ВЕРТОЛЕТНАЯ ИНДУСТРИЯ

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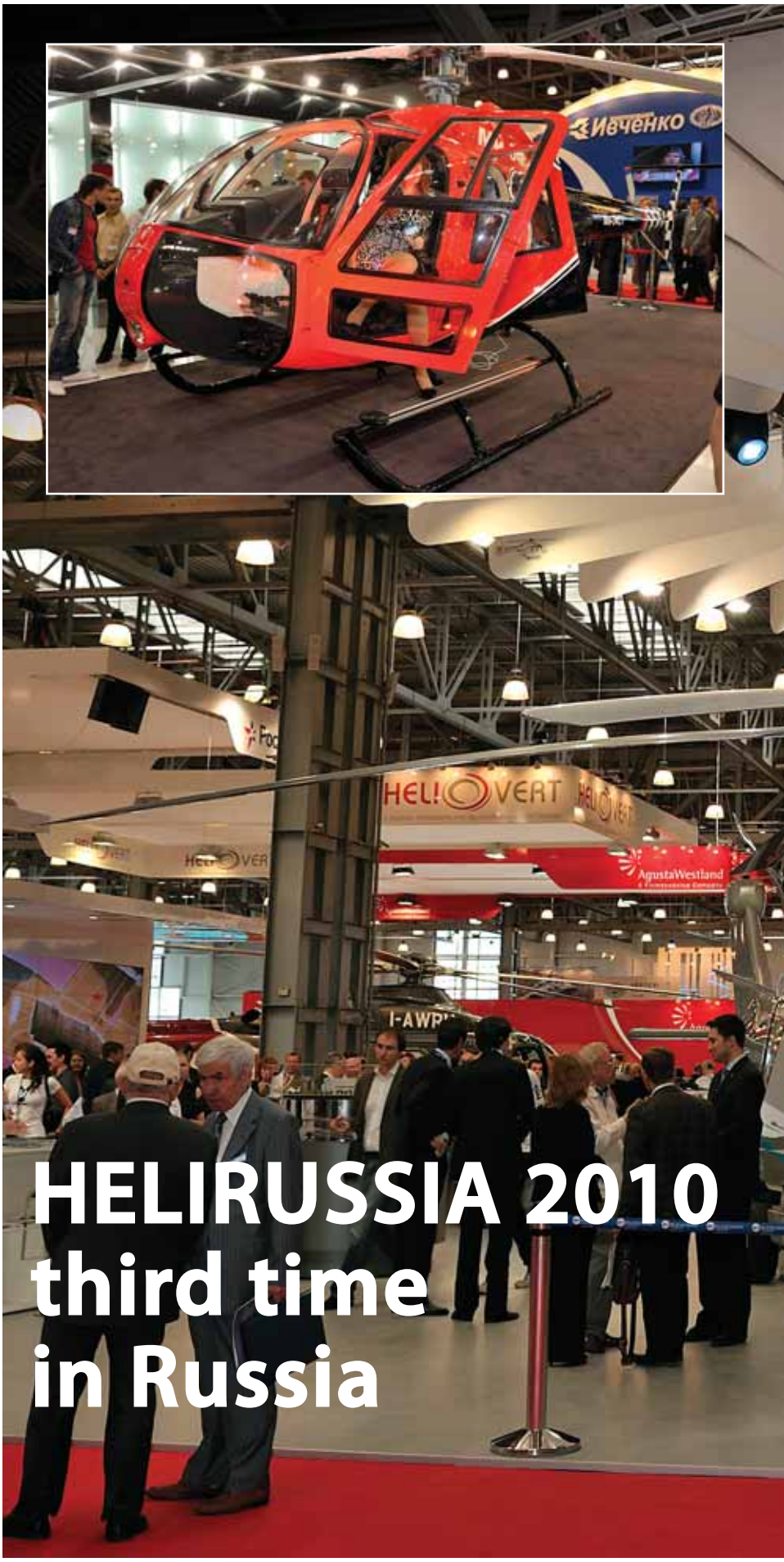
February

HELIRUSSIA 2010 third time in Russia

3rd International Helicopter Industry Exhibition HELIRUSSIA 2010
May 20 – 22, 2010, Moscow, International Exhibition Center "Crocus Expo"
Pavilion No. 1, Hall No. 4



According to the decree of the Government of the Russian Federation No. 1275-r of September 2, 2009, the 3rd International Helicopter Industry Exhibition HELIRUSSIA 2010 took place on May 20 - 22, 2010 on the Crocus Expo IEC grounds. The Exhibition was organized by the Ministry of Industry and Trade of the Russian Federation on the initiative of the Helicopter Industry Association. The planner was Russian Helicopter Systems JSC. The exhibition organizing committee was headed by Denis Manturov, Deputy Minister of Industry and Trade. The title sponsor of HELIRUSSIA 2010 was OPK OBORONPROM JSC, the official sponsor was Eurocopter Vostok.

156 companies from 14 countries (Russia, Ukraine, Lithuania, the USA, Great Britain, France, Sweden, Italy, Germany, Poland, Libya, Slovakia, Belgium, and Israel) took part in the Exhibition this year. The first Exhibition hosted 129 companies from 10 countries to present their expositions, including 22 foreign companies; the second Exhibition involved 144 companies from 16 countries, including 32 foreign ones. This year 40 overseas companies took part in the Exhibition.

HELIRUSSIA 2010 brought together developers and manufacturers of helicopters, simulators and spare parts, cockpits and special equipment for helicopters. It also attracted companies engaged in ground support and radar control, equipment of helipads, maintenance centers and fuelling complexes, transport, leasing and insurance companies as well as helicopter equipment dealers. For the first time the Gyros 1, Gyros 2, Inspector and MAI-208 gyrocopters were on display.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15 helicopters were demonstrated at the Exhibition: MI-28 NE (Night Hunter), Ansat, MI-34S1, MI-2, EC175, AW139, AW109, Bell 407, MD520, HummingBird 260L (Vertical Aviation Technologies), A600 Talon (Rotor Way), AK1-3 (Aerocopter Design Bureau), R44 (3 pieces). Among them Eurocopter's EC175 and AgustaWestland's AW139 were for the first time presented to the Russian public. Helicopters HummingBird 260L of Vertical Aviation Technologies, A600 Talon of Rotor Way, AK1-3 of Aerocopter Design Bureau were novelties among full-scale exhibits of the HELIRUSSIA.

Cables and letters of congratulation addressed to participants, organizers and visitors to the Exhibition were received from Dmitry Medvedev, President of the Russian Federation, and Sergey Ivanov, Deputy Prime Minister of the Russian Federation, Vladislav Putilin, First Deputy Chairman of the Military-Industrial Commission at the Government of the Russian Federation, and Sergey Prikhod'ko, Assistant to the President of the Russian Federation.

The following officials took part in the opening ceremony of the Exhibition which took place on May 20, 2010 at 12:00 in pavilion No. 1 of Crocus Expo IEC.

Leonid Reiman, Adviser to the President of the Russian Federation,

Denis Manturov, Deputy Minister of Industry and Trade of the Russian Federation,

Valery Okulov, Deputy Minister of Transport of the Russian Federation

Andrey Reus, Director General of OPK OBORONPROM JSC

Michael Kazachkov, Chairman of the Board of the Helicopter Industry Association, and others.

Leonid Reiman read the address of Dmitry Medvedev, President of the Russian Federation, to visitors and participants of the Exhibition. The message said, in particular, that "Having earned the attention of major helicopter manufacturing companies from Russia and other countries, HELIRUSSIA 2010 has become one of the most prestigious international events in this high-tech industry". "Today, based on the strong connection between science and production, based on the development of innovations, we need to step up our efforts to modernize industry's enterprises and encourage mutually beneficial cooperation with our foreign partners".

Denis Manturov, Deputy Minister of Industry and Trade of the Russian Federation, read the greeting address of Sergey Ivanov, Deputy Prime Minister of the Russian Federation, which highlighted the achievements of domestic helicopter manufacturers: "Capability of the domestic helicopter equipment manufacturers to design and create competitive products constitutes a prerequisite for successful work within the frameworks of priority and innovative development of the country". The greeting says, that "…the Exhibition will contribute to demonstration of high potential of the Russian companies and presentation of the significant investment projects focused on meeting ambitious challenges of the contemporary world".

Andrey Reus, Director General of OPK OBORONPROM stated that HELIRUSSIA 2010 is expanding from year to year demonstrating the growing interest of manufacturers and helicopter operators.

"The helicopter market is one of the most fast-growing markets in the world, and I hope this tendency proceeds", A. Reus said.

He placed great emphasis on the development of cooperation with the global helicopter manufacturers and welcomed the key helicopter players participating in the event :AgustaWestland, Eurocopter, Safran, as well as enterprises of Ukraine. "I think that there will be enough space in this market for all of us, and we will jointly succeed in new equipment manufacturing", A. Reus said.

116 national companies (both subsidiaries of Russian Helicopters, JSC and independent manufacturers and operators from regions) covered a significant number of expositions at the Exhibition. The exhibited military-purpose products most completely displayed national

achievements in this sphere. Russian combat helicopter MI-28NE (Night Hunter) displayed in front of pavilion No. 1 of Crocus Expo IEC was the most impressive exhibit representing military-purpose products.

The Russian exposition representing 18 companies was based on the OPK OBORONPROM joint stand which comprised the Russian Helicopters Holding and the United Engine-Building Corporation.

The second day of the Exhibition, May 21, was announced as the "Russian Helicopters" day when the Holding presented a model range of Russian-made helicopters and options of their application in the regional air transportation. The capability of Russian Helicopters, JSC to produce, deliver and service helicopters and related equipment as well as prospective outlook of the Russian helicopters were on the agenda of the Russian Helicopters for Regional Aviation Conference that aimed to establish closer cooperation with state and commercial operators within the framework of regional aviation development and to outline plans for next-generation helicopters.

On the first exhibition day OPK OBORONPROM and Italian AgustaWestland signed a specification for building the Italian AW139 helicopter assembly shop in Russia. Andrey Reus, Director General of OPK OBORONPROM, and Juseppe Orsi, CEO of AgustaWestland, affixed their signatures to the document. It was this particular model that was displayed at AgustaWestland's stand.

