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Army-2017's Syrian accent

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At the Army-2017 forum, which concluded on 27 August in the Moscow suburb of Kubinka, representatives of the Russian defense agency stated that in Syria they have been able to test the most modern examples of weaponry. As part of Army-2017, 140 events were held in the scientific-business program (in 2016 there were 104) with the participation of well-known social operators, military experts, general designers, and leading scientists, including representatives from 17 foreign governments.

The Mexican Vector

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Over recent years, collaboration between Russia and Mexico in the area of arms trade, as well as military and civilian aviation technology has grown substantially. The Mexican infantry's regular antitank grenade launchers are the RPG 29 Vampire made in the Russian Federation. Since 2013 Russia has delivered 22 "Sukhoy Superjet" 100 short-haul passenger planes to Mexico.

An Ambulance Competition

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This Saturday saw spectacular and fascinating Mil Design Bureau Cup helicopter competitions at the Podushkino Helipark for a prize from the Russian Helicopters holding company. Taking place annually, these competitions focus on one current theme each time. This year the "Cup" was dedicated to ambulance aviation, which is actively developing in Russia. Many companies, comprising the Helicopter Industry Association (HIA), actively take part in implementing the government programs in this area.

Una nueva página en el desarrollo de la aviación sanitaria de Rusia

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Hoy en Rusia, de acuerdo con los programas estatales "Desarrollo de la aviación sanitaria" y "Prestación oportuna de la atención médica de emergencia a los ciudadanos que residen en regiones remotas e inaccesibles de la Federación de Rusia" se está desarrollando progresivamente la aviación sanitaria.

Other articles

El futuro civil de los Helicópteros de Rusia

Una de las prioridades más actuales en el desarrollo del holding nacional ruso "Helicópteros de Rusia" es el aumento en el volumen de ventas de exportación de aviones civiles. Hoy en día la parte del sector militar representa el 70% de la producción total del holding, que el año pasado proporcionó el 10% de las ventas de helicópteros en todo el mundo, y más del 20% en las ventas de helicópteros de propósitos militares fue la parte de "Helicópteros de Rusia".

El holding prevé una disminución de los pedidos militares tras el cumplimiento de la mayor parte de los pedidos del Ministerio de Defensa y la disminución esperada del porcentaje de equipos militares en la demanda mundial. Ahora, los "Helicópteros de Rusia" quieren aumentar de cuatro a cinco veces los suministros de productos civiles a Rusia y los mercados asiáticos tradicionales.

En el contexto de la crisis y las sanciones, la principal tarea de "Helicópteros de Rusia" es mantener los volúmenes de producción. La compañía espera obtener el máximo beneficio del mercado interno, tanto en el sector militar como en el civil, y fortalecer su liderazgo en los mercados en crecimiento, incluyendo China, India y Latinoamérica. En 2017, la empresa espera aumentar los suministros de helicópteros en más del 15%, y los ingresos — en un 14%. Según el plan de

Si en 2016 el holding suministró sólo 16 helicópteros civiles, entonces los planes para 2017 suponen un aumento en las ventas de cuatro a cinco veces, hasta 70–80 helicópteros

suministro hasta 2020, el 41,2% de los pedidos se ejecutará en 2017 (192 mil millones de rublos), otro 39,9%, de 186 mil millones de rublos, en 2018, el restante 18,9%, de 88 mil millones rublos, en 2019–2020.

El pedido estatal de defensa está disminuyendo, y compensarla rápidamente a través de exportaciones y productos civiles es imposible. Según el D. Andrei Boginsky, Director General de "Helicópteros de Rusia", la compañia "está obligada a ajustar planes y estrategias de desarrollo de acuerdo con las situaciones previstas". Según él, "en primer lugar, estamos hablando de aumentar el porcentaje en las ventas de los productos civiles, donde ya hay resultados notables". Si en 2016 el holding suministró sólo 16 helicópteros civiles, entonces los planes para 2017 suponen un aumento en las ventas de cuatro a cinco veces, hasta 70–80 helicópteros. El D. Boginsky señaló que el holding está sacando al mercado nuevos modelos — "Ansat", Mi-171A2, Mi-38 y Ka-62, los principales consumidores de los productos civiles son: las compañias aéreas de la Federación Rusa, Ministerio de Salud, el complejo de industria de la madera y la seguridad contra incendios.

De los 450 helicópteros que "Helicópteros de Rusia" exportará para 2025, más de la mitad serán "Ansat". El holding "Helicópteros de Rusia", que espera recibir la certificación europea para este aparato, está equipado con motores canadienses de la compañia "Pratt & Whitney", para demostrar su competitividad a clientes en Asia y América del Sur, pero por el momento sólo a firmado un contrato con China para el suministro de dos helicópteros.

El "Ansat" que es utilizado por el ejército ruso para la formación de pilotos, ahora se unió oficialmente a la regla civil del holding de los helicópteros rusos (previstos para el transporte de siete pasajeros, VIP-versión, evacuación médica, y así sucesivamente) y está dirigido a nuevos mercados para el holding, lo que sugiere el interes de propietarios privados, de transportistas comerciales y operadores médicos.

En el sector con un alto nivel de oferta, el holding "Helicópteros de Rusia" espera que el precio sea del 20–25% más bajo que los competidores, y "Ansat" no va a conceder a sus "compañeros de clase "Bell" y "Airbus" en las líneas de competidores. Con el problema de la dura competencia, también le toca enfrentarse al helicóptero diseñado por OD "Kamov" — el Ka-62, equipado con motores "Safran" y destinado para el transporte sobre el mar. Después de todos los retrasos, saldrá al mercado sobresaturado.

Actualmente, la Fábrica de Helicópteros de Kazan, consta con 6,3 mil empleados (de un total de 40 mil en la totalidad del holding), principalmente trabajan para la producción de helicópteros de la familia Mi-8/17. Sus clientes son principalmente clientes militares, principalmente el ejército ruso, para el cual la fábrica lanzó el montaje de una nueva versión de su impresionante Mi-38. El "Ansat", el Mi-17 y el Mi-38 se relacionan con la misma línea de producción, para los cuales los equipos fueron comprados en los paises de Occidente antes de las sanciones, que prohíbe la transferencia de tecnología a Rusia para la producción de destino doble (civil y militar). Sin embargo, en un futuro próximo, gracias a las inversiones nacionales en la construcción de motores de aeronaves, en el desarrollo de los má nuevos equipos de a bordo, en la tecnología de compuestos y 3D-impresión, la industria rusa de helicópteros será capaz de llevar a cabo los avances tecnológicos por su cuenta, como lo fue en la época de la Unión Soviética. Y este momento no está muy lejos.

D. Andrey Vezhnovets

Today the portfolio of orders for delivery of Russian equipment abroad amounts to around 50 billion dollars

Army-2017's Syrian accent

At the Army-2017 forum, which concluded on 27 August in the Moscow suburb of Kubinka, representatives of the Russian defense agency stated that in Syria they have been able to test the most modern examples of weaponry.

"During the Syrian conflict we have 'rolled out' more than 600 modern varieties of defense technology…. One cannot overestimate the fact that representatives of the military-industrial complex (MIC) have been together with us and as soon as defects appeared they brought corrections to the design documentation of the latest items right on the spot or in our agency's offices," said Yuriy Borisov, Deputy Chief of the Ministry of Defense of the Russian Federation.

