disorders, infertility, gastric ulcer and intestinal ulcers.

Since the mid-19th century, a resort operated in the city of Truskavets, located 4 km from the Boryslav deposit, where citizens of Austria-Hungary and tourists could improve their health with peat baths and mineral water Naftusya. In 1947, along with other procedures, they began to use applications of ozokerite mined at the Boryslav deposit.

In 1977, by decision of the Council of Ministers of the USSR, the ozokerite resort in Truskavets acquired all-Union significance. The Dnipro boarding house was built here, and railway and air traffic was established. At the same time, the film "Who Will Go to Truskavets?" was released on the country's screens with product placement unusual for the Soviet viewer. The leading actors of that period, Margarita Terekhova and Aleksandr Kaidanovsky, participated in the film by the Tajikfilm studio, based on a script by Rustam Ibragimbekov (White Sun of the Desert). The heroine accompanies her paralyzed mother for treatment in Truskavets, and the hero makes discoveries in a certain institute, where the entire department wears blue coats with white stitching on their naked bodies – a characteristic feature of nuclear physicists of that time. As a result, everyone goes to Truskavets.

An ozokerite "brick" costs about one and a half thousand on marketplaces, recommendations for treatment are usually given by physiotherapists, without much interest in contraindications. According to science, ozokerite applications cause short-term vascular spasm, a kind of reboot of



OZOKERITE

the human circulatory system. And what is a reboot, for example, in a computer? Normalization of work with the exclusion of past bugs.

It is better to buy not pure ozokerite (it crumbles), but an ozokerite-paraffin mixture. It is melted in a water bath, cooled in medical oilcloth to a plasticine consistency and applied to the joints requiring treatment for about an hour, carefully insulating them. Physiotherapists recommend carrying out such treatment daily, but no more than 10 times, since ozokerite, like naphthalene, contains carcinogens. You will also have to say goodbye to some clothes, towels and bed linen, but if you are not lazy, ozokerite stains can be removed with white spirit.

Having tested both naftalan and ozokerite on ourselves, as true scientists, we admit: some healing effect exists. However, we will not particularly extol it and recommend it to victims of improperly selected shoes, not being professional doctors.

It is not so important what is behind the belief of mankind in the healing properties of black gold: the magic of minerals, dinosaur DNA or the magical effects of millions of years of preserved immunity. We should not forget about another universal cure for all ailments – Tibetan mumijo. So, if you believe the Internet, mumijo is 80% paraffin oil. ●

Full text
on the website:



AUTHOR
ILONA LATSUZHBA

WHAT FUN IS TO RIDE

FOR OUR ANCESTORS, KEEPING A HORSE ON THE FARM WAS NATURAL, BUT NOW IT IS EXOTIC, AND QUITE TROUBLESOME. CONTRACT SPECIALIST OF CPC-R LIDIYA TISHCHENKO IS NOT ON THE FORBES LIST, BUT SHE HAS HER OWN HORSE, HOLIDAY. NOW WE WILL LEARN HOW TO CARE FOR HIM, WHAT TO FEED HIM, AND MANY OTHER INTERESTING THINGS



Lidiya, how did you come to such a bold and unusual idea — to buy a horse? Is it more of a long-standing and finally realized dream, a family tradition or an accident?

Holiday appeared in my life very spontaneously. In the summer of 2024, I came with my friend to the equestrian club at the Moscow Academy of Modern Pentathlon to try horse riding. I had long dreamed of mastering this sport, but did not know where to start. And my friend had already been involved in equestrian sports for quite a long time, and it was she who became my guide in this sphere.

It just so happened that Holiday was the first horse I rode. Anyone who has ever sat in the saddle and not fallen off will understand: success in equestrian sport is impossible without particularly close interaction with the horse. It is important to build partnerships and friendly relations with it, and, as paradoxical as it may sound, the horse itself will teach you how to control and ride it to a greater extent than the trainer. This was the case with Holiday — over time, we developed a special connection, we felt each other on an intuitive level

What is your hobby more — sports, transport or something else?