40 foreign helicopter industry companies took part in HELIRUSSIA 2010, including leaders of the global market like Eurocopter, AgustaWestland, Bell Helicopter, MD Helicopters, Motor Sich, Ivchenko-Progress State Enterprise, Turbomeca, Zodiac Data Systems, Becker Avionics, Pall Corporation, Red Box International, Breeze-Eastern, Simplex Manufacturing and others.

At HELIRUSSIA 2010 Eurocopter presented the EC175 helicopter which was designed in cooperation with UTair experts and is equipped with the avionics produced by the Russian Tranzas from St. Petersburg. At the Russian Heli-Expo the helicopter was exhibited in an offshore configuration for 16 passengers.

At HELIRUSSIA 2010 Bell Helicopter announced opening of a network of service centers in July, 2010 in Moscow and St. Petersburg to support its growing fleet. Today 25 Bell helicopters are operated in Russia, this year 6 more helicopters will be delivered and contracts for 3 vehicles are under examination, representatives of the company at the Exhibition informed.

Motor Sich showcased the TV3-117VMA-SBM1V helicopter engine designed by the Ukrainian engine-builders. It allows helicopters to reach record rate of climb and flight altitude. The experts of this company worked for ten years on creation of the engine capable to operate in take-off mode for 30 minutes. During the Exhibition the MI-8 helicopter equipped with new engines set a world record in rate of climb and altitude, having risen vertically to the altitude of 8,100 meters in 13 minutes.

This year, for the first time the French joint stand comprising 13 companies was formed. The exhibitors from France totally numbered 16 companies and outnumbered other foreign countries. That is how the year of France in Russia was marked at the Exhibition.

It has become a tradition for the Helicopter Association International (HAI) to participate in HELIRUSSIA. Its delegation not only represented the Association but also participated in the international conference on Helicopter Market: Reality and Prospects, seminar on Flight Safety: Russian and American Experience and in the Helicopter Industry Association Prize Award Ceremony.

Ambassadors and military attaches of France, Brazil, Bangladesh, Bolivia, Egypt, Republic of Korea, China, Thailand, Peru, Libya, India, Indonesia, Spain, Venezuela, Israel and other countries showed their interest in the Exhibition.

The Exhibition had a vast business pro-

gram. The Second International Conference on Helicopter Market: Reality and Prospects became one of its key events. It was organized by the Helicopter Industry Association and AviaPort agency. The conference considered parameters of the Russian helicopter market from the position of helicopter equipment consumers and manufacturers. Forecasts on the global, American and Russian helicopter markets were presented by Honeywell Aerospace (Charles Park, Director for Marketing Analysis and Planning), HAI (President Matt Zuccaro) and the Helicopter Industry Association (Mikhail Kazachkov, Chairman of the Board) respectively. The conference took place on the first day of the Exhibition and had a wide response among participants of the Russian helicopter market.

The Round Table on Issues of Aviation Condensed Fuel Use in MI-8 helicopter family (Organizers – Zhukovsky Central Institute of Aerohydrodynamics, State R&D Institute of Civil Aviation, InterAviaGaz JSC, ERA Science and Production Association) was devoted to alternative fuel. Realization of the offered technical solution will provide air transport of the remote regions of Russia with cheap fuel and will promote association of industrial and resource regions of the country.

The 3rd International Helicopter Industry Exhibition HELIRUSSIA 2010 was traditionally marked by the Helicopter Industry Association Annual Prize Award in nominations "Pilot of the Year", "Designer of the Year", "Engineer of the Year". The Award Ceremony took place on May 21 at 16:00 on the exhibition hall stage. The Presidium of the Helicopter Industry Association de-

cided on the following winners: "Engineer of Year"- Valery Evtikhov, Chief of technical bureau of hull and parts treatment complex of the Reduktor-PM JSC; "Pilot of Year" – Sergey Ignatov, a Mi-8 pilot, international flight group, UTair air transport company; "Designer of the Year"– Shamil Bayazitov, leading engineer-designer of the Kazan Helicopter Factory.

HELIRUSSIA 2010 saw the XXI Century Helicopters Contest Prize Award Ceremony (Organizers – OPK Oboronprom, Russian Helicopters), as well as The Beauty of the Rotary-Wing Aircraft Photo Contest Award Ceremony.

During the exhibition the ShowObserver HeliRussia 2010 newspaper was published.

During three exhibition days the exposition was attended by more than 7 thousand people including high-ranking officials of the Russian Federation and other countries, representatives of foreign military departments, as well as businessmen and fans of helicopter sport. Quite a number of visitors were Moscow citizens with their children who enjoyed exploring cockpits and cabins of various helicopters.

The next, already the fourth International Helicopter Industry Exhibition HELIRUSSIA 2011, will be arranged at the same venue, "Crocus Expo", from May 19 to May 21, 2011.

We are sure it will be even more fascinating and diverse.

Relatively inexpensive means of self-actualization

By various estimates now there are about 250 helicopters of the Robinson brand in Russia. Most of them were purchased in 2005-2008 during the leap of the world-wide demand for light single-piston engine helicopters. Since 2010 the new wave of acquisitions came to Russia mainly from the helicopter aftermarket of Europe.

It is worth mentioning that until certain period the major part of the helicopter buyers in Russia considered them as the means of self-actualization. All of them were mainly in Moscow region. The other part of the owners was interested in the helicopters as the means of quick and comfortable transportation. Compared to a car, the time savings here are from 3 to 8 times.

The models of the Robinson company became in Russia the best means to solve the issues both of the first, and the second group of the rotor-wing aircraft owners. Self-actualization on the R-44 helicopters is the same as on the other machines but many times cheaper.

The economical crisis was the reason to considerably affect such situation. Today the helicopters are more often purchased for corporative and commercial use.

Depending on the number of flight hours, package set and the condition a Robinson may cost 400-800 thousand US dollars in Russia, whereas a gas-turbine countertype – 1,5-2,5 mln US dollars. Therefore, these were the models of the Robinson company that the Russian private pilots and small helicopter companies used to make their first steps to the sky. Of course, more affluent buyers shopped Eurocopter AS350 or Bell 407 (U.S.A.), then

went twin-engine (8-places) Agusta 109, Eurocopter 135 and 145, etc.. More practical people, however, usually chose Robinson preferring it to all others, and there were many reasons for such choice.

The Robinson maintenance is much easier, for the helicopter has been planned as really not fastidious one for private use, with low-consumption piston engine. To some extent the success of R-44 was due to the market-determined prices for oil. The fuel cost share in direct helicopter operational costs is constantly growing, and the crucial part here was played by the fact of using the available and cheaper gasoline.

There is also another angle – a helicopter may be profitable. The Russian flight clubs where the private helicopter could be placed for parking and provided maintenance proposed the owners to lease the helicopters for pilot training. Of course, such proposals were made to the R-44 owners, for any training started from them. How much can one gain on the business? The Aerosoiuz company (authorized distributor and maintenance center of RHC – Robinson Helicopter Company estimates the efficiency of the helicopter business as 10-15%. So, this enables the owners of the machinery to considerably minimize their operational and maintenance costs.

This scheme which became standard in Russia was started to be actively employed from the mid 90s, but it failed to become the source of the long-term industry growth. There are case studies here. In 2010 the ambitious project of selling the helicopters in the Kama region initiated by the private airline Gelios failed. The company wound up both the selling, and pilot training activity, for during two years only two light R-22 helicopters were sold in Perm, and only four pilots were trained.

Among the reasons of the Gelios failure the observers note overstated sales expectations (10 in Perm at the all-Russian sales – 30 helicopters annually), insufficient market development of the Kama region and others.

The companies of the central region may count for better success of the similar business model where the demand foe such services is much higher. The Aerosoiuz company is the biggest authorized dealer and maintenance center of Robinson Helicopter Company in Russia. It offers much wider range of services. Among them there are: helicopter sales and maintenance; pilot training with the certificate issue; helicopter lease; helipods and heliports arrangement; operation of the private and corporative helicopters. Now the company is actively using the franchise relations with a number of companies. Making the agreements Aerosoiuz does not demand any share of the partner company; the main requirement is purchase of the whole range of machinery. Now the franchises of Aerosoiuz operate in Saint-Petersburg, Tomsk, Perm and Voronezh. Besides, some time ago Aerosoiuz staked at the participation in the program of sports and tourism development in Rostov region for the years 2008-2010, and that was the right step.

The similar efficiency has been witnessed from the part of the Uralhelicom company from Ekaterinburg, the city retaining the title of the biggest economical center of the Urals region. Weighty part of profit comes to the companies through training of the pilots and technical staff for the operated helicopters including Robinson. Thus, the number of the specialists operating R-44 is constantly growing.

On top of that, in the end of the previous year Uralhelicom was the first and single company in Russia to obtain access to overhaul the Robinson R-44 helicopter after 2200 flight hours or 12 years of operation. The aviation company Ufa Airlines was the first customer of Uralhelicom. On January 19, 2011 the agents of Ufa Airlines started the acceptance procedure of the first helicopter delivered for overhaul in December. This year already several other companies has made the applications for R-44 overhaul.

Today Ufa Airlines is the only operator of light civil aircrafts in Volga Federal District which managed to retain its position on the domestic market. Boris Shangariev, the Deputy General Director of Ufa Airlines, says that the enterprise "is keeping afloat" due to timely (in 2006) purchase of the American helicopters Robinson that are able to land on small and not particularly prepared helipods.

The Robinson R-44 helicopter flight commander of Ufa Airlines Oleg Nikitin says: "The aviation works on the light American helicopters were started in the Republic of Bashkortostan, and since then the operated territory has been much expanded: these are Chelyabinsk, Tiumen, Irkutsk regions, Krasnoyarsk Territory. We also perform monitoring of oil and gas pipelines, medical tasks, count wildlife population. In summer we patrolled the forests looking for the islands of fire. We are constantly seeking for new jobs, and there is a proposal to work in Chukotka."