Seventy-eight defense enterprises from 14 foreign countries presented their exhibits at the Third Military-Technical Forum (in 2016 fifty-eight enterprises from 13 countries participated).

As part of Army-2017, 140 events were held in the scientific-business program (in 2016 there were 104) with the participation of well-known social operators, military experts, general designers, and leading scientists, including representatives from 17 foreign governments.

More than 8600 people took part in the business program, including more than 2000 specialists with higher qualifications.

The use of a video conferencing allowed the geography of forum participants to be expanded. So as to permit direct participation in twelve round tables, direct communication was arranged with subscribers located in Kaliningrad to Khabarovsk, as well as at the Khmeymim Air Base in Syria.

The demonstration program took place at several locations: at the Alabino complex, at

Lake Komsomolskoye, and at the Kubinka airport. More than 300 units (in 2016—251) of modern and prospective technology and equipment from the Ministry of Defense were drawn to it, and 27 prospective examples of military and dual-purpose equipment and more than 40 units of small arms from MIC enterprises were demonstrated.

Even allowing for the military orientation, the helicopter lineup at Army-2017 was quite rich.
For the first time here, for example, the Mi 8AMShT V helicopter was shown. All the technical alterations had a “Syrian accent”.

In the opinion of the experts Moscow has learned to produce drones in its Syrian operations. Russian drones have made a number of reconnaissance flights for the purpose of surveillance and reconnaissance, which

The Syrian accent was felt in the design of the exhibition

Over the last ten years, helicopters of the Mi 17 type have reliably maintained leadership in deliveries to the world market in the sector of medium multipurpose and military transport helicopters


One of the original exhibits became a combat gyroplane

has allowed them and their Syrian allies to maintain better control on the ground. This places Russia on the same level with its American colleagues in terms of using drones in a hostile environment and in prolonged military operations. Russia has developed a wide range of drones for various missions. Russian troops are actively using three "workhorse drones": "the Eleron for short-range air surveillance and observation, the Sea Eagle 10 and Outpost multifunctional drone complex, and Searcher, a licensed copy of the Israeli IAI".

Previously Russia lagged behind even Iran in the application of military drones. Realizing that drones in the hands of the enemy were becoming a real threat, the Russian MIC began to develop countermeasures. In fact the Syrian campaign has taught the Russian Army many useful lessons and has prepared it for the future. Without a doubt Russia today is counted among the world leaders in incorporating reconnaissance drones into its military forces. There are now more than 2000 units among the troops, and in Syria the Russian Ministry of Defense uses drones more than it uses airplanes and helicopters taken together.

Along with the new types of aviation equipment, the client base in the market for arms for traditional military aircraft continues to expand. During the Army 2017 International Military-Technical Forum, Russian Defense Export signed two contracts for delivery of Mi 171Sh military transport helicopters and aviation weaponry resources to Burkina Faso.

"Our partners will receive two machines. The contracts will be fulfilled in 2018," announced the Deputy General Director of Russian Defense Export and Director of the Department of Export of Special Military Properties and Services, Sergey Kornev.

The special exporter notes an increase in demand for helicopters of the Mi 17 type to the countries of Africa, the Asian-Pacific region, and the CIS. According to predictions from Russian Defense Export, the Mi 17V 5 and Mi 171Sh Russian medium military transport helicopters, along with their subsequent modifications, will maintain their competitiveness and prospectively will be in demand in the market.

"Burkina Faso's armaments now include Mi 17 and Mi 24P helicopters. Signing the contract attests to the high reliability and good operating qualities of Russian aviation equipment. In addition, our partners have informed us of their intention to develop a military-technical partnership. They are presently looking at the possibility of obtaining military-oriented products from us for other types of armed forces," Sergey Kornev added.

Over the last ten years, helicopters of the Mi 17 type have reliably maintained leadership in deliveries to the world market in the sector of medium multipurpose and military transport helicopters. Eight hundred units of these machines have been exported, which exceeds the total volume of deliveries of foreign analogs. Altogether over the last 30 years more than 4000 machines of this type have been turned over to foreign customers from more than 100 countries.

Also in the course of the Army 2017 International Military-Technical Forum, Russian Helicopters company together with the RF Ministry of Defense planned to sign a contract to develop a concept for a high-speed military helicopter. In the course of this project the scientific-technical work already ac-

Heavy drone of Saint-Petersburg company Radar MMS

cumulated during flight tests of the flying laboratory of the long-term high-speed helicopter with new bearing rotor will be used.

As Andrey Boginskiy, head of the helicopter holding company, announced, “This previous work was obtained not only at the holding company’s own expense, but also with government financing resources. It’s a two-years contract, and as a result the looks of the high-speed military helicopter should be determined and a technical assignment created for carrying out test and design operations.”

During the forum’s demonstration program, the legendary helicopter piloting group Berkuty from the Tver Oblast appeared. The Berkuty are the only helicopter piloting group in Russia and the only one in the world that can perform complicated flying figures in military helicopters. The forum participants recognized the extraordinary mastery in controlling Mi 28N “Night Hunter” helicopters.

Today the portfolio of orders for delivery of Russian equipment abroad amounts to around 50 billion dollars. This was reported at the press conference at the conclusion of the Army-2017 forum. It also became known that experts selected around 350 innovative developments for the Ministry of Defense. In terms of participants, exhibitors, and scientific-business events, this year’s forum was half again as large as last year’s.

The Rostekh State Corporation, which includes assets of the Russian Helicopters holding company, held around 100 meetings with Russian and international delegations from 50 countries at the Army-2017 International Military-Technical Forum and signed more than 30 contracts and agreements worth a total of 40 billion rubles. The company announced this on its site.

Andrey Vezhnovets

While investing money in Russian armaments, Mexico is providing for its own security–not only military, but also economic

The Mexican Vector

Over recent years, collaboration between Russia and Mexico in the area of arms trade, as well as military and civilian aviation technology has grown substantially. The Mexican infantry's regular antitank grenade launchers are the RPG 29 Vampire made in the Russian Federation. Since 2013 Russia has delivered 22 "Sukhoy Superjet" 100 short-haul passenger planes to Mexico. And in November, 2016, Andrey Boginskiy, the Russian Deputy Minister for Industry and Trade, announced that both countries may proceed to the development of a joint light helicopter project in the near future. Naturally, all this cannot help but worry the leadership of the US.

At present, various models of aircraft made by the American companies Bell, Hughes, and Sikorsky, several French Airbus Helicopters, and around 20 Russian Mi 8T's and Mi 17's form the basis of the helicopter fleet of Mexico's armed forces and federal police. All these helicopters are transport and multipurpose aircraft. Many of these are armed, but there are no pure "strikers" at the disposal of the Mexican armed forces. The US has declined at some time to sell its well-known AH 64 Apache helicopters to its southern neighbors, therefore Mexico's interest in purchasing aircraft "on the side" which are comparable in terms of features is quite understandable.