To say that horse riding is my hobby is probably not entirely true. Although, as I mentioned earlier, I wanted to learn how to ride a horse before. Now that I am doing it, I can confidently say that for me it is not just a sport. Time with Holiday is every time like a meeting with a loved one. I do not know how it works, but regardless of the events of the day that preceded our meeting, when I visit him, I am enveloped in peace of mind, balance and harmony.

What was the acquisition process and when did it happen?



SUCCESS IN EQUESTRIAN SPORTS IS IMPOSSIBLE WITHOUT A VERY CLOSE INTERACTION WITH THE HORSE

Holiday was recently written off from work at a state school “for health reasons”. The horse was put up for auction, an electronic auction was held on a specialized site. Unfortunately, such written-off horses are often bought through auction by butchers, since the cost is low compared to market prices.

I had not the slightest doubt that I would fight for Holiday at the auction. I was sincerely worried about him, fully understanding that

due to the disease of his front legs, he would no longer be bought for sport, therefore, the sample of buyers is very narrowed, and the risk of purchase by butchers increases. In the end, I managed to successfully win back the auction, and I became a newly-minted “cavalryman”.

Congratulations on this status, but perhaps the responsibility has also increased? And you also have to treat the horse, don't you?



must have five basic freedoms: freedom from hunger and thirst; freedom from discomfort; freedom from pain, injury and disease; freedom of natural behavior; freedom from fear and stress. These are the fundamental principles of a dignified life for an animal, according to the World Declaration on the Welfare of Domesticated Animals, formed back in the 1970s.

Lately there has been a lot of talk about hippotherapy, when a horse can help a person with health. How do you feel about it?

Hippotherapy is a miracle, nothing less. By the way, Holiday was such a therapist for some time for one visitor of the equestrian center, a cancer patient. This woman is currently assisting me in the matter of horse keeping to the best of her ability. Hippotherapy is used in the treatment of serious diseases: cerebral palsy, the consequences of a stroke, multiple sclerosis. I believe that horses help people in difficult life situations not to give up. In addition to some psychological support that they give us, there is muscle work and concentration training. But the main thing is that both horses and other animals teach us to love, be friends and bring goodness to this world.

What is it like to keep a horse? Where do you keep it, what do you feed it, how do you transport it? Where is the best place to learn the intricacies of caring for, raising and keeping a horse?

Buying and keeping a horse is not cheap. In addition to the ransom, you need to close the issue of boarding the horse: where it will live and in what conditions. Of course, you need to finance stable maintenance and – if necessary – pay for additional care services. In my case, this is gymnastics due to problems with the musculoskeletal system due to the horse's sports

career. Yes, veterinary services are not cheap, but if you have already taken responsibility for a living creature, then you need to be a worthy owner and take care of its health.

I also pay special attention to the topic of nutrition, focusing on porridge, muesli, and mixed herbs. In addition, horses need to have special supplements added to their diet, but this is a purely individual issue that depends on the horse owner's goals and the horse's health indicators. In general, I believe that it is necessary to theoretically prepare for keeping a horse: read specialized literature, chat on forums, learn the intricacies of care from friends, if any, watch various films or interviews, listen to podcasts. I tried all of the above options, and this gave me some basic knowledge.

Do you plan to participate in competitions and contests with Holiday?

At the moment, I don't plan to, despite the horse's "star" sports past. But life is very unpredictable, because everything can happen very unexpectedly, and the competitions can be different. I don't perceive Holiday exclusively in the sports plane, he is much more than just a pentathlon horse. He is my faithful companion, whom I value very much and from whom I receive trust, affection, care and absolute dedication in training.

What are your recommendations for those who would like to get a horse? Where is it better to buy, what breed?

I am not a professional athlete, and it is difficult for me to judge where it is better to get a show jumping, dressage or pentathlon horse. But I can say for sure that it is definitely a good idea to provide charity for those horses that are written off from schools or service and that have a high probability of ending up in the

hands of butchers. And what breed the horse is, personally, is not so important to me, if first and foremost it is a friend. I try to instill this view of animals, their perception as friends, in my daughter.

Will you teach her to ride? They say that children who grow up with animals become more responsible? And their immune system is better...