The aviation company Barkol founded in 1996 is also well-known in Russia. Among the types of its activity there are: VIP charters arrangement, air patrols of the power transmission lines, oil and gas pipelines, aviation chemical works, forest monitoring and aerial photography operation. Of more than 50 planes and helicopters Barkol operates 10 Robinsons R-44.

The General Director of Barkol Airlines Viktor Barkhotov says: "The use of light helicopters does not necessary lead to reduction of aviation safety. Flight safety is the main priority for our company. The company infrastructure has all the necessary divisions for adequate performance: flying and engineering-technical staff, flight security inspection, aviation security service, etc.. We staked at the highly-skilled specialists".

The helicopters of the Robinson brand enjoyed simultaneously active usage in several regional air companies mainly to arrange the allowable charter transportations. They already own or lease dozens of R-44. The AC Bars Aero Airlines company with the main aircraft fleet consisting of the middle-range planes Yak-40 and CRJ-200 "Bombardier" is now mastering the business aviation segment, and supplemented its fleet with the helicopters R-44, Bell 407 and Mi-8. The key directions of the air transportations of the OJSC AC Bars Aero are Moscow, the nearest Volga regions and the West Siberia regions.

In 2010 it became known about the proposal of Magomed Zakarzhaev, the General Director of Kazan Aviation Enter-

prise (KAE), to join under their authority the helicopter fleets of the Tulpar Helicopters (member of the Tulpar group) and AC Bars Aero. KAE possesses 20 helicopters and ten are leased; the Tulpar fleets includes 10 helicopters (Robinson, too); there is also the helicopter fleet at AC Bars Aero. Therefore, theoretically the fleet of the merged company may be more than 40 helicopters. One of the biggest Russian air company UT Air also has the R-44s in its fleet.

All this makes it possible to say that there is almost formed segment of the commercial helicopter aviation using Robinson R-44. Apart from the private aircrafts, R-44s have been actively used by the state companies. For example, in 2010 the aviation fleet of the forest monitoring service in Altai Territory was introduced two new helicopters of R-44 class and two An-2 planes. All the aircrafts are distributed at their bases to fully cover the forest resources of vast forested area. Is necessary, each helicopter is ready to move to any part of the Altai Territory.

The Robinson R-44 helicopters have been successfully used by the law enforcement agencies. In 2005 the first Robinson R44 Raven I came to Baikonur in Kazakhastan. Using the machine, the Russian police forces providing order at the objects of the space infrastructure now have the option to expediently fight the criminal groups entering the territory of the complex to steal cables of non-ferrous metals. The new Robinson R44 Police model came to the Department of Internal Affairs at Baikonur. It is equipped with the special monitoring equipment. Besides, the R-44s began to come to the aviation squad of the MIA of Tatarstan – one of the 20 special purpose squads in Russia. Apart from Tatarstan, it is responsible for Chuvashia and Kirov region.

As of the application of the light Robinson helicopters, the Russian aviation market has just started to unfold their potential. The experience of the private and state aviation companies and clubs has already determined the most prospective trends of the R-44 use that mostly coincide with those developed in other countries. Thanks to the unique for the helicopters "price-performance" parameter and unrivalled popularity among the Russian private pilots and charter passengers, the Robinson R-44 helicopters may be sure of their favorable future.

German Spirin

Mi-34S1

Rotary-wing Phoenix

According to multiple specialist forecasts, today this helicopter may introduce considerable correctives in the distribution of the light rotary-wind aircrafts market shares. Until recently however, the production program was actually scaled down, and it seemed that this unique machine would never see the sky. But all is well that ends well, or, to be honest, it is now that everything just starts…

Pokryshkin's "godson"

The history of this helicopter started in already remote 1970s. It is then in the Air Force training commands and the flight clubs of Voluntary Association for Assistance to Army, Aviation and Navy (DOSAAF) the mass disposal of the Mi-1 helicopters began. Their substitution for the heavier Mi-2 turned out to be economically unsound, and the issue about the design of the new light helicopter became urgent. A.I. Pokryshkin, the famous combat pilot and Air Marshal, the head of DOSAAF made in 1979 the personal request to M.N. Tischenko, the Chief Designer of the Helicopter plant named after Mil in Moscow, about the start of these works. The request, of course, was accepted, and in 1980 the development of the light multipurpose helicopter Mi-34 ("product 300") began. The work was humming, and in November 1986 the first prototype of Mi-34 made its first flight. Already in a year the second prototype was completed and the same year Mi-34 was initially shown at the aviation-space show in Paris; rather high flight performance was demonstrated to the wide audience. The first stage of tests – A – was over. In December 1988 the Scientific-Research Institute of Air Force started the stage B of the joint tests. Their results proved the necessity of improvements that were introduced in 1989-1991. The demise of the Soviet Union and economical crisis, however, delayed finishing of the helicopter. Still in late 1992 the state tests were resumed. Moreover, the JC Light Mi Helicopters was founded to produce the Mi-34 brand, and the production was located at the Progress plant in Arseniev. The result of rather tedious works in tough economical conditions was that the first series Mi-34 took off in November 4 1993.

Survival aerobatic flights

Initially it was decided to use the available piston engine M-14B26B as the helicopter power plant. This engine was designed by I.M. Vedeneev, had the takeoff output of 242 kW (325 h.p.) and was suc-

cessfully used on the Ka-26 helicopters. The choice of the engine was also driven by the fact that it had been widely used on the sport planes of DOSAAF. During the Mi-34 development the latest technical achievements were employed, new materials in the hull design, rigid rotor and transmission, as well as more simple designs (e.g. skid landing gear). All this enabled to have the high flight performance helicopter with robust design and convenient in operation. The machine turned out to be very easy to control. The maximal all-up weight of the helicopter was only 1 450 kg. The course speed – 170-180 km/h. The flying range with 145 kg of commercial load was 360 km.

Besides, Mi-34 in its class became a single helicopter in the world that could keep 3 G force on the manoeuvres, perform complicated aerial stunts including the Nesterov's loop, precision and navigation flights and helicopter slalom.

During the Mi-34 finishing its options as multipurpose machine were also expanded. These include monitoring – following the environment, oil pipelines, power supply lines, forest ecology, banks of lakes, rivers and seashores. It can also be used as the commercial means of transportation of passengers and moderate cargoes. And, of course, it could be used for training of both civil, and military Air Force staff. In general, the helicopter demonstrated a lot of advantages but, unfortunately, it fit poorly into the "new times" of the Russian capitalism. This machine lacked the main attractive features for commercial use, such as: resource, load capacity, ceiling, flying range, comfort. It could be stated that Mi-34S did not correspond to the operators' requirements. Maybe these were the reasons or, rather, the aggregate of all objective issues that stopped the Mi-34 production in early 2000. And it seemed to many then that this helicopter would never gain the right height any more.

Risen from ashes

In 2010, however, at the HeliRussia-2010 International Exhibition the holding Helicopters of Russia presented the visitors and the specialists the mock-up helicopter Mi-34S1.

It turned out that it has already been for several years that the Moscow Mil helicopter plant (member of the holding) performed serious finishing and debugging of the multipurpose Mi-34S1 with the improved piston engine of increased capacity. Although it is based on the previous Mi-34, this would be absolutely another helicopter, keeping with the sprit of times. So, what would be new and attractive there? First, this is the engine which would be changed. The previous carburetor engine M-14B26B will be changed for the modern injector M9ФВ developed by the Mechanical plant in Voronezh. This engine is the modified helicopter version of the certified plane engine used on the sports machines Su-26 and Su-29. The capacity of the new piston engine of the Mi-34S1 model has been increased by 40 h.p. compared to M-14B26B. Besides, the engine would have the electric starter and low pressure fuel injection system; the fuel consumption would also be reduced which would enable to expand the flying range up to 500 km. The developers also suppose that the helicopter would be lighter by 100 kg.

The developers increased the resource of the helicopter and its main units to the world competitive values, installed the hydraulic system and the unit of the rotation support.

The next point is noise protection. Despite that the helicopter's noise parameters correspond to all international requirements, to have comfortable flights it is necessary to reduce noise in the cabin which is also supposed to be done on the new machine.

The same thing is with the renovation of the interior of the rotor-wing aircraft. It is planned to be created according to the best tradition of the contemporary automotive industry. To increase comfort during long flights, a new and more spacious

variant of the arrangement will be produced for three passengers and the pilot.

The next issue is avionics. There are several options planned: from the simplest – minimum of flight-navigation instruments – up to the "gussied up" one which will be produced under the guidance of the instrument-making plant from Ulianovsk.

Now the Mi-34S1 program is on the production preparation stage when the production facilities of the Helicopters of Russia holding in Arsenievo are updated (the helicopter will be produced there), as well as in Stupino and Perm where the rotorcraft structures and transmission, respectively, will be produced. It is necessary to say that, apart from the above novelties, the main purpose of Mi-34S1 update is reduction of the production costs and the ultimate price of the helicopter. This is the goal the main efforts of the developers are aimed at. The same is also proved by the fact that after the new five-axis mills were installed at the Progress facility named after N.I. Sazykin in Arsenievo, the cost of production of certain parts of the helicopter hull has been reduced sevenfold. And it is well known that the less expensive a product is, the more competitive it would be…

Reassuring forecasts

This is a very acute issue for the new Mi-34S1, too. The annual supply of the light helicopters (FAR-27 category) at the world market is estimated as about 1.000 units. The "lion's share" at the market is occupied by Robinson with their R44 machine. Therefore, hardly can it be expected that our helicopter would have a "dolce vita" fate. Both the specialists, and the developers think that Mi-34S1 would be able to obtain its market niche, provided active and efficient marketing promotion would take place. Such confidence is supported by many advantages – as technical, so related to the price – Mi-34S1 enjoys compared to its main competitor. The new Russian helicopter will be less expensive than R44. Its base package price at the Russian market and in the CIS countries may be 500 thousand dollars.

According to the developers, this model in the light helicopters category demonstrates one of the best manoeuvrability. Mi-34S1 can be used as in the air shows, so in the competitions. It is ideal for initial pilot training. Besides, Mi-34S1 can be used for passenger transportation and land monitoring. It can be used as the police aircraft and perform the environmental control functions, provided the equipment of special tools. All these advantages make us think that the aircraft would not be lost among the competitors and become one of the leading machines.