"The US has always sold to Mexico 99% of the armaments that it imports," said Sergey Sudakov, professor at the Academy of Military Sciences and political scientist, Americanist. "Everything was convenient and

comfortable: suppliers were well-tried, equipment and replacement parts could be received close at hand. But things started to change when Donald Trump came to power, since he steered a direct course toward confrontation: he hardened the immigration policy, renewed construction of the border wall, and quarreled with President Enrique Peña Nieto. I can state confidently that there have not been such cold relationships between the US and Mexico for hundred and fifty years."

While investing money in Russian armaments, Mexico is providing for its own security—not only military, but also economic. Taking advantage of their right as monopolists, the American armament manufacturers do not hesitate to grossly drive up prices for their products. Besides, they are annually increasing tariffs on replacement parts and maintenance of equipment exported to Mexico. And if the Americans decide to terminate military-technical cooperation following some other quarrel, Mexico will very quickly be left without dependable aviation.

"It turned out that it is more advantageous for them to purchase the Russian equipment," said Sergey Sudakov. "Russian helicopters are not inferior to the American ones in terms of their capabilities, and sold at lower prices, and their maintenance is cheaper as well. Price advantage makes it possible to recover expenses for more complex logistics. And of course, collaboration with Mexico is very beneficial for us. In the first place, it is a matter of prestige—we have actually deprived the US of competitive advantage on their traditional market for military equipment sales. Secondly, it's real money—not just for the military equipment itself, but also for maintenance in the years to follow, training of specialists, and so on. And thirdly, doing business with Mexico is good advertising for our armaments in Latin America."

Russian helicopters are not inferior to the American ones in terms of their capabilities, and sold at lower prices, and their maintenance is cheaper as well

At FAMEX-2017, an international armaments exposition held in April this year, it has been reported that Mexico intends to purchase a new lot of multipurpose Mi 17 helicopters from Russia for its defense and law enforcement agencies in the near future.

Trade details as well as quantities to be delivered were not discussed. It has been reported that Russia has suggested that Mexico purchases other models of helicopters, including the Mi 35 and Mi 28NE strike helicopters.

Mexico is neither a member of NATO nor any other Western military alliance, and so it has every right to purchase armaments from anyone it wants to, whether it pleases the US or not. Furthermore, most of the equipment purchased was transport helicopters of the Mi 8/17 family. Mexican pilots are familiar with that equipment and know how to fly it. The potential deal is good news for every-

The Mexican Marines are the marine corps and amphibious infantry force of the Mexican Navy

one. Customers are satisfied with the Russian helicopters and feel that the Mi 17 is superior to the American competitors. And possible interest by the Mexican partners in the Mi 35M and Mi 28NE has been evoked first of all by the military application of these aircraft in Syria where they have shown themselves to very good advantage.

New information about the purchases came out in July this year. The latest Ansat multipurpose helicopter sparked interest of a delegation from Mexico at the MAKS-2017 air show held in Zhukovsk. Valeriy Pashko, The Director for Marketing and Sales at Kazan Helicopter Plant, said that it is beneficial for Mexico to procure Ansat's due to a quality-to-price ratio.

"The Ansat can boast of having excellent technical flight characteristics, and it has a better price-to-quality ratio than Western helicopters since Russian equipment is a priori sold at lower prices. Do you know why? Not because we are going through a crisis, but because we have smaller workforce and there are substantially fewer components. That is why, it turns out to be advantageous for a user when he considers the cost per flight hour," Pashko said.

This primary included Mexico's plans to use the Russian equipment in its struggle against drug trafficking. The Ka 226 helicopter was also considered as target candidate, along with particularly strike aircraft, the Mi 35 and Mi 28NE.

Mexico is a country that occupies a rare geographical position. It is located between the Pacific and Atlantic oceans. On the Pacific side, an earth's brake up lies along the entire coastline — this is a seismically active zone, with frequent earthquakes. The Gulf of Mexico is weather cooking pot. It is right here where the marine and atmospheric currents meet; here is where the Gulf Stream is born; and here is where cyclones are most active. Six chains of mountains stretch along the coast and are also a major seismic area. And the mountains are not just a beauty of nature; there are strong air currents, rock-

Russian helicopters are equipped with the Federal Police Force of Mexico

"This is our first contract with Mexico's Ministry of the Navy. It was completed fully and in due time," reported Igor Chechikov, Deputy General Director for Aftersales Service at Russian Helicopters Holding Company. "For us, Mexico is one of the key partners in Latin America that operates a rather extensive fleet of Russian-made helicopters."

At FAMEX-2017, Rosoboronexport conducted successful negotiations with other countries of the region as well. In particular, commercial proposals for delivery of Ansat multipurpose helicopters were made delivered to Paraguay and Chile. Bolivia expressed interest in procurement of a batch of Mi 17's. And there was a discussion with Colombia to elaborate on the upgrade of Mi 17V5's that are in service at Colombia's Armed Forces.

Andrey Vezhnovets

slides, avalanches, and flash floods. Due to frequent natural disasters and absence of a well-developed road network in the high mountains helicopters are in great demand. There are times when they are the only possible way to deliver goods and rescue people. This country at some time has purchased 60 Russian Mi 17 and Mi 8 military and civilian helicopters (the history of deliveries begins in the 1990s). Back in the 2000's, the Mexican Armed Forces procured two Mi 26T's for transportation of airborne assault forces and cargo.

We should also keep in mind one of today's major priorities of the Russian Helicopters Holding Company— active development of a comprehensive aftersales service of Russian-made helicopter equipment throughout the world, including a number of countries in Latin America. In particular, in 2014 – 2015 the holding company successfully collaborated with the Mexican Ministry of National Defense to perform major overhaul of 19 helicopters.

Mexico is neither a member of NATO nor any other Western military alliance, and so it has every right to purchase armaments from anyone it wants to

The Situation Center takes the Russian Helicopter's after-sale maintenance system to a fundamentally new level

Launch of Situation Operations Support Center

In mid-September the Russian Helicopters announced that it is ready to launch a Situation Operations Support Center for helicopter equipment.

Currently, the Russian Helicopters Holding Company takes necessary steps to create and put into a commercial operation a Situation Center aimed at monitoring of the technical condition of the Russian Ministry of Defense's helicopter fleet. Such system will enable prompt data collection and processing in order to make timely decisions to perform maintenance work within the framework of a State Defense Order.

The Russian Helicopters has developed the Situation Center based on its unique experience in helicopter operation and taking into account wishes of the primary operators of this equipment. Creation of this technical unit was called into existence to a great extent by recent events in Syria — practical experience of Army's technical services on a modern battle ground. At "Army-2017", an international military and technical forum, some components of the Center were presented to the Russian Minister of Defense Sergey Shoygu and his deputy Yuriy Borisov. They gave the project a favorable praise and expressed interest in its development for the benefit of the military agency.

Currently, the Situation Center takes necessary measures to fine-tune interaction with all the participants involved in the process of maintaining the customer's helicopter fleet in good condition. In addition, the regulatory framework and methodological support are being improved to launch a commercial operation of the software by the entities of the Russian Ministry of Defense.

"The Situation Center takes the Russian Helicopter's after-sale maintenance system to a fundamentally new level, it creates a single information space for all the participants in that process. The Center's work will accelerate the decision-making process, will make it possible to improve available supplies of replacement parts and assemblies, and reduce the down time of helicopters due to technical reasons. Finally, this will allow an expansion of our range of services, introduce new service products, and enhance the quality of customer service," according to Vladislav Savelyev, Deputy General Director for Sales at the Russian Helicopters Holding Company.