In my opinion, a child should be taught love, friendship and responsibility to those who depend on us and need us from an early age. In this regard, my daughter is lucky – literally from the cradle she has had my dog by her side. I am glad that they have a wonderful interaction. Of course, there are plans to introduce my daughter

to Holiday, but she still needs to grow up before that happens. At a more conscious age, I hope she will show interest in equestrian sports or just communicating with horses. But this question mainly depends on her desire..

We wish you success in such an expensive "charity hobby". Maybe we should declare an action "Let's help Holiday"?

Thank you first of all for the opportunity to talk about the universal human need to help those who are weaker or those who find themselves in a difficult life situation. However, if someone else takes part in the fate of the horse, which faithfully served people for many years, I will be only glad.

Yes, I am currently working hard on his treatment, because for all the time that Holiday has been a competitive athlete, bringing ranks and regalia to young people and showing brilliant results at all-Russian show jumping competitions, no one bothered to worry about the issue of his health. It is sad to realize that many sports horses are treated in such a consumerist manner. And, objectively speaking, buying and maintaining a horse is expensive. But my family taught me since childhood to adhere to the principle of helping and caring for our four-legged friends, which is why I so bravely signed up for all of this.

What does a person who deals with horses need to know? What

are the main mistakes in this kind of interaction?

First of all, a horse should not be treated as a training machine. A person who closely interacts with horses should always remember that they are noble, intelligent animals with a big heart and their own feelings. And the main mistake of many people, especially professional equestrian athletes, is that they forget this and perceive the horse only as a living instrument for achieving sports results.

Another major mistake is the lack of proper care and attention for the horse. It is not enough to just be friends with a horse, otherwise an unfavorable outcome is guaranteed. At a minimum, horses, like other living creatures,



AUTHOR ANDREY GRESHNIKOV, SENIOR TELECOM ENGINEER, CPC-R

MOVING TOWARDS SPRING

THE DAY IS GETTING LONGER AND THE NEW MOTORCYCLE SEASON IS JUST AROUND THE CORNER. TO MEET IT WITH DIGNITY AND GET MAXIMUM PLEASURE AND ADRENALINE FROM YOUR "IRON HORSE", I WILL SHARE SOME EXPERIENCE AND OBSERVATIONS

Why do you want to learn how to ride a motorcycle? Why do you need it – it's very dangerous?! You usually hear such questions from those who have never ridden a motorcycle and think that all bikers are people who do not want to live, or there is something wrong with their heads.

I remember the times of the USSR, when it was almost impossible to

buy a car, but anyone could afford a motorcycle. In rural areas, almost every owner had this two-wheeled vehicle, and motorcycles with a sidecar were especially popular. They were used to transport crops and travel with the whole family. As friends say, getting a category "A" driver's license to drive a motorcycle in those days was not as severe a test as it is now: a license was issued to almost everyone who could

correctly fill out an application to the traffic police.

My first ride on a motorcycle was at the age of 10, of course, as a passenger. There were so many emotions that the memory of it remained for life, along with the desire to learn how to operate this vehicle. Time passed, a significant part of it was eaten up by routine, but the desire to become a motorcyclist remained.



A special impetus to acquiring motorsport skills was provided by communication with the "CPC motorcycle club" – colleagues who would come to work on motorcycles in the warm season and leave them in front of the office. It was like an exhibition, a festival or a motorcycle show: beautiful ultra-modern bikes, shining with chrome and varnish. And the fact that while car drivers are stuck in traffic jams, motorcyclists were bypassing them is an obvious advantage.

As practice shows, any dream can be realized if you have such qualities as persistence, free time and a certain budget. Motorsport is no exception.

WHERE TO GO TO STUDY

So, what do you need today to obtain a document licensing the operation of a motorcycle, that is, a category "A" driver's license? First, a medical certificate, which can be issued through the EMIAS electronic system. The price may vary under different conditions. If you have category "C", then you will need a medical certificate for professionals.

Next comes training at a driving school, then passing the theoretical and practical exams at the traffic police. I looked at several driving schools in Moscow that were in my area. The main criterion for choosing was the availability of their own site for passing the exam.