Mi-34S1 now is mainly oriented for the market of Russia and that of the CIS countries. In the Helicopters of Russia they think that the initial customer can be the Russian Aviation corporation which will purchase these helicopters for the civil aviation technical college in Omsk. Later, the task would be to promote the new product to Africa, Latin America, Asia, Western Europe and the North America.

Well, the first flight model of Mi-34S1 will be introduced at the air show MAKS in Moscow in 2011, where its flight qualities will be demonstrated in full swing.

The batch production of the helicopter may start already in 2012. It is almost nothing left to wait!

Dmitry Gnatenko

Mi-34C1

FLYING ON THE EDGE

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Inevitable advent

The consumers in the West do not consider the Russian helicopter machinery Ding an Sich. It would hardly be a mistake to say that the helicopter society of Europe and North America has some special idea about the rotor-wing machines produced in Russia. These helicopters are of unique design; they enjoy distinguished appearance and respectable reputation.

Maybe the Russian machines are not considered to be extremely up-to-date in the world – they are also "famous" as lacking the advanced electronic equipment on board, – but they have always been quite reliable and easy to operate and often demonstrate miracles of "battlefield survivability".

The first two points of this description need correction: even the best known and tested specimens of the Russian models range have been actively updated for the past 10-12 years; the same serious changes are taking place in avionics.

Although the Russian helicopters, such as Mi-8 Hip and Mi-24 Hind gained fame on battlefields and nowadays the troop-carrying Mi-17s are actively used in Afghanistan, the Russian manufacturers are taking considerable efforts to interest as many as possible commercial helicopter operators in the world in their products.

The next phrase may seem surprising to many: both the well-known and the new Russian helicopters (their batch production is planned to be started in 2011-2014) may turn out to be a real revelation for the American customers. And there is nothing extravagant in it, for there are objective prerequisites for entering the Russian aircrafts to the American market.

Of course, it is rather a big deal to enter the helicopter market of such country as the U.S.A. – the real helicopter Mecca. Besides, practice shows that the markets of such high technology products are quiet well protected in the developed countries. The national industrial institutions even don't have to openly demonstrate protectionism as of the profile companies, as well as lay down the complicated and sometimes directly inhibitory requirements of the aviation machinery certification, and the officials can easily justify closing of the high-technology markets by the interests of the national security.

No wonder that the markets of such products in Europe and America – on the territories of the countries with their own helicopter industry – have long been closed for the Russian companies. The decision of admission or exclusion of an aircraft manufacturing company to the national market is still made by the politicians.

The U.S.A. gained perfect experience of adaptation of the Eurocopter machines for the needs of the transport, medical operators (HEMS), tourist companies, those serving the off-shore oil production and even the military operators. The success of the helicopters AS350 (AStar), EC145 (military version of UH-72A Lakota), EC135, EC130, EC120 and AS332 speaks for itself. Of course, this path has never been a bed of roses, and, unlike Russia, France and Germany were the US allies during the cold war times which made the civil aircraft markets of these countries intrapenetrable. But there is a question there: what made the Eurocopter machines so successful in the U.S.A.? The answer is simple: the success of the European helicopters was due to the features that lacked the helicopters developed by the American companies Bell Helicopter and Sikorsky Aircraft. In the long run, entering of the Eurocopter aircrafts to the US market served the interests of the local consumers, enhanced the options of the helicopter operators and expanded the horizons of the helicopter business. In practice this never did harm to the American manufacturers, too, but rather on the contrary: the main helicopter manufacturers in the U.S.A. had to correct their strategy, which made them more efficient.

After several years of recession the Russian helicopter manufacturers keep headily returning the lost positions, for yet no more than 25 years ago the Russian helicopters made about a quarter of the world helicopter fleet.

One of the signs of recovery of the Russian helicopter manufacture was the EASA certification of the Ka-32A11BC machine. Two previous achievements of the Kamov Design Department were acquisition of the type certificates in Canada and Switzerland. The Ka-32 helicopter features a number of the unique options that make it the best in air mounting works, at extinguishing of fire both in cities, and local, at skid logging and other complicated air operations at strong beam wind.

The next example of successful development of the Russian helicopter industry is the newest modifications of Mi-8 model: Ми-171 and Ми-172. The load capacity of these aircrafts is 4-5 tons; the passenger compartment may take up to 26 people. The maximal speed of the helicopter if 135 knots, the flying range is more than 630 km. The civil helicopters of this series are equipped with the up-to-date avionics both from Russian (Transas company, Instrument making enterprise from Ulianovsk), and foreign manufacture. The legendary Mi-8 has not only retained the interest at the start of the XXI century, but found force to regenerate in full.

Among the Russian helicopter novelties there is the light multipurpose helicopter Mi-34C1: a thorough modification of the helicopter developed in early 90s. The new Mi-34 obtained the more powerful engine, reduced fuel consumption, expanded the flying range up to 500 km and became about 100 kg lighter. This is the most agile helicopter in its class with the 3 G-effect of the maneuvre. The appearance of such helicopter at the market can not only change the shares of the leading companies but also introduce the fashion for sport pilotage to the private owners who have to content themselves with R-44.

Another debutant of the helicopter market is the long expected Mi-38 model. Having the maximal speed of 175 knots and the service ceiling of 8100 m, the helicopter would be able to transport cargoes of up to 6000 kg. At the same time Mi-38 will be 20% more efficient than its Russian predecessors. The helicopter will have no restrictions on effective life and will possess the integral control system (HUMS – Health and Usage Monitoring System). One of the features of this helicopter is that it will be exported with the PW127T/S engines from Canada.

The Russian programs have been rather long developed within the country despite of the demands of the American and European markets, but it was this that made the Russian machinery able to perform the complicated tasks and uncommon missions with the prospects to occupy special segments of the market. In some areas the Russian helicopters have no peers, and nothing can serve as their substitute. It is the same as there are no helicopters like Bell 407 and Bell 429 in Russia so far.

It could be definitely stated that many helicopter operators are in need of the Russian machinery. The Russian helicopters are still less expensive, they still possess the unique features, but now they became more efficient, equipped with the up-to-date tools and provided with the post-sale service of international standard. There is little left: the Russian helicopters must be certified in the U.S.A..

Surely, the advent of the Russian rotor-wing aircrafts to the American market is a matter for the future. But such advent is inevitable, so there is no reason to postpone it.

The association long waited for

The need to unite for all having whatever relation to helicopters became urgent in Russia in early 2000s. It was understood then that the full-scale development of the helicopter market will be extremely difficult without a professional social structure aimed at the helicopter manufacturing industry.

Among the negative changes in the country there were the following: considerable setback in production of the machinery and rendering of the aviation services, destroy of the relationships among the companies of the industry. On the ruins of the old industry the new companies and new owners emerged that captured the helicopter fleet. Both the aviation authorities and the representatives of the new business suffered from poor knowledge of the Russian market, its trends and lack of somewhat valid statistics, etc. Of course, the informational support could be maintained using the resources of the scientific and research institutions that retained since the USSR (e.g. the State Scientific and Research Institution of Civil Aviation) and, despite sparse financing of these years, went on preparing the reports about the state of the Russian helicopter industry. But it was more important to develop an independent structure that would join together the helicopter developers, manufacturers, operators, the repair plants, as well as the engineers, pilots and technicians – and express their interests in the new economical conditions.

Integration is not an end in itself

The situation itself assisted joining of the construction department managers, manufacturers, owners of the helicopter companies from Moscow and other regions of Russia, as well as the representatives of the state authorities and other structures that could affect the condition and development of the Russian helicopter industry. Here the examples were the remarkable specimens of enduring activity both the national, and international organizations such as Helicopter Association International (HAI).

The peculiarity of the Russian situation is that joining of the helicopter society into the professional public organization gingered the state to found the helicopter holding which joined the assets of the industry enterprises. In 2006 the businessman and helicopter-man Mikhail Kazachkov founds the Russian Helicopter Industry Association, and a year thereafter the state corporation Federal Service for Defense Industry initiated the processes to found the management company named Helicopters of Russia.

On December 14, 2006 the first foundation meeting of the non-commercial organization joining almost all who had even remote relation to the helicopters was held in the Polytechnic Museum of Moscow. The main objectives of the newly founded Helicopter Industry Association (HIA) were coordination of the efforts of the state, professional public and entrepreneurship in development of the helicopter services market. Surely, the issues of the air navigation and improvement of the Air Code were considered, as well as development of notification for the companies – manufacturers of the helicopter machinery.

However, the integration that had been proposed as the main idea of the Association performance was not the end in itself. The public organization turned out to be a sort of a test for professional suitability of all responsible for answering the question: what would be the way of the Russian helicopter industry? The Association was on the way of creating its own regulatory bodies including the Board, the competent panel, the working committees and their own exhibition of the helicopter industry.

At present HIA joins 20 airlines, 8 manufacturers of the helicopters and the components, 3 organizations for repair and maintaining of the air worthiness, 6 service organizations, and 120 physical persons. The companies produce the following helicopters and the components for them: Mi-26, Mi-171, Mi-172, Mi-34, Ka-32, and Ka-226. The types of the helicopters operated by the HIA airlines: Mi-26, Mi-6, Mi-171, Mi-172, Mi-8MTB-1, Ka-32, Mi-8t; Mi-2, AS365, AS350, various models of the Robinson, MDH helicopters. In 2008 the HIA Board elected the President of the Association the legendary Sergei Mikheev, the Chief Designer of the CD Kamov.

A little more than a year was needed for historic step

Similar to Helicopter Association International (HAI), one of the main tasks of HIA since the moment of its foundation in December 2006 became preparation for the HeliRussia helicopter exhibition in 2008. The members of the Helicopter Industry Association were sure that performance of such exhibition in Moscow would be a matter of survival and successful development of the new public union.