The Situation Center's facilities also make it possible to examine reliability of component parts, check the volume and movement of repair supplies in the operating organization, and schedule service operations with the involvement of the industry.

The developed system has an open architecture and this allows to use it for any type of helicopter equipment, including for new models. By present time, it is planned to create a similar system for the benefit of foreign clients as well, which will strengthen the holding's positions on the foreign market.

Changes in the concept of military equipment service is brought in line with the plans of the Russian helicopter holding company to promote its products and after-sales service network on conventional markets and armament markets that are new for Russia. Nowadays, the Russian Helicopters consider helicopter lifecycle, a comprehensive service, as its main product. And this commercial term takes more and more new meanings.

Currently, technical support of equipment delivered to the customer is not just maintenance and overhaul, but, over the longer term, upgrade as well. This is a totally different business model other than "sell and forget". Over the years during which a new comprehensive product has been developed and promoted, understanding of the helicopter price has also changed. The life cycle today is understood even more broadly—the cost of a helicopter inevitably includes expenditures for R&D and certification. That means that the life cycle is launched long before a helicopter is sold

starting from December, 2016, Russian Helicopters and the Russian Ministry of Defense signed a contract on maintenance and repair of helicopters in use during their life cycle. This scheme really made it possible to minimize the risks in governmental armaments procurement and enhance the technical availability of the Defense Ministry's helicopter fleet.

The point in signing life cycle contracts is that the helicopters types are assigned to the holding's enterprises that they are expected to service, and this includes inter alia repair

The Situation Center's facilities also make it possible to examine reliability of component parts

Currently, an ever larger part is assigned to training and retraining of flight and technical personnel in this product. In the short term, an international flight training center of Russian Helicopters will be opened in Bataysk, Rostov Oblast.

Since the beginning of this year the holding company has been implementing a new plan for maintenance of military helicopters; and creation of the Support Situation Center based on the company logically continues this policy of Russian Helicopters. Thus,

under plant conditions and delivery of components to the operating organizations, prompt recovery of aviation equipment under operating conditions. Consequently, plants which are parts of Russian Helicopters Holding Company will be given an opportunity to schedule their workloads so as to ensure operation of products supplied to the military agency. Over the longer term, we are planning to use this scheme of work with commercial operators and foreign customers of Russian helicopter equipment.

Nikolay Korobov

New serious step in the construction of a new generation of helicopters with the highest speeds

A Russian High-Speed Helicopter

In the framework of the Army-2017 International Military-Technical Forum, Russian Helicopters holding company signed a contract with the Ministry of Defense of the Russian Federation to develop a concept for a high-speed military helicopter.

The two-years contract envisions work to determine the technical appearance of a future high-speed military helicopter. Based on the results of that work, the appearance of the new machine is to be determined while developing a technical assignment to carry out experimental design work.

The design office that is part of Russian Helicopters holding company at present has already begun this work.

"Both we and the Ministry of Defense have considered the data got in the course of experiments and the experience obtained to be sufficient for moving on to the next step—developing a high-speed military helicopter. The contract that we have finalized today is a serious step in the construction of a new generation of helicopters with the highest speeds and technical flight characteristics," noted the general director of Russian Helicopters holding company, Andrey Boginskiy, at the conclusion of signing.

The matter of the engine

The announcement by the head of the helicopter holding company immediately brought a cheering response from aviation engine manufacturers. Aleksey Grigoryev, general designer of UECC Klimov, Ltd., based in St. Petersburg, stated that "The engine for the high-speed helicopter can be created in a year."

"If we get an order, we could rather quickly, practically in a year's time, present the first experimental specimen of the VK 2500M engine," he said.

The VK 2500M is being developed based on the VK 2500 turboshaft engine, created in 2001, which began to be used in Mi 8/Mi 17 helicopters to replace Ukrainian engines.

The United Engine Corporation (UEC) attaches great importance to developing the segment of helicopter turboshaft engines. As part of an import replacement program, UEC recently arranged for the construction in Russia of the VK 2500 engine, which is installed in most "Mi" and "Ka" helicopters. These powerful plants were previously produced in Ukraine. UEC is increasing the pace of finalizing the VK 2500 engines, which today are being assembled completely from Russian components.

In a "heavier" power class than the VK 2500, the TV7 117V engine has been developed, intended for the Mi 38 helicopter. This engine gives the helicopter flight safety, including during extreme situations, and also expands the operating radius by reducing fuel consumption. Mass production of the TV7 117V has already started.

As Aleksey Grigoryev previously announced, the VK 2500M engine differs from its predecessor VK 2500 in nearly every way. "About the only thing it has in common with its ancestor the VK 2500 is the name. That is, other than the name it differs from the earlier engine in nearly every way," the general designer said.

Among the features of the new engine are increased power with reduced weight, modularity of design, and the ability to operate under technical conditions. According to UEC representatives, the engine being developed will be able to be installed not only in the high-speed helicopter but also in already existing units of helicopter equipment. It is worth noting that on 24 August the Deputy Chief of the Ministry of Defense of the Russian Federation, Yuriy Borisov, set a major requirement of his agency for the high-speed helicopter: "The Ministry of Defense long ago set the task for the Russian helicopter people, for Russian Helicopters holding company, to create a new conceptual platform for a military Army helicopter that would have other speed characteristics, so its cruising speed would be up to 400 km/h."

UEC has already developed and successfully tested one modification of the VK 2500—the VK 2500PS, with improved operating characteristics. Solutions have been implemented in the engine that allow managing the resource characteristics depending on specific operating conditions. The basic application of the VK 2500PS is the civilian helicopter Mi 171A2.

"At the same time, the VK 2500M still re-

MoD set the task for RH, to create a new conceptual platform so its cruising speed would be up to 400 km/h

mains a classic gas turbine engine. The next step, a most fundamental one, is to shift to a really promising product, the PDV. I won't classify it by generations; however, I'll note that we are striving to make not just an evolutionary but a revolutionary step in the development of power plants for helicopters," said Aleksey Grigoryev.

With the PDV the plan is to use new design materials as much as possible, including nonmetallic materials. In creating the PDV we propose to make extensive use of our operating experience with the VK 2500M.

In his presentation the general designer noted the importance of developing technologies for expanding the possibilities of the new engines. According to the UEC representative, these are for the most part additive technologies, which are "the main driving force pushing designers to new solutions". The rapid development of drone technologies is also very important, since the requirements for engines for piloted and unpiloted aircraft are fundamentally different.

"Another direction in the development of helicopter technology that we are observing today is replacing the main gearbox with an electric drive. With this design in the power plant there is no longer an engine and main gearbox but a direct-current motor, which turns the rotor directly. Such solutions already exist and one way or another it's being worked out," said Aleksey Grigoryev.

"In contrast to many other areas of engine construction, for a number of reasons helicopter engine construction is very conservative. While various types of airplanes, for example, commercial airliners, are already lifted into the air by fifth-generation engines, modern helicopters that are in common use now both in Russia and abroad possess engines of the third or fourth generation," said Aleksey Grigoryev. For a long time the developers of power plants for helicopters have not been able to let themselves get away from the tried-and-true solutions. Nevertheless, the era of engines made in past decades is coming to an end one way or another, and now we are doing development on a fundamentally new engine."