When I came to meet the instructors of the chosen school, as well as the motorcycles on which I had to undergo training, I was a little surprised at first. The surprise was that the motorcycles were, to put it mildly, not at all what I thought I was going to learn on. Their condition also could not be considered excellent. It was the middle of summer, and the preparation period for passing the exam was getting shorter every day. After all, the exam is only taken in the warm season, and each year it can end in October or November, depending on the weather. Having

ALEXANDER DEMUS,
WAREHOUSE MANAGER (TF):

At the time of the opening of the Crimean Bridge, I was not a member of any motorcycle clubs and learned about the motorcycle rally from my biker friends, who invited me to take part, since this is a global event. Thousands of motorcyclists from all over the country took part in the rally, and it was a great experience communicating with fellow amateurs, as well as professional motorcyclists, with whom I still keep in touch.



talked to the CPC motorcyclists, I came to the conclusion that the more difficult it is to study, the easier it will be to pass the exam and the better preparation for city trips will be. And I started training.

The school had several courses with different number of hours of training. I decided to take the maximum number (15 lessons of two hours each) because I had never ridden a motorcycle before and wanted to prepare properly.

Training starts on a Yamaha YBR-125. This is a motorcycle authorized for A1 category (up to 150 cm³).

First, the basics are mastered: getting to know the start-stop mode

at low speeds. This is necessary so that the person learns to synchronize the movements of their limbs with the controls of the motorcycle, feels the center of gravity of the machine and is able to maintain balance on it. As soon as the instructor sees that the student can handle all this, the next tasks are given – going around obstacles at low speed, climbing and descending from a hill. Then they practice riding in a circle and doing the "figure eight" exercise. It was summer, and the training resembled sports aerobic exercises.

When students cope with these tasks, they are moved to more powerful motorcycles. In my case, it was a Bajaj Pulsar 180. The instructors said that if you learn to perform all the elements required by the exam on it – the "figure eight", riding on the board, the slow "snake", the high-speed section, the corridor, then you will pass the first time. I admit, it is not easy to control this motorcycle: it is clumsy, jerks, stalls.

Joy and pride fill the student's heart when the instructor allows him to go to the next level after the naughty Pulsar. In my school it was the Kawasaki Z250. This is a completely different motorcycle in all respects. It has a larger engine capacity, an ABS system, and excellent throttle response. But



LYUBOV REUTOVA,
ADMINISTRATIVE ASSISTANT,
TRANSLATION SERVICE:

Motorcycle... You immediately get images of roads, smells, sounds, wind in your ears. You will never feel this if you are driving a car. When I first sat as a second number (that's what they call a passenger) on a motorcycle, I fell in love with the iron horse and my feelings. A year later, I realized that I wanted to try it myself. I studied at a motorcycle school and passed my driving test. I drive carefully, since I already had my "first flight". A huge experience of driving a car does not help in any way, except in the area of knowledge of traffic rules and the ability to read the situation on the road. It is easier and simpler for girls to ride as a passenger, but not everyone can do this, this also requires skill! When driving, you concentrate on the road and other road users, and as a passenger, you simply completely trust the rider and enjoy the views. But what these views will be depends on you.

I like to build routes myself. While I am planning it, I count the mileage, book hotels, look for attractions, gas stations, cafes on



the map. The further you go, the stronger the desire to experience it not in the route sheet, but in reality. The result of the trip is unforgettable emotions, meetings, photos and the desire to rush somewhere again. There are hundreds of routes — you can go to the Moscow region, neighboring regions, or you can plan your vacation in other regions. For example, through the mountainous regions of Kabardino-Balkaria, North Ossetia, Ingushetia, Chechnya, Dagestan. For those who cannot imagine summer without the sea — the route from Sochi to Anapa via Abrau-Dyurso. A very beautiful road in Abkhazia along the seashore. And what air! You can rush through beautiful places in Siberia — to Altai along the Chuysky tract. The most desperate travel 10,000 km to Vladivostok. Someone prefers the route St. Petersburg — Karelia. Here you can spend a full vacation, but you can also see a lot over the weekend. And, of course, trips to neighboring countries — Georgia, Armenia, Turkey, Uzbekistan, Kyrgyzstan and so on. Exotic motorcycle trips with air travel to Southeast Asia are also available — Thailand, Laos, Vietnam, Cambodia.