In January 2008 HIA held the helicopter operators meeting in Moscow. The meeting was attended by the representatives of the Federal Transport Supervision Service of the RF Ministry of Transport, State Scientific and Research Institution of Civil Aviation, State Scientific and Research Institution of Air Navigation, Civil Aviation State Policy Department, OJSC Kamov, OJSC Moscow Helicopter Plant named after M.L. Mil, as well as the managers of the leading helicopter companies. The initiators are of the opinion that such meetings must make the helicopter industry regain integrity and define the ways of solving the problems facing the Russian helicopter society. Also, the main "hot buttons" of the industry were specified: flight safety, economy. It also turned out that multiple unions and associations previously founded in the civil aviation were notoriously weak to actively apply to power authorities or for lobbying the interest of the industry at the law-makers. Equipped with these practices, HIA came to the necessary historical step which had to be made to occupy one of the most promising and highly technological niches in the world economy – to hold the first international exhibition HeliRussia 2008. It was held from May 15 to 17 in Moscow in the Krokus Expo pavilion.

On May 15-17 the first international exhibition of the helicopter industry HeliRussia 2008 in Russia was held in Moscow. The participants were 129 companies (22 – foreign from 10 countries of the world. The main goal of the exhibition became assistance to development of the domestic helicopter market. The initiators set the task to promote the Russian products to foreign markets. Apart from the civil models, the military helicopters were also exhibited at HeliRussia 2008; due to the fact the visitors could get acquainted with the latest practices of the industrial-military system.

Among the issues discussed during HeliRussia 2008 was massive deficit of pilots and technicians in Russia. Yes, this was the long forgotten problem. The enterprises with their vacant jobs, higher education institutions and special colleges with their programs of training and re-training specialists were invited to HeliRussia 2008. Also, HeliRussia 2008 arranged "working tables" for adaptation of the air laws and safety of the helicopter flights. Besides, another issue discussed during the official part of the HeliRussia 2008 exhibition was the arrangement of flights in the capital region.

The foreign manufacturers demonstrated their success in the segments where Russia was not represented, and this was the direct relation between the customer and manufacturer.

Thanks to the pre-held presentation of HeliRussia 2008 at the HeliExpo 2008 exhibition, the foreign helicopter society took great interest to the Moscow event. It was representative that the HAI delegation worked at HeliRussia 2008, and the special stand was provided for the Association. Matt Zuccaro, the president of HAI, supported HeliRussia and came to Moscow at the exhibition opening ceremony. The latter was also attended by Sergei Igorevich Sikorsky – the follower of the traditions with the last name of the Russian helicopter genius.

It was just two months after HeliRussia 2008 when the next, the fifth All-Russia Helicopter Sport Contest for the Mil CD Cup, was held. This contest was established by the Russian Helicopter Systems company of Mikhail Kazachkov. Here gathered the whole Russian helicopter society. Due to the event the Helicopter Industry Association arranged a number of business cases. Before the championship was opened, the contract was made between the OJSC Helicopters of Russia and the Federal Agency for Air Transport for purchase by the Russian Aviation corporation of 20 training helicopters Mi-34, as well as signing of the Protocol of Intent for strategic cooperation between one of the biggest aviation companies in the world – UtAir and the OJSC Russian Helicoper Systems to arrange the helicopter air taxi transportation in the Central Federal District. Therefore, HIA began active use the options of the traditional helicopter sports forum in Russia according to the tasks of the helicopter society.

Year by year growth

2009 actually became the breakthrough for HIA as of the relationships with the government institutions. The second international exhibition HeliRussia 2009 was arranged in accordance with the KA Government order. Initiated by the Helicopter Industry Association, the exhibition was arranged by the Ministry of Industry and Trade of the Russian Federation. The institutor of the exhibition was the OJSC Russian Helicopter Systems. The steering committee was headed by the Deputy Minister of Industry and Trade Mr. D.V. Manturov. The general sponsor of HeliRussia 2009 was the Eurocopter Vostok company.

That time the exhibition center Krokus Expo received the visit of 144 companies from 16 countries of the world: Russia, the Ukraine, Byelorussia, Latvia, the U.S.A., the UK, France, Sweden, Italy, Germany, Columbia, Japan, Poland, New Zealand, and United Arab Emirates. More than 30 foreign companies of the helicopter industry participated in HeliRussia 2009; among them there were Eurocopter, Bell Helicopter, MD Helicopters, Turbomeca, Becker Avionics, Pall Corporation, Breeze-Eastern, Honeywell Aerospace, Kamatics, Simplex Manufacturing, Semia and others.

HeliRussia 2009 represented the developers and manufacturers of the helicopters, helicopter simulators, accessories, cabins and special equipment for the helicopter machinery. Also, the products of the companies performing ground support, radar assistance, helipads arrangement were shown, as well as the technical maintenance centers and fuel-supply units. There were transport, leasing, insurance companies and helicopter machinery dealers, too. 13 helicopters were presented at the exhibition: Ka-52 «Alligator», Ka-226, Ansat, Mi-171, Mi-2, EC145, AS350, BK 117C, Colibri EC120B, R-44.

There was an expanded business program at the exhibition. One of its key events became the international conference "Helicopter Market: trends and reality". The helicopter holding OJSC Helicopters of Russia held the conference "Reliability and safety of the Russian helicopters". There also was the round table discussion entitled "Liquefied propane and butane usage – ASKT on the Mi-family helicopters" and other events.

More than 7 thousand people visited the exhibition during three days of its work. Quite a part of the visitors were families with children.

Rather curious may be considered the fact that the MAKS-2009 air show once again proved the need of more profound cooperation of the helicopter manufacturers with the manufacturers of the accessories to be presented at the market of the "helicopter + accessories" sets intended for special types of works. In the long run it is this that determines the value of a helicopter and demand for it. Actually, this is nothing else but commissioning of social services for HIA, and the major part of its practical events are mainly oriented for alignment of the options of the Russian helicopter companies and their foreign partners.

New stage in the helicopter society development

2010 – the year of success of the 3rd exhibition HeliRussia in Moscow – ended with the traditional (November) helicopter forum of the HIA "Modernization and innovations in the helicopter industry". The members were more than 150 representatives of the helicopter companies and the government institutions controlling the industry.

Among the novelties there were the newest solutions of the helicopter construction that, as planned by the Helicopters of Russia holding, would be able to increase the competitive advantage of the Russian helicopters at the world market.

The main block of the speeches at the forum was devoted to the discussions of the operating conditions of the helicopter business, in particular, the tax policy of the government. The set of speakers enabled to cover all problem issues of the tax policy both for the activity of the Russian helicopter manufacturers, so the foreign producers on the territory of Russia.

A real parliamentary discussion about prolongation of air worthiness of the Russian helicopters rose among Shamil Suleimanov, the Chief Designer of the OJSC Kamov, Anatoly Nikishov, the Deputy Chief Designer of the OJSC Moscow Helicopter Plant and the representatives of the helicopter operators. The top line report "Flight security and support of air worthiness of the Russian Civil Aviation helicopters" was made by Nikolai Osipov, the Manager of the analytical group of the 132 Department of the Civil Aviation Science and Research Institute. The longstanding research shows that by durability values the Russian machinery can serve up to the end of the XXI century and, starting from Mi-8AMT model the Russian machines are the safest in the world by the disaster statistics per 100 thousand of flying hours.

At present there are 1872 Russian helicopters and 256 helicopters of foreign production are operated in the civil aviation of Russia (at the end of 2009 there were 1284 helicopters in total, 230 units of them being of foreign production). Therefore, the operators of the rotor-wing machines now have 2137 helicopters. As of the foreign models, the major part is R-44s (Robinson) – 177 machines. During the three years the operators purchased Mi-171 – 28 machines, Mi-8 MTB/AMT – 26 and Ka-32 – 4. The experts think that these figures are minimal for the tasks the helicopter industry is bound to solve. In this respect, apart from intensification of helicopter construction, the HIA has to solve the issues of forming efficient relationships among all interested structures to support air worthiness of the available aircraft fleet. All this was shown in the HIA plans for 2011.

The main thin now is that HIA participates in discussions of the main aircraft performance characteristics of the future civil helicopters. The special works are provided for this to be agreed with the aircraft manufacturers.

The key aspect may be called the HIA performance to orient the Russian helicopter operators for mastering the light and middle-weight helicopters and to occupy their segment at the international market of the helicopter works.

All this was included in the general plan for development and acceptance of the new governmental support program of the helicopter industry.

Ка-32

UTair Colors

Extending possibilities

Thanks to the performance of its helicopter division the UTair Airlines may be referred to as the one under the cloudless sky: such diverse is the geography of the helicopter branches of the Russian aircraft leader. This, however is fully inherent to the Russian branch of the company for it is located on the Tiumen Territory, the vast Russian area where each summer in the north of it the long period of the "white nights" starts.

UTair is one of the leading helicopter services providers in the world alongside with such companies as Bristow Group Inc. (USA), Canadian Helicopters (Canada), Evergreen International Aviation, PHI (Petroleum Helicopters), and CHC Helicopters.

The mission of the helicopter business direction is to provide clients with high-quality aviation services of any level of complexity, any time of the year, anywhere in the world, using modern and reliable helicopters.

UTair Aviation is the largest helicopter operator in Russia. Its market share in Russia is approximately 14%. Its market share in the Western Siberia region – one third of the Russian market – is over 40%.

The list of the international subsidiaries of UTair Aviation allows to present geography their global presence.

Since 1991, UTair has been successfully providing helicopter services to the United Nations peacekeeping missions. The Airline has been officially accredited by the UN. In 2000 the company established a representative office in New York. The helicopter types operated under the UN contracts are Mil-8T, Mil-8MTV, Mil-26T.

UTair Europe (UTair EU) is European subsidiary of UTair Aviation established in 2006. The company is engaged in provision of different helicopter services using

Mil-171 (AMT) helicopters and is currently based at Piestany International Airport, Slovakia. UTair EU operates in Germany, Slovakia, Poland and other European countries.

UTair EU is specializing in: monitoring operations, aerial patrol, precision construction, firefighting.

In 2004 for the purpose of further implementation of quality air services in Africa UTair Aviation established UTair South Africa (Pty) Ltd as its subsidiary in RSA. The company successfully acquired an air service license, operating certificate and aircraft maintenance organization approval.