ВЕРТОЛЕТНАЯ
ИНДУСТРИЯ

Mi-17V-5

The world market of electronic warfare and it is estimated at $ 14 billion a year

When each electron has a value

In the area of high information technologies, more and more shifts are being made in the issues of the coexistence of modern states. In the most immediate sense, this refers to armed struggle, the key element of which is the fight against the use of radio electronics. Just one of the many confirmed facts that the survivability of modern aircraft due to electronic warfare (EW) complexes is increasing by 25 percent, speaks in favour of such a statement.

This is a game for adults

The capacity of the market for special radio electronics is enormous. Only one part of it is the world market of electronic warfare and it is estimated at $ 14 billion a year. Moreover, this is far from being a limit. While expecting an average annual growth of about four percent – by 2025 it should be $ 19 billion, which is an indication that here, as they say, they play in an adult way, which implies serious organizations with a serious scientific and technical basis. For example, in 2016, enterprises belonging to the Russian Concern Radio-Electronic Technologies (KRET) JSC, within the framework of the state defence order for the division of the EW carried out works for as much as 26.7 billion rubles.

Undoubtedly, there are global trends in the development of military-purpose radio electronic systems, at the same time, each market participant sees their own development paths in it and determines the vector of their own improvement on this basis. For example, for Russia, the primary task is to create a single information space for almost 50 existing radio electronic warfare complexes.

"Vitebsk", "Rychag", "Khibini"...

The key place on the Russian market of proposals for electronic warfare systems (60 percent) is rightly owned by KRET. In most cases, it is a monopolist of the industry in the development and supply of electronic warfare equipment with electronic weapons reconnaissance and control systems.

The largest Russian holding company in the electronic industry KRET was established in 2009. The main activities: development and production of systems and complexes of onboard radio-electronic equipment for civil and military aviation, airborne radar stations, state recognition facilities, electronic warfare complexes, measuring equipment for various purposes, electrical connectors, as well as connectors and cable assemblies. A significant volume of the proposed range of the company's products consists of systems installed on most types of aircraft, including the Mi-8, Mi-26, Mi-28, Mi-35 and Ka-52 helicopters.

"Vitebsk", "Rychag", "Khibini" – the names that recently unambiguously point to modern electronic warfare systems, perfectly demonstrated their qualities, both on tests and in real conditions. "Vitebsk" is a complex of individual protection, which is equipped, including helicopters Ka-52 and Mi-8MT, demonstrated unique capabilities in testing with the anti-aircraft system "Igla". None of the 20 "Igla" (the name means "needle" in Russian) shot into the helicopter with the Vitebsk system hit the target; at a certain distance, they all changed course, sharply gained altitude, where they exploded without harming the target they were sent to.

Expanding fleet capabilities

Another direction of development of radio electronic means made by the Radio-Electronic Technologies Concern electronic warfare systems, reconnaissance and target designation, mounted on aircraft. A good example would be the completion of the Katran helicopters, during which they receive an advanced radar station with an active electronically scanned array (AESA). Judging by the existing open data, the new radar can detect not only ground targets, but large marine objects at a distance of up to 180 kilometres.

"Vitebsk", "Rychag", "Khibini" – the names that recently unambiguously point to EW systems, perfectly demonstrated their qualities, both on tests and in real conditions

None of the 20 “Igla” (the name means “needle” in Russian) shot into the helicopter with the Vitebsk system hit the target

In continuation of the marine theme, it is important to note one more area of work of the Concern Radio-Electronic Technologies, the creation of flight-navigation complexes (FNC), including a unique Soviet and Russian helicopter, which for many years is rightfully considered as a threat of submarines Ka-27PL. Currently, these type of aircraft are being modernized, the total number of which in the Russian Navy aviation is more than 80 units. A digital FNC of the open architecture developed on the basis of PNK-37, which are operated by the Ka-52

What do partners have?

As it was said, in the world market of electronic warfare, with a volume of about $ 14 billion a year, organizations with a serious scientific and technical reserve work. Among the western leaders are: American (Lockheed Martin Corporation, Northrop Grumman Corporation, The Boeing Company, Raytheon Company, ITT Corporation, BAE Systems), European (Thales Group, Elettronica, Indra) and Israeli manufacturers (Elta Systems, Rafael).

This indicates that the station operates in both millimetre and centimetre ranges; moreover, it provides the ability to map the terrain, which greatly simplifies flights in difficult weather conditions at night.

Thus, the Katran, which are new attack helicopters designed some time ago for the French landing helicopter carriers Mistral, will significantly expand the capabilities of the Russian aircraft carrying cruiser Admiral Kuznetsov, and will also create the prospect of building our own helicopter carriers.

Alligator helicopter will be installed on the helicopter. The modernized machine incorporates modern types of real-time information transmission both to ground or ship command posts and to other helicopters. The aircraft is equipped with a new radar command-tactical system developed by t JSC Phazotron (Phazotron-NIIR), including new acoustic and magneto metric systems, a radio reconnaissance system, an information and computer system and an on-board radar Kop'e-A with an active phased array antenna.

In the USA, according to the AST program, Northrop Grumman conducts research work on the development of solid-state broadband active electronically scanned arrays (AESA) capable of performing radar and EW tasks in the centimetre wavelength range. As part of the creation of a new-generation interference (NGJ) station for the EA-18G Grouler jamming aircraft commissioned by the US Navy, Raytheon is developing a solid-state broadband AESA of the decimetre and centimetre wavelength ranges.

Military transport helicopters will also receive a complex of individual protection

> The technological cycles of foreign countries in the field of electronics development are somewhere between three or five years long, so we need to take this into account

Another American company, BAE Systems, developing future technologies for the military, sees electronic warfare as a key element shaping the character of the future battle. Currently, the company is engaged in the development of the ARC anti-radar program. At the same time, measures to miniaturize EW systems for installation on attack helicopters, aircraft, drones and cruise missiles are perhaps the most relevant in the company.

The development of data transmission systems is one of the promising areas for leading radio electronic companies, which are the market leaders. As an example, the new technology developed by Hughes Network Systems can significantly increase the use of satellite communications on helicopters, which will provide target designation beyond the line of sight. Currently, the company is ready to organize the equipment production. During the show, which took place at the end of 2016, the company introduced equipment that provided the ability to continuously broadcast HD-video via satellite communications.

According to the representatives of Hughes Network Systems, this system, due to its small size, can be installed on any helicopter in less than 15 minutes. Negotiations are currently underway with Northrop Grumman and Boeing for the integration of technologies into the MQ-8C Fire Scout Unmanned Aerial Vehicle. It is based on the lightweight multipurpose helicopter Bell 407, as well as the V-22 Osprey.

It is impossible to stay in the same place

Judging by the level of development of modern means of electronic warfare, Russian industry is in a competitive position, and this shows that the country can lead an independent policy. According to Yury Mayevsky, Deputy General Director for R & D and Innovations and the General Designer of Concern Radio-Electronic Technologies (KRET), Russia has to meet the challenges of countering the most effective, technologically advanced and intelligent command and control systems of the US troops and weapons and NATO countries, thus providing a so-called asymmetric response. Therefore, in the field of electronic warfare, it is impossible to stay in one place, domestic developers and manufacturers of equipment for electronic warfare are compelled to go forward all the time.