There are motorcycle communities, motorcycle clubs, tour operators where you can find ready-made motorcycle routes — for weekends or multi-day ones. For example, they offer one-day trips of 100–500 km, routes for 2–4 days and 500–1500 km, trips for 5–12 days and 1500–4000 km, "vacation" trips for 13–30 or more days with a length of 5000 to 15,000 km. You can go on such trips on your own or rented motorcycle, in the company of the same "charged" like-minded people.

this is not the model on which you take the preparatory exam, the Bajaj Boxer 150 is intended for this. Fortunately, this motorcycle is only slightly worse than the Kawasaki, and most students pass the exams on it successfully.

But, as already mentioned, the practical exam is preceded by a theoretical one. The driving school offered several options for learning the theory: in person, remotely, and recorded lessons. Additionally, it was recommended to install the "Traffic Rules Tickets 2024" application on your smartphone. Once ready, you had to pass the theoretical exam at the driving school. I listened to all the recorded lessons, learned to answer all the tickets correctly, and successfully passed the preparatory exam. After passing it, as well as the driving test on the driving site, the driving school submits documents to take the exam to the traffic police.

The theoretical exam at the traffic police was held in the same way as at the driving school, which was very convenient. After successfully passing the theory, a driving test is scheduled on the site: several elements, as mentioned earlier. Only two mistakes are allowed: once to touch the ground with your foot and once to stall. All other mistakes lead to the exam being postponed to another date. Excitement among those taking the test is the main factor due to which mistakes are made. The main thing is to be calm and determined.

What joy you feel when you successfully pass the exam and understand that you have achieved your goal! Efforts and time are not wasted, you can go get your license the next day.

Interesting fact: in 2024, more than 500 people were trained at my school, more than a quarter of them were girls. By the way, according to school statistics, they are more persistent in getting a category, unlike men. And they are a joy to behold on the road.

Another important factor in successfully passing the exam is communication with students of the motorcycle school. In a dialogue with them, you will learn useful tips: how to pass the «figure eight» or rides on the board. Where to look, which motorcycle controls (gas, brake, clutch) to pay more attention to. As a result, you understand where you make mistakes and how to correct them.

And the most important thing is to have a mentor nearby who will guide you in the right direction during your training. My colleague, who used to own a motorcycle, was the impetus for me to get my license. However, later, for some personal reasons, he switched to a "box" — that's what motorcyclists call a car.

THE IMPOSSIBLE IS POSSIBLE

When you have your Category A license in your pocket, you can go to the motorcycle showroom to buy one. To be honest, my eyes ran wild there: you could choose



YURI ONUCHIN,
SERVICE HEAD, LOGISTICS AND
CURRENCY CONTROL:

I have loved two-wheeled vehicles since childhood. These were trips to the forest for mushrooms, away from the bustle of the city, where you can't get on foot. At one time, I tried different types of motorcycles: road, motocross, chopper, cruiser — it depends on the current mood of the owner. The main requirement for a two-wheeled friend is controllability, reliability, predictability both on asphalt and on country roads. Now I'm going to turn the next page — try the Enduro SUV. Traffic in a metropolis due



to traffic congestion and eternal traffic jams discourages any desire to ride around the city, so I will master the vastness of the roads of the Moscow region: secondary, country, forest. It's a pity that the motorcycle season ends so quickly in the middle zone.

from a dozen types, hundreds of models and thousands of modifications. First, you need to decide on the type of motorcycle (city, country, sports, chopper, etc.). In the end, I chose a city type of motorcycle, but with the ability to ride longer distances.

The mandatory requirement was the presence of such systems as ABS, traction control, cruise control, computer, hand protection, heated steering wheel, low fuel consumption and throttle response. Modern motorcycles already have such systems that even modern cars do not have. Here and shifting without a clutch, distance control to the vehicle ahead, and other options.