UTair SA is currently based at Lanseria International Airport and specializing in transporting cargo, precision contraction, rescue operations, firefighting, supporting oil and gas exploration and production activities, disaster relief, maintenance and servicing of Mil-8 series and other Russian-built helicopter throughout South Africa and African continent.

In 2005 UTair Aviation established a subsidiary in India for the purpose of providing helicopter services to oil and gas companies.

In 2006 UTair Aviation started operating in Canada transporting heavy and oversize equipment to remote oil and gas fields.

UTair is specializing in cargo transportation, precision construction, oil and gas pipeline monitoring, forest patrol, search and rescue operations, medical evacuation, passenger and VIP-transportation.

40 years ago the oil and gas fields of the Tiumen Territory became the strategic base for development of Russian civil aviation. The helicopter became the main means of transportation both for the employees of the oil- and gas fields of the Siberia, and for the local inhabitants, too.

Tiumen became the "talent foundry" for several generations of Russian pilots, technicians and aviation managers.

From its predecessors the UTair company inherited the biggest helicopter fleet in Russia; later is was considerably expanded and updated including with the foreign helicopters.

Right from the start the helicopter division of UTair enjoyed commercial success gaining profit for the whole company, and later growth of the oil industry enabled UTair to expand their helicopter business.

The Airline's primary customers for helicopter services are Surgutneftegaz, Gazprom, Rosneft, Sibneft, Slavneft. UTair Aviation also provides helicopter services to the regional authorities of Khanty-Mansiyskiy and Yamalo-Nenetskiy autonomous districts and local governments in the South of the Tyumen Region. These services include medical evacuation services, transporting children of northern indigenous populations to schools and delivering food supplies to remote areas.

The tough specific character of northern Siberia helicopter business taught the helicopter personnel – pilots, technicians, engineers – to be responsible, develop creativity in their work and be able to perform missions of any complexity.

In order to operate worldwide UTair Aviation has been cooperating with the helicopter manufacturers in an effort to modernize the equipment and make it consistent with the international standards.

Helicopter fleet is constantly renewed with light helicopters of foreign origin like Eurocopter AS355 and BO-105 which adds new services that the company provides to the customers. These new light and mobile helicopters perform the following types of operations – VIP transportation, aerial mapping, emergency casualty evacuation.

Since entering the international market UTair Aviation has become known as a reputable operator of the Russian-made helicopters. Extensive successful experience in creating facilities with flight and maintenance personnel thousands of kilometers away from the head facility as well as high quality performance in extremely difficult climatic and geographic areas enable the Company to expand its presence on the international market.

The performance of the helicopter division of UTair company is not only business but also the special style of positioning their aviation activity inseparably related to the social interests and humanitarian, educational and environmental tasks.

The UTair helicopters colors became the symbol of safe and reliable transportation and responsible commercial activities.

20 ECUREUILS FOR UTAIR'S FLEET

Russia's UTair will acquire 20 AS350/AS355 light helicopters in a new agreement that extends this leading rotary-wing aircraft operator's long-term strategic relationship with Eurocopter.

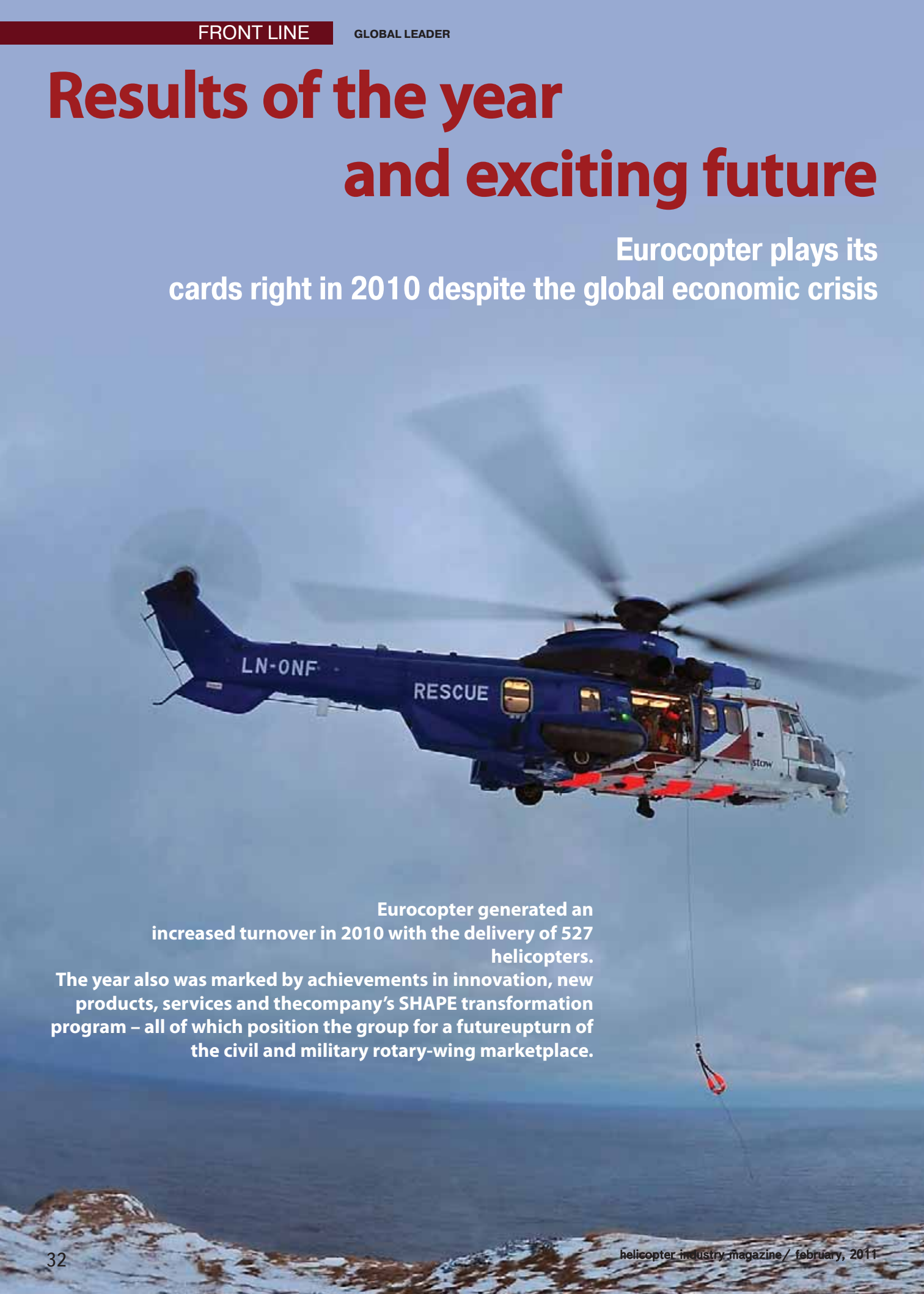
The acquisition contract was signed by Andrey Martirosov, the Director of UTair Aviation, and Eurocopter Vostok CEO Laurence Rigolini, in the presence of Christian Gras, Executive Vice president – Customers - for the Eurocopter Group. It covers the deliveries of 20 single-engine AS350 B3 and twin-engine AS355 NP versions of Eurocopter's Ecureuil lightweight helicopter family beginning in the summer of 2011 and continuing through the spring of 2013.

"The growth of UTair's fleet with these 20 Ecureuils will strengthen our leadership position on the worldwide helicopter market, as these lightweight helicopters perfectly meet the highest industry standards and are very welcomed by our customers in Russia and worldwide," Andrey Martirosov said.

This is the largest Russian order in the lightweight helicopter category, according to Eurocopter Executive Vice President Gras. "The implementation of this program illustrates a new level of partnership between our two organizations, and inaugurates a new era for the commercial use of Eurocopter single engine helicopters in Russia," added Christian Gras.

Results of the year and exciting future

Eurocopter plays its cards right in 2010 despite the global economic crisis



Eurocopter generated an increased turnover in 2010 with the delivery of 527 helicopters.
The year also was marked by achievements in innovation, new products, services and thecompany's SHAPE transformation program – all of which position the group for a futureupturn of the civil and military rotary-wing marketplace.

GLOBAL LEADER

The 2010 deliveries provided a turnover of 4.8 billion euros, representing a growth of six percent compared to 2009. They included 28 NH90 multi-role military helicopters and 15 Tiger attack helicopters – twice as many as in 2009 for both aircraft – as well as the first three of 50 EC725s for the Brazilian Armed Forces and the 100th UH-72A delivered to the U.S. Army on time and on budget.

New orders for 346 Eurocopter rotary-wing aircraft last year were equivalent to the company's business volume of previous years prior to the peak periods of 2007/2009, and represented a value of 4.3 billion euros. These bookings included key Super Puma family contracts for Malaysia and Mexico, along with strategic Ecureuil orders in Russia and the United States.

"While 2010 was another challenging year for our industry, we made solid advancements that enable us to be well-placed for an expected market recovery in 2012 and beyond," Eurocopter President & CEO Lutz Bertling said. "Our strengths for the future will come from Eurocopter's continually increasing investment in the product range and industrial capabilities, the expansion of our global footprint, along with major enhancements in our services offering."

Consolidated turnover

Deliveries of new production helicopters accounted for 53 percent of Eurocopter's 2010 consolidated turnover, while support and services provided 36 percent of the total. The remaining 11 percent was generated by development and other activities.

Order bookings

Services and export sales were key drivers in Eurocopter's 2010 bookings. Orders for new helicopters represented 49 percent of the total, followed by the 42 percent share for services, and nine percent for development and other activities. The growing share of services bookings supports Eurocopter's Vision 2020, with the goal of further strengthening its services business. The new helicopter order shares were 51 percent civil and 49 percent military. Of the total 2010 bookings, 73 percent were for export sales, with the remaining 27 percent for Eurocopter's domestic European markets.