Yury Mayevsky: “The technological cycles of foreign countries in the field of electronics development are somewhere between three or five years long, so we need to take this into account and develop conflict-resistant complexes that do not lose their effectiveness for the duration of operation, until their planned deep modernization begins.

As for the prospects, one of the biggest tasks that we are solving today is import substitution, which means the transition to the domestic electronic component base and components. Measures on import substitution allow to compensate negative aspects of sanctions. At the same time, they provide opportunities for implementing design ideas. Today, we have a number of completely new solutions from the standpoint of the design, efficiency and reliability of the EW equipment being developed.”

El nuevo helicóptero Ka-62 fue desarrollado teniendo en cuenta las normas rusas e internacionales de aeronavegabilidad

Ka-62. La gracia civil de Helicópteros de Rusia

El prototipo del nuevo helicóptero se presentó por primera vez en "HeliRussia-2012" y se convirtió en un estreno histórico tanto para la exposición como para el equipo de desarrollo internacional. El helicóptero mediano Ka-62 multi-propósito del holding "Helicópteros de Rusia" de inmediato atrajo la atención de los especialistas. El conjunto de características técnicas, económicas y operativas de esta máquina son tales, que la mayoría de los participantes del mercado han predicho un gran futuro para ella. El programa de desarrollo del helicóptero sigue siendo una de las principales prioridades del holding en la clase de máquinas con un peso de despegue de 6–7 toneladas. El helicóptero de "nueva formación", es para la rama de producción nacional, tanto desde el punto de vista de los principios de diseño como de la experiencia de la amplia atracción de diseñadores extranjeros y fabricantes de equipos, así como en términos de un conjunto de soluciones, la composición de esa inolvidable presentación de mayo , que antes de que comenzaran las pruebas de vuelo en abril de 2016 estaba invisible en la sombra de su expositor. Y presisamente este año, cuando "HeliRussia" se habrió en Moscú por décima vez, el proyecto número uno de helicóptero mediano civil fue a la etapa final de las pruebas, previo a la certificación. Los vuelos de demostración están previstos para este año. Mientras tanto, a principios de este año en el polígono de prueba en Primorye los vuelos de nuevos helicóteros ya se han convertido en un patrimonio del público amantes de helicópteros.

Historia del helicóptero

A pesar de su origen militar, el helicóptero Ka-62 casi de inmediato se le pronosticó el éxito en el sector civil. Recordamos, que el proyecto Ka-62 se remonta al Ka-60. El programa para el desarrollo de la versión militar del Ka-60 y su versión civil del Ka-62 fue lanzado en 1984. El primero fue diseñado originalmente como un helicóptero de transporte militar, pero finalmente los autores del proyecto llegaron a la conclusión de que se pueden crear helicópteros civiles de usos múltiples sobre la base de esta plataforma. Para aumentar la eficiencia económica y operativa, el nuevo helicóptero debería tener una velocidad de crucero relativamente alta, un menor consumo de combustible en comparación con la tecnología existente y un mantenimiento menos intensivo en mano de obra. Junto con los ingenieros de TsAGI — los ingenieros de OD "Kamov" llevaron a cabo una serie de estudios en el campo de la aerodinámica, lo que ayudó a reducir significativamente la resistencia del aire y optimizar el funcionamiento del rotor.

La máquina fue creada teniendo en cuenta los más estrictos requisitos internacionales para la certificación de helicópteros comerciales. El Ka-62 llevará la máxima multitarea comercial y de servicio para que sea interesante a la más amplia gama de clientes. Está prevista la salida del Ka-62 para el transporte VIP, transporte médico, búsqueda y rescate y modificaciones de patrulla.

El Ka-62 está equipado con dos motores turboejes franceses "Turbomeca Ardiden 3G" con una capacidad de 1776 h. p., y en modo de emergencia — 1941 h. p. La potencia excesiva de los motores en modo de emergencia le permite continuar el vuelo incluso si uno de ellos se detiene. Además, estos motores fueron elegidos también debido al uso en ellos del sistema FADEC. El equipo digital especial elimina la mayor parte de la carga del piloto para controlar los parámetros de la instalación de fuerza y controlarla.
El Ka-62 estará equipado con la aviónica más actualizada — KVO-62 con monitores LCD producidos por la compañía de San Petersburgo "Transas". Además del sistema de gestión del motor, incluido en la aviónica, en el Ka-62 se incluirán una serie de otros sistemas. Por otra parte vale la pena destacar el complejo de navegación con el apoyo de los sistemas de navegación GPS y GLONASS (en el futuro, es posible añadir la compatibilidad con el Galileo europeo). Al elegir el equipo para la completación de la aviónica del Ka-62, los diseñadores trataron en primer lugar minimizar la carga en la tripulación y reducir el costo de mantenimiento electrónico.

Para mantener la competitividad con los modelos occidentales, los Ka-62 estarán equipados con un rotor de cinco palas, diseñado para reducir el ruido y las vibraciones. El chasis principal en los carenados es otra diferencia del Ka-62 modernizado. En el vuelo, el chasis principal será levemente removido en los carenados, y la rueda de cola — en el carenado bajo la viga del rotor de dirección. De particular interés es el rotor de cola del helicóptero Ka-62. Por primera vez en la práctica nacional, será concluido en canal de anillo. En combinación con el nuevo diseño del rotor en sí, aumentará significativamente la eficiencia del trabajo. En última instancia, esto influirá en la economía de funcionamiento — el rotor de dirección tendrá menos potencia, lo que reducirá el consumo de combustible.

Como resultado, el nuevo helicóptero Ka-62 fue desarrollado teniendo en cuenta las normas rusas e internacionales de aeronavegabilidad, y se puede operar a temperaturas desde menos 50 hasta más 45 grados. El Ka-62 puede transportar hasta 2200 kg en la cabina de carga o hasta 15 personas a una velocidad de hasta 310 km/h a una distancia de hasta 720 km.

Listo para funcionar

Como ya sabemos, las pruebas de vuelo del Ka-62 en abril del año pasado fueron precedidas por una serie de pruebas en el modo de carrera terrestre. Con el primer levantamiento en el aire del primer prototipo OP-1, se comprobó el funcionamiento de los sistemas de suministro de energía y el equipo de a bordo de la aeronave y su rendimiento general. El helicóptero despegó del suelo, y estando en el aire realizó vueltas y guiñadas por cabeceo y bandazo, y después aterrizó. A lo largo de 2016, como parte del programa de la entrada en funcionamiento del helicóptero Ka-62, la SAA EAA "Progreso" realizó pruebas por etapas del prototipo junto con el desarrollador — SAA "Kamov" — con miras a una comprobación más exhaustiva de todos sus sistemas y equipos.
Y en el transcurso del año pasado, se adoptaron medidas organizativas y tecnológicas para ampliar la producción relacionada con el próximo aumento significativo de sus volúmenes, en el marco del programa federal de reequipamiento técnico de SAA EAA "Progreso". Simultáneamente, en la fábrica de Primorye se están ejecutando proyectos para reconstruir la industria mecánica, compuesta y galvánica, los talleres de preparación de producción y otras divisiones de la empresa. Todas las instalaciones listadas se pondrán en operación industrial en 2018.