Having bought a motorcycle, you also need to take care of the equipment: helmet, jacket, gloves, shoes. Without equipment, the trip may not always end beautifully, pleasantly or even safely. It is unsafe to neglect the equipment, because the motorcyclist is the least protected participant in the traffic, after the cyclist and

pedestrian. Modern equipment is lightweight, strong and comfortable clothing with inserts made of Kevlar and carbon in places where it is likely to touch the asphalt. There is already active protection that prevents injuries in an accident. The choice of equipment is huge and is aimed at any thickness of the wallet. It is best to buy all this during the autumn-winter sales in order to be fully armed for the upcoming motorcycle season.

Fellow motorcyclists say that they "wind up" 15,000 km during the summer, exploring both neighboring regions and southern latitudes: Crimea, the Caucasus, newly opened highways. They also go for a ride on motorcycles to distant countries: Thailand, Indonesia, Vietnam. Here everything depends on the mood and opportunities.

The traffic rules in Russia provide for three official signals given by a motorcyclist with his hand. There are also unofficial signs that motorcyclists use to communicate with each other while driving.

STOP – the hand is down, palm facing back



IN ONE ROW – the hand and index finger are extended upwards



SLOWING DOWN – downward movement with outstretched hand, palm down



IN TWO ROWS – two fingers are extended upwards



ACCELERATION – upward movements with outstretched hand, palm up



INTERFERENCE ON THE ROAD – it is shown on the left with a hand, on the right with a foot



OVERTAKE – movement of the hand forward, with the index finger extended



HIGH BEAM – tapping with the right hand on the top of the helmet



FOLLOW ME – the arm is extended upward from the shoulder, palm forward



GETTING OFF THE ROAD – the arm bent in the «turn to the right» position makes movements from left to right



TURN ON THE TURN SIGNAL – clenching and unclenching the fist at arm's length



A SHORT STOP – the fingers are clenched into a fist, the thumb is pointing at the mouth



PETROL or REFUELING – pointing your finger



REST STOP – short movements up and down with an outstretched hand with a clenched fist



In the motorcycle community, everyone respects each other, so motorcyclists greet each other not only when parked, but also while riding. They greet each other by raising their hand or nodding their heads. Every year, motorcyclists gather for their own opening and closing festivities.

When you are abroad, you also notice some differences in motorcycle driving culture in different countries.

For example, the American bikers we met in 2004 travel on the roads without any equipment at all. Later I found out that this is not allowed in all states, on all roads, and on all motorcycles.

In Thailand, a motorcyclist wearing a helmet is a rare sight, although the rules stipulate mandatory wearing of this element of protection when driving a motorcycle or scooter. Well, no one thinks about protecting the rest of the body in this kingdom at all.

Safety rules for driving a car and a motorcycle have a number of differences, it is important to remember and practice several of the main ones. For example, if you suddenly encounter an obstacle on the right or left, a motorist must apply the brakes, while a motorcyclist, on the contrary, must accelerate. This is due to the different lengths of the braking distances of a motorcycle and a car.

The principle of movement is also different in turns. The motorcyclist

must calculate the trajectory over a longer section and use countersteering, leaning the motorcycle towards the turn. Turns must be taken at the same speed, since acceleration on a curved section leads to the motorcycle taking a vertical position and going straight. In order to perform a maneuver at low speed, the motorcyclist must set the steering wheel towards the turn and brake with the rear wheel. Braking with the front wheel in a turn is strictly prohibited – in this case, the probability of falling is high.

When riding on public roads, it's important to remember that taking risks outside of the rules of the road can be costly for both the motorcyclist and his neighbors. If you want adrenaline, welcome to the track!