Bookings by product range

Eurocopter's 346 helicopter orders in 2010 were composed of the following:

- 143 AS350/AS355 Ecureuil/Fennec/EC130 family rotary-wing aircraft
- 67 EC135s
- 52 EC145s (including 40 UH-72A Lakotas)
- 45 Super Puma/Cougar EC225/EC725 family helicopters
- 27 Dauphin/Panther/EC155 family helicopters
- 12 EC120 Colibri aircraft

2010 Highlights

Highlights in 2010 included the beginning of flight testing with Eurocopter's X3 high-speed helicopter demonstrator, which is part of the company's focus on innovation as a central element in its business strategy. The X3 achieved its first important milestone of reaching the speed of 180 knots only two months after first flight. The second EC175 prototype's maiden flight also occurred last year, marking an important step in this joint program with China. Flight testing also was initiated for the CH-53GA helicopters being completely modernized by Eurocopter for the German Army.

The framework of Eurocopter's training and support/services capabilities was strengthened in 2010 with such developments as the creation of a new subsidiary in India; the go-ahead for expanded maintenance services in China; the opening of a new, enlarged facility in Singapore; the expansion of Eurocopter's Aviation Training Academy premises in Germany; and the development of the new Eurocopter global logistics platform in France.

The SHAPE transformation program, which Eurocopter implemented early 2010 to counter the global economic downturn and respond to the industry's competitive challenges, already has delivered results in terms of new product developments, enhanced customer service, innovation, streamlined organization and cost savings - with over €100 million achieved from the €200 million targeted by the end of 2011. Additional benefits from the SHAPE program are expected in 2011.

2011 Flight plan

Eurocopter's strategy for the next 12 months includes one program development launch for the expansion and modernization of its helicopter family, the first flight of a major product upgrade and one new helicopter certification.

The company's industrial capabilities will be broadened and strengthened with its new rotarywing center of excellence for EC725 helicopters in Brazil, the establishment of a joint venture to assemble EC145s in Kazakhstan, along with the consolidation and improvement of Eurocopter's facilities in Europe.

Eurocopter's focus on its services offer will range from the investment in full-flight simulators and the addition of new certified training/maintenance centers in the UK, Southeast Asia and Brazil to a planned further expansion of global capabilities through partnership and acquisition. An emphasis during 2011 will be on improving fleet safety with smaller operators, as well as in markets where Eurocopter is beginning to obtain a foothold.

Eurocopter to introduce a new era in helicopter flight at the Heli-Expo 2011 exhibition

Eurocopter will unveil a new helicopter and launch a comprehensive enhancement of its existing product line at next month's Heli-Expo 2011 exposition in Orlando, Florida, underscoring the company's commitment to innovation for the improved operating performance, efficiency and maintainability of its rotary-wing aircraft.

The new helicopter is to be revealed at Eurocopter's exhibit stand 4637 at 11 a.m. on the March 6 opening day of Heli-Expo 2011, during a ceremony led by Eurocopter President & CEO Lutz Bertling.

The product line evolution for Eurocopter involves several members of its helicopter family. All improvements introduced on these rotary-wing aircraft – which carry the "e" designation for "evolution" – are designed to significantly augment their cost-effectiveness, mission capability and ease of operation.

"Our continued significant investments in innovation have enabled Eurocopter to launch the new member of our helicopter family and implement this significant evolution of Eurocopter's inventory, which will provide more capable products for customers and further improve our competiveness," said Bertling.

Featured on Eurocopter's exhibit stand at Heli-Expo 2011 is one of these enhanced helicopters – the AS350 B3e. This updated version of the best-selling Ecureuil family aircraft incorporates a Turbomeca Arriel 2D turboshaft engine, along with a new-generation digital FADEC (Full Authority Digital Engine Control) and an engine data recorder for condition monitoring.

The AS350 B3e features an improved interior design, as well as tail rotor modifications for additional ease of piloting. It also has the option of operating at the maximum takeoff engine power rating for 30 minutes, and can be equipped with optional engine filters for additional protection during flight in sand and snow conditions without weight penalty. Certification of the AS350 B3e is targeted for this summer, with deliveries beginning before year-end.

Also spotlighted at Heli-Expo will be a full-scale mockup of Eurocopter's latest helicopter product – the EC175, displayed in its configuration for oil and gas transportation missions. Flight testing with the two EC175 prototypes has surpassed the 100-flight hour milestone, demonstrating the rotary-wing aircraft's excellent handling qualities and low internal vibration levels. Type certification is scheduled for the end of 2011, and the initial production E175 now is being assembled at Eurocopter's facility in Marignane, France.

The multi-role EC175 is being developed in an exemplary joint program with the Aviation Industry Corporation of China (AVIC), and is a new-generation, seven-metric-ton weight category helicopter that fits into Eurocopter's product range between the AS365 Dauphin and the AS332/EC225 Super Puma families. It benefits from a mix of proven and advanced technologies, providing excellent speed, performance and reliability.

Another element of Eurocopter's Heli-Expo 2011 presence will highlight achievements with the company's innovative X3 hybrid helicopter demonstrator, which has attained a true airspeed of 180 kts. (333 km./hr.) in level flight during its first phase of testing. The second phase will begin in the coming months, with the goal of achieving sustained cruise speeds in excess of 220 kts.

The X3 is a key element in Eurocopter's innovation roadmap, providing a system tailored to applications where operational costs, flight duration and mission success depend directly on the maximum cruising speed. Equipped with two turboshaft engines that power a five-blade main rotor system and two propellers on short-span fixed wings, the Eurocopter hybrid concept is envisaged for operations ranging from long-distance search and rescue missions, coast guard duties, and border patrol flights to passenger transport and inter-city shuttle services. It also may be well-suited for military missions in special forces operations, troop transport, combat SAR and medical evacuation.

Additional information on Eurocopter's product line enhancement and innovation – as well as updates on the company's services, training and logistics offer – will be provided during Heli-Expo 2011. Follow Eurocopter's daily developments at this major helicopter industry gathering on the special website:

www.eurocopter.com/hai

Ka-32

FEATURES OF FOREIGN AVIATION MARKET ENTRY

On November 25, 2009 the Interstate Aviation Committee (IAC) and European Aviation Safety Authority held the solemn presentation ceremony to OJSC Kamov of the European certificate EASA.IM.R.133 for the Russian helicopter Ka-32A11BC.

Frankly about the sore issues

Ka-32A11BC became the first Russian helicopter winning the certificate. Actually, Ka-32 continued the way of certain foreign certifications of the legendary helicopter Ka-26.

Here the natural question emerges: what are the main problems of the Russian helicopters certification according to the American (FAR) and European (JAR) regulations?

Shamil Suleimanov, the Ka-32 Design Manager of the OJSC Kamov, says that the European certification procedure provides strict structure: no next step is possible until you pass the preceding one with all relevant reports. The Ka-32 Design Manager is well aware of that as a person who headed the team of the professionals that endured the trials of the EASA certification.

Mr. Suleimanov explained that all the problems converged to the main one: difference of attitudes towards operation arrangement of the civil helicopters in Russia and abroad laid out on the steps of design and certification. Such difference is rather fundamental.

Formally, both the rules of practice, and the requirements for the helicopter design are the same as in Russia, so abroad. Back in 1992 the Airworthiness Standards NLG32.29 were put into practice and kept in line with FAR 29 (amendment 29–24) applicable to Ka-32 helicopter. In 1994 the Federal Aviation Rules (FAR 29) were adopted. However, in practice the unified standard is a rather big deal, and this applies to the peculiarities of the foreign certification system.

The western system places stake on the common level – the design engineer who knows what is to be required by the NLG from a technical unit already on its design stage.

There are also other objective aspects keeping the Russian system apart from the other countries and producing obstacles during certification of the Russian helicopters according to the foreign regulations.

For instance, there are no certain technologies in Russia, and this hinders fulfillment of the requirements of the foreign certification centers. For example, 35 years ago the U.S.A. and Europe adopted the rules for accident-proof fuel tanks. Now Russia also has the approved relevant regulations, but there are no such technologies in the country yet. The issue could be solved only with the appropriate state support. It was well known that before the above regulations were adopted in the U.S.A., the full-scale development programs for such systems had been performed on account of the US Ministry of Defense. Only after these technologies had been tested in the Air Force, they were introduced to the civil aviation in the early 90-s. Without such technologies not a single Russian helicopter would be certified abroad.

Our helicopter designers also encountered with the rejection abroad of the materials commonly used in the aircraft engineering in Russia (e.g., steel 30 HGSA, aluminium alloys, nonmetals). Such attitude was of definitely discriminating nature towards the Russian technologies and legitimacy of the domestic implementation system.

When such decisions are made, politics is also very important aspect. Frederic Copinier, the EASA Certification Deputy Director, diplomatically noted during the Ka-32 certificate award ceremony that the difficulties of the helicopter certification were mainly of administrative character and related to the legitimate peculiarities of the EC.

With all shades and difficulties our helicopter industry, although slowly, but still keeps moving the right path. The development in late 80-s of the Unified Airworthiness Standards, the unified principles during the helicopters design and operation has become the key factor proving the operation of the Russian helicopters both within the country, and abroad. Keeping maximally in line with the foreign certification system our helicopter engineers procure work for Russian operators worldwide.

First of all, this applies to the products of the OJSC Kamov. The thing is not that its was the helicopter of this company that was the first to practically prove advantages of such integration. The main thing is that Kamov sets the most ambitious challenges – promotion of all their rotor-driven aircrafts to the markets of the Europe and North America.

Sergey Viktorovich Mikheev, the General Designer of the experimental design bureau Kamov kept saying that «our achievements of today is the result of the work we started more than 30 years ago».

Generally speaking, the whole future family of the Russian state-of-the-art helicopters should go this way. Aiming to the markets of the developing countries is extremely important, but it is well known that the main customers of the civil helicopter machinery are in the developed economies. Observation of the general rules and requirements would make the Russian helicopter equipment available for the interested foreign customers.

How it all began

Far away in 1981, when the experiment of using the helicopters Ka-32, Mi-8 and Mi-6 for timber removal was carried out, the results proved to be a nice surprise for many experts: a heavy-medium of "Ka" brand went almost head-to-head with the heavy-weight Mi-6. This was not the case of surprise of the Ka-32 engineers: they knew what they had created. The 32nd was designed with the stake placed on the maximal usage of the coaxial idea – small hull and high manoeuvrability. And they produced a real "flying crane". Moderate dimensions, absence of tail rotor and amazing manoeuvrability in the vicinity of buildings and various obstacles made it indispensable not only in moving timber, but in building and construction works.