Por el momento, los trabajos en el nuevo Ka-62 están en pleno apogeo. En la cadena industrial, se incluyeron desarrollos innovadores de muchas empresas de alta tecnología de industrias relacionadas.

Así, en la Exposición Internacional de Armas y Tecnologías de Defensa "ArmHiTec-2016", que se celebró del 13 al 15 de octubre en Ereván, se presentó el acristalamiento para la cabina del piloto del helicóptero Ka-62. El acristalamiento del parabrisas resistente a los pájaros con un revestimiento multifuncional, tiene una alta resistencia a las cargas dinámicas y proporciona protección de la tripulación de cabina de los efectos nocivos de los factores externos, mejora las características tácticas y técnicas del helicóptero y aumenta el recurso de resistencia del acristalamiento.

Como dijo el Director Gerente de la Empresa de Aviación de Arsenyev "Progreso" de Sazykin N.I. D. Yuri Denisenko, hoy la empresa está tecnológicamente preparada para la producción en serie del helicóptero Ka-62. La empresa ya ha producido varios prototipos de esta máquina, que también pronto pasarán las pruebas planificadas.

This year Mil Cup was dedicated to ambulance aviation, which is actively developing in Russia

An Ambulance Competition

First week autumn saw spectacular and fascinating Mil Design Bureau Cup helicopter competitions at the Podushkino Helipark for a prize from the Russian Helicopters holding company. Taking place annually, these competitions focus on one current theme each time. This year the "Cup" was dedicated to ambulance aviation, which is actively developing in Russia. Many companies, comprising the Helicopter Industry Association (HIA), actively take part in implementing the government programs in this area.

The competitions for this year's Mil Design Bureau Cup took place in stages and consisted of tasks analogous to those that must be completed by volunteers from search and rescue organizations, medical teams, and rescue helicopters.

In the framework of the first stage of the competition for the Mil Design Bureau Cup, participants had to solve tasks in navigation, conducting a search and evacuation of a purported victim. The second stage included rendering first aid to the victim who had fallen into an emergency. Medical evacuation was the third stage of the competition, for which a special manikin was used that imitated the victim, along with a vessel filled with water that allowed an assessment of how delicately that responsible process was carried out.

Five teams took part in the competitions, representing the medical air service HeliMed, the International Academy of Helicopter Sport, the Nizhniy Novgorod Territorial Center for Medical Disasters, the Central Aviation Search and Rescue Center, and a team from the amateur pilot Maksim Zamotin.

The teams competed in helicopters of both foreign and domestic production, including

the new Russian Ansat helicopter with its medical module.

The organizer of the Mil Design Bureau Cup competition has traditionally been the company Russian Helicopter Systems; the general sponsor has been the Russian Helicopters holding company; and the other sponsors include the CHKALOV and Tekhnoavia companies. The event took place with the support of the Helicopter Industry Association and the Angel helicopter search and rescue brigade.

Direct broadcast of the competitions took

place during the entire event at the HIA site. Helicopter sport fans could see the helicopter flights and the teams' implementation of their tasks from various angles, including from action cameras hidden on the helicopters.

Upon completion of the competitions all teams received souvenir gifts and certificates of participation. The competition prize winners were awarded valuable gifts from the Russian Helicopters holding company. The prize ranking at the end of the competitions were distributed as follows:

First place – International Academy of Helicopter Sport (Maksim Sotnikov, Oleg

Puodzhyukas, Anton Rusanov, and Aleksandr Rezchikov);

Second place – Nizhniy Novgorod Territorial Center for Medical Disasters (Oleg Saburov, Sergey Razoryonov, Roman Gorbunov, and Roman Yanin);

Third place – HeliMed Medical Air Service (Andrey Khoroshaylo, Ruslan Miftakhov, Dmitriy Novikov, and Tatyana Fillipova).

All the teams showed knowledge, mastery, and coordination of actions under extreme conditions. The Mil Design Bureau Cup

demonstrated not only the need for further development of ambulance aviation but also the importance of involving amateurs and volunteer search and rescue activist brigades in this process and the important role of familiarity of air medical brigades with new medical and aviation equipment.

At the solemn ceremony for awarding the winners, Aleksandr Mikhaylov (of the Angel Helicopter Search and Rescue Brigade) was especially noted for his contribution to arranging the event and, of course, for the search and rescue of people.

It is noteworthy that the new Ansat Russian helicopter with medical module took part in the competitions; this helicopter was turned over at the opening of the competitions to the company Russian Helicopter Systems by a representative of the Russian Helicopters holding company. The machine received its baptism by fire and will be soon moved to Kurgan region to carry out medical evacuation work.

At the completion of the first stage, “Navigation”, the Challenge Cup was awarded to the team from the International Academy of Helicopter Sport – Maksim Sotnikov and Oleg Puodzhyukas.

"Ansat" es capaz de mejorar significativamente la calidad de la atención médica de emergencia de Rusia

Una nueva página en el desarrollo de la aviación sanitaria de Rusia

Hoy en Rusia, de acuerdo con los programas estatales "Desarrollo de la aviación sanitaria" y "Prestación oportuna de la atención médica de emergencia a los ciudadanos que residen en regiones remotas e inaccesibles de la Federación de Rusia" se está desarrollando progresivamente la aviación sanitaria. La lista de las noticias más recientes de verano y principios de otoño de este año habla de un fuerte aumento de la intensidad de suministro de helicópteros sanitarios a la vez en varias regiones de la Federación Rusa.

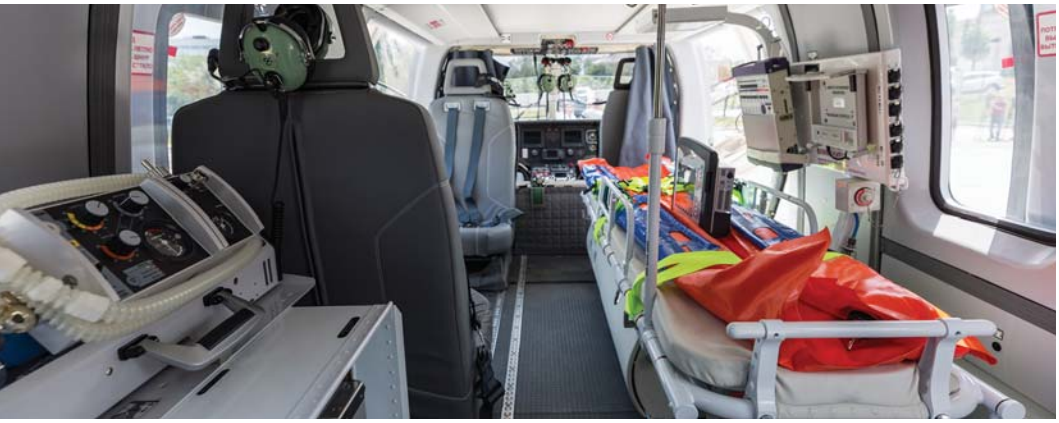
Asimismo, a principios de septiembre a disposición del Centro Regional de medicina de desastres de Kurgán en el marco de realización del proyecto de "Prestación oportuna de la atención médica de emergencia a los ciudadanos que residen en regiones remotas e inaccesibles de la Federación de Rusia" llegó el nuevo helicóptero con múltiples funciones, "Ansat".