Motorists who do not drive in winter and then spend some time on the roads rehabilitating the skills they forgot during the cold season are dismissively called "snowdrops". It would seem that motorcyclists should be called the same, but not everything is so clear-cut. In Moscow, there are 24-hour and year-round motorcycle sites where you can hone your driving skills – under a roof, in the warmth, under the guidance of experienced specialists. And you don't even have to bring your own motorcycle there – they will select a suitable one from their own motorcycle fleet. ●



WEBSITE "CPC PANORAMA" <https://cpc-online.ru/>



"CPC PANORAMA" – VK



"CPC PANORAMA" – ZEN



CPC-R, MOSCOW OFFICE

Bldg. 1, 7 Pavlovskaya Str.,
Moscow, 115093, Russian Federation
tel.: +7 (495) 966-50-00
fax: +7 (495) 966-52-22
e-mail: Moscow.reception@cpccpipe.ru

CPC-R, WESTERN REGION

Budennogo Str., 117/2, Krasnodar,
350000, Russian Federation
tel.: +7 (861) 216-60-00
fax: +7 (861) 216-60-90
e-mail: Krasnodar.reception@cpccpipe.ru

CPC-R, REPUBLIC OF KALMYKIYA

Suite 608, V.I. Lenina Str., 255a, Elista,
358000, Russian Federation
tel.: +7 (8512) 27-13-89
e-mail: Elista.reception@cpccpipe.ru

CPC-R, NOVOROSIYSK

Isaeva Str., 1a, Novorossiysk,
Krasnodar Krai, 353900, Russian Federation
tel.: +7 (8617) 29-43-00
fax: +7 (8617) 29-40-09
e-mail: Novorossiysk.reception@cpccpipe.ru

CPC-R, STAVROPOL KRAI

Suite 208, Ryleeva Str., 7, Stavropol,
355000, Russian Federation
tel.: +7 (861) 216-60-00
e-mail: Krasnodar.reception@cpccpipe.ru

CPC-K, EASTERN REGION

Business center «Grand Asia»,
Abilkhair Khan Ave., 92b, Atyrau, 060097,
Kazakhstan
tel.: +7 (7122) 76-15-00, 76-15-99
e-mail: Atyrau.reception@cpccpipe.ru

CPC-R MARINE TERMINAL

Marine Terminal Primorsky District Territory,
Novorossiysk, Krasnodar Krai, 353900, Russian
Federation
tel.: +7 (8617) 29-40-00
fax: +7 (8617) 29-40-09
e-mail: MarineTerminal.reception@cpccpipe.ru

CPC-R, CENTRAL REGION

Kuibyshev Str., 62, Astrakhan,
414040, Russian Federation
tel.: +7 (8512) 31-14-00, 31-14-99
fax: +7 (8512) 31-14-91
e-mail: Astrakhan.reception@cpccpipe.ru

CPC-K, ASTANA

10th floor, Kunayev Str., 2, Astana,
010000, Kazakhstan
tel.: +7 (7172) 79-17-00
fax: +7 (7122) 76-15-91
e-mail: Astana.reception@cpccpipe.ru

PANORAMA
CASPIAN PIPELINE CONSORTIUM

нюдуpeople

CPC PANORAMA Corporate Magazine. No 4 (47) December 2024. The issue is prepared by the CPC Press Service.
Editor: Dmitry Konstantinov. E-mail: Dmitriy.Konstantinov@cpccpipe.ru; Pavel.Kretov@cpccpipe.ru.
Tel.: +7 (495) 966 50 00 (ext. 5323 and 5220); www.cpc-online.ru

Publisher: LLC Media Service. 111024, Moscow, ext. ter. Lefortovo municipal district, Aviamotornaya str., 50, p. 2, room. 29/2.
www.vashagazeta.com. Tel.: +7 (495) 988 18 06. E-mail: ask@vashagazeta.com. General Director: Vladimir Zmeyushchenko.
Managing Editor: Julia Kuznetsova. Editor: Larisa Solodovnikova. Art Editor: Juliya Osintseva. Designer: Gulnara Aglyamutdinova.
Translator: Ildar Nasyrov.

Photos: CPC Press Service, TASS, Shutterstock/FOTODOM.

Printed in the «A2Press»: 2d Yuzhnoportovy pr., 26a, building 12, 115088, Moscow.

It is forbidden to use any content without the consent of the editorial office.

CASPIAN PIPELINE
CONSORTIUM:

A TIME-TESTED INTERNATIONAL PROJECT



CASPIAN
PIPELINE
CONSORTIUM