El helicóptero con su módulo médico a bordo ha sido proporcionado al centro regional de medicina de desastre tras la subasta organizada de forma electrónica en los servicios de aviación para la prestación de asistencia médica con el uso de la aviación por la S.A. “Sistemas de Helicópteros de Rusia”. El módulo médico del helicóptero ofrece la posibilidad de proporcionar la primera asistencia médica y de emergencia a las víctimas de desastres y calamidades y la preparación de éstas para su transportación a las instituciones básicas de salud. Además, se han creado a bordo todas las condiciones para la reanimación, la terapia intensiva y el control de las funciones vitales del cuerpo del paciente durante su transportación.

La región administrativa de Kurgán se encuentra entre las 34 regiones de la Federación Rusa, donde se está ejecutando el proyecto prioritario "Desarrollo de la aviación sanitaria" aprobado por el Presidium del Consejo presidencial de la Federación de Rusia en octubre del año pasado. En total del presupuesto federal y regional en el 2017 fueron asignados 120 millones de rublos para este proyecto. Además de las horas de vuelo, con estos fondos se ha creado la infraestructura necesaria en la región - se han construido áreas de aterrizaje en los distritos de Makushinskiy, Shumijinskiy, Petujovskiy, Mokrousovskiy, Tseliniy, Katayskiy y Shatrovskiy y en la ciudad de Shadrinsk.

El 25 de septiembre, en la región de Pskov, también comenzó su trabajo el nuevo helicóptero ruso, “Ansat”, convirtiéndose en el primer helicóptero sanitario de nueva generación en dicha región. Este fue entregado de acuerdo con el programa de desarrollo de la aviación sanitaria en Rusia, su operador es la empresa S.A. “Sistemas de He-

Los helicópteros médicos "Ansat" pueden basarse tanto directamente al lado del hospital...



licópteros de Rusia". El helicóptero se utiliza basado en la Entidad Estatal Presupuestaria "Hospital Clínico Regional de Pskov".

El desarrollo de la aviación sanitaria en la región de Pskov es de gran importancia debido a las características geográficas, así como al declive en la densidad de la población y a la infraestructura de transporte subdesarrollada. Estos factores dificultan la prestación de la atención médica de emergencia por medio del transporte de carretera tradicional.

El helicóptero médico "Ansat" es capaz de mejorar significativamente la calidad de la atención médica de emergencia en la región de Pskov. Según las estadísticas, durante 7 meses del presente año, la mortalidad en la región por causas externas disminuyó en un 20% en comparación con los indicadores del año pasado, y el uso de un helicóptero médico moderno sin duda influirá positivamente en la mejora de estos indicadores.

Gracias al uso del helicóptero "Ansat" con el módulo médico moderno a bordo, el equipo médico será capaz no sólo de transportar el paciente según lo previsto, sino también, en casos extremos, tan pronto como sea posible llegar al punto necesario de la región de Pskov, asistirlo y evacuarlo a un centro médico capaz de proporcionar mejor tratamiento. La evacuación médica con ayuda de helicóptero es particularmente importante para las víctimas de cualquier tipo de accidente, los pacientes con ataques cardíacos y cerebrovasculares agudos, así como para la ayuda y asistencia médica a los niños y menores de edad.

Junto con los más nuevos helicópteros ligeros del modelo "Ansat", los helicópteros de la familia Mi-8/17 llegarán a las regiones rusas para cumplir con sus misiones médicas. Asimismo, dos modelos de helicópteros Mi-8 serán utilizados para llevar a cabo los vuelos de la aviación médica a la República de Komi.

Para la prestación de servicios de aviación en la realización de tareas de asistencia médica especializada de emergencia a los ciudadanos residentes en zonas de difícil acceso de la República de Komi, se utilizará la flota del transportista regional "Komiaviatrans".

El servicio de cada helicóptero será efectuado por dos turnos de tripulación de vuelo las 24 horas, el pilotaje será efectuado por pilotos calificados de la compañía "Komiaviatrans", y la formación de las brigadas médicas se encargará el Centro Territorial de Medicina de Desastres de la República de Komi.

... como en el aeropuerto en la estepa cerca de Volgograd

Los helicópteros de la aviación sanitaria de Komi podrán prestar rápidamente la asistencia médica necesaria en las ciudades y regiones de la República, así como, si es necesario, en las regiones administrativas de Kirov y Arjangelsk y en las regiones del Lejano Norte.

En el 2016, fueron rescatados 248 residentes de las zonas remotas

"Las características de este tipo de naves aéreas son perfectas para trabajar en el territorio de la República de Komi. A bordo del helicóptero se cuenta con un dispositivo de ventilación artificial, dispositivo para obtener el electrocardiograma y otro equipo médico extraíble para poder proporcionar una primera atención médica calificada. Simultáneamente, el helicóptero Mi-8 puede transportar hasta 4 pacientes en cama y 8 pacientes en asiento", confirmó el Ministro de Salud de Komi Dmitry Berezin.

Además, el helicóptero tiene la capacidad de trabajar en horas nocturnas, lo que amplía significativamente la posibilidad de proporcionar la asistencia médica de emergencia. El Mi-8 está fabricado para confrontar los cambios climáticos de la zona del norte, así como una fuente adicional de combustible, que le permitirá volar en distancias considerables y bajo cualquier condición meteorológica.

En total, según datos del contrato estatal, al transportista aéreo le fueron adquiridas 1013 horas de vuelo.

Además, señalemos también que en la actualidad, si un paciente de una aldea remota se dirige a cualquier institución médica pidiendo ayuda en estado grave o que su vida está en peligro, luego de habérsele verificado el diagnóstico, la solicitud al respecto llega al Centro Territorial de Medicina de Desastres de la República de Komi, y luego se evalúa la metodología de su evacuación médica.

El uso de la aeronave para la ejecución de tareas sanitarias es coordinada por el médico asistente y el Jefe del Centro Territorial de Medicina de Desastres de la República de Komi y se utiliza sólo en condiciones de peligro y amenaza para la vida e incapacidad de utilizar el transporte terrestre.

No olvidemos, que la República de Komi pertenece a los territorios de la Federación Rusa, en las cuales en su mayoría está constituída por zonas pobladas remotas y de difícil acceso. La baja densidad de población, su gran superficie y la cantidad insuficiente de carreteras, determinan la necesidad de utilizar naves aéreas sanitarias. La subdivisión de aviación sanitaria forma parte del Centro Territorial de Medicina de Desastres de la República de Komi. La sede central se encuentra en la ciudad de Syktyvkar, tiene sucursales en las ciudades de Pechora (base del centro de helicópteros) y Ujtá.

En el año 2016, el Centro Territorial de Medicina de Desastres de la República de Komi realizó 1660 tareas sanitarias, 240 de las cuales con el uso de naves aéreas. Como resultado de las medidas tomadas para mejorar la disponibilidad de la atención médica en el 2016, fueron rescatados 248 residentes de las zonas remotas y difíciles de acceso con enfermedades cardiovasculares que necesitaron evacuación médica de emergencia y 30 personas que habían sufrido lesiones en accidentes de carretera.

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