Further on, during many tests the helicopter implacably kept proving its right for existence, and finally its official certification became the issue. To increase the demand for the "product", the designers decided to upgrade it making modern flight security requirements and operation costs the corner-stone idea. The result of the designer and development works was the improved Ka-32A machine which appeared in 1990.

The new rotary-wing was equipped with the state-of-the-art navigation and avionics units and a good locator that enhanced reliability of performance at day and night time, in adverse weather and even in possible icing. But one of the undoubtful bargaining chips turned out to be the option of pilotage only by one rotorhead, for all operators have been famous for their cost calculation abilities…

No wonder that pretty soon the success of Ka-32A awoke interest of the foreign customers. However, in order the western companies could freely purchase the Russian machinery, the mandatory certification of Federal Aviation Regulations (FAR) or Joint Aviation Requirement (JAR) of Europe was necessary. This became possible after the Aviation Registry of the Interstate Aviation Committee (IAC) commenced the airworthiness codes of the U.S.A and Russia recognition procedure.

For almost three years in tough economic conditions the members of the development design office exerted mountain of efforts to implement the issue. Finally, in May 1998 the company had big amount of certification and testing works of the helicopter and engine (TB3-117BMA) successfully completed. The labors were not vain, and that year

Transport Canada obtained the type certificate for the modification of the Ka-32A11BC machine to be operated by the VIHLogging company, and the aviation authorities of Switzerland certified Ka-32A12 to be operated by Heliswiss.

In the den of competitors

It was as far as in 1992 when the Heliswiss owner Joe Reedy proposed Kamov company to make use of the Russian helicopters in moving timber and at other works. This was mainly due to the fact that, pressured by the green, the laws were passed in a few countries forbidding usage of tracked vehicles in timber logging, and forest operators willy-nilly had to remove timber by air. To do this, for example in Europe the helicopters of the European consortium Eurocopter were used. It turned out, however, that even the latest model of Eurocopter – AS 332 Super Puma – yields Kamov's machine the majority of points, to say nothing of the price. Astute Reedy had backed the right horse, and Kamov's team, in the toughest competition, managed to be both feasible with buyers, and demonstrated unrivalled skills of experienced negotiators, too.

When the Swiss first got Ka-32 its operation costs per hour were about $2000. Thanks to maintenance benchmarking this amount lowered down to $800! The developers kept moving in this direction and managed to extend the overhaul period of gear assembly from 500 to 2000 hours, and even more extention to 3000 hours was scheduled.

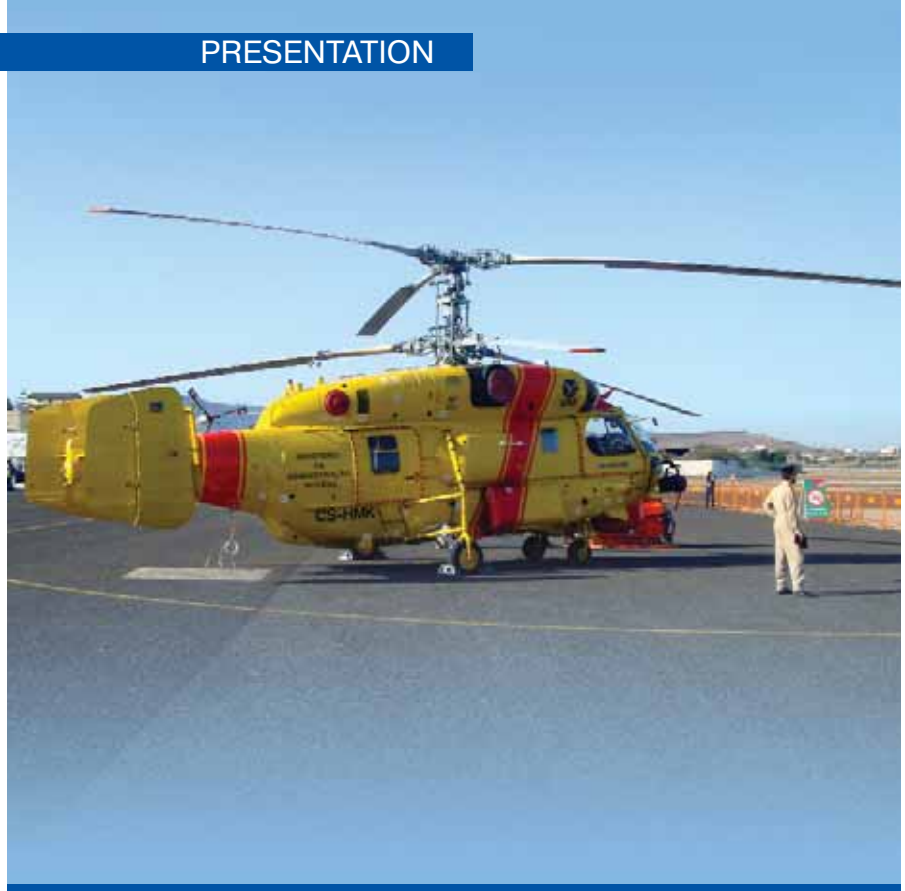
Of course, such approach went not without keen attention. This is understood in Canada, especially in the VIH Logging company, with their helicopters mainly engaged in timber logging – one of the most complicated type of operation for a rotary-winged aircraft. VIH Logging Ltd., the branch of VIH Aviation Group, is the second largest operator in the country having 49-year experience of helicopter operation. Indicative is the fact that these are our Ka-32A11BC helicopters that have been operated by the company for 11 years already. It could not have been otherwise, for during this period the Russian machines haven't had a single inflight accident or emergency landing.

Moreover, since 2002 the experts of Kamov company provide helicopter service maintenance for the sake of continuous airworthiness and compliance with the flight security regulations. Our helicopter is highly appreciated by the company itself with the emphasis that Ka-32A11BC has proved its ability for highest security levels and extended operation to perform unconventional tasks.

It has also been noted that the overall design of the helicopter was more secure than that of any helicopter type with the tail rotor for rudder control, for absence of tail rotor leads to increased stability and manoeuvrability. So, it is no wonder that here it successfully competes with such brands as Sikorsky and Bell.

The sky is the limit

The Kamov team, however, is not about to bask in the sun. To maintain their leading positions they keep improving



Ka-32A11BC specifications

Takeoff weight, max., kg	**11,000**
Full load (standard specs.), kg	**4,200**
External load, kg	**5000**
Full with external load, kg	**12700**
Engine	**TB3-117 BMA "Motor Sich"**
Output	
- takeoff, h.p. (kW)	**2x2200 (2x1619)**
- cruising power, h.p. (kW)	**2x1700 (2x1251)**
- 1 eng. 2,5 min., h.p. (kW)	**2400 (1766)**
- 1 eng. 30 min., h.p. (kW)	**2200 (1619)**
Flight data:	
Operating ceiling, m	**5000**
Operating ceiling, 1 eng.:	
- IUAI, m	**2000**
- IUAI, +20 °C, m	**500**
Hover ceiling with ground effect:	
- IUAI, m	**4300**
Hover ceiling w/o ground effect:	
- IUAI, m	**3700**
- IUAI, +20 °C, m	**2600**
Ascensional rate, max., m/s	**15,0**
Speed, cruise H=0, km/h	**230**
Speed, max. (VNE), km/h	**260**
Flying range with standard fuel, km	**670**
Flying range with fuel in add. tanks, km	**920**
Flight duration with standard fuel, w/o reserve, h	**4,4**

the Ka-32A model.

The program will be worked out in three main directions: increase of airtlift capability, altitude performance and engagement of various equipment options.

To enhance airlift capability of the helicopter new main rotor blades are planned to be used that passed the tests and confirmed their specifications.

In the future it is planned to replace the TB3-117 engines for those of increased capacity – BK-2500, which would increase the airlift capability of the machine up to seven tons.

The helimen say that in that case the machine would have no rivals. See it yourself: a crop tree of fine wood weighs about 5-7 tons, so its removal without severing will yield boards of the length up to 8 m, and those are twofold more expensive than those of 6 m.

The increase of altitude performance will be implemented as on account of the engine replacement, so that of the currently used auxiliary power unit (APU) for more advanced APU TA-14.

All this would enable the helicopter to rocket up to the height of more than 4000 m. The developers also cared to increase flying range of the machine, especially with the external load sling system.

For this, two additional fuel tanks will be installed on a special frame on the helicopter (500 l each) which would increase the flying range from 800 to 1000 km, and the duration of up to 4,5 hours. By the way, one such helicopter is already built for an Irish company.

And the last but not least: today Kamov JSC negotiates a new variant with the potential customers – a helicopter airliner Ka-32-11 with the same engine unit, main rotor, main gear and other powerplants as on Ka-32A11BC but with the modified hull.

Such machine is intended to carry 20 passengers, it well be equipped with the WC and luggage compartment. Besides, all the inboard furnishings will be completely different.

Altogether, the future of this unique helicopter appears to be quite successful. Today, apart from Canada and Europe, this helicopter has been certified and operated in several more countries accepting the FAR 29 regulations – in Taiwan, Mexico, South Korea, China, Japan, Indonesia and Chile. And the developers still make (not ungrounded) plans of conquering the world!

Ka-32A11BC

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Everyday life of the leading southern operator of Russia

Interview with Andrey Kozlovsky, the General Director of PANH Helicopters, Krasnodar, Russia.

PANH Helicopters is considered to be the regional leader at the fire-fighting service market. What are Your business forecasts for 2011?

It is true that our helicopters and crews participate in fire-fighting in Cyprus, Greece, Turkey. The fire element in these regions demonstrates certain periodicity; despite constant annual amount of the wild fires, each third year turns out to be extremely fire dangerous. In any case such processes are not subject to control. This is the way of the local authorities: every year they confirm the order for the same number of the helicopters. The tender for fire-fighting service was already held in Turkey and Cyprus – we got the order for the same number of the helicopters as in the previous year. Now the seasonal tender is expected to be held in Greece, and we keep following the situation: yet it is difficult to say if the financial crisis affects the volume of orders.

What part of the Turkish market of helicopter fire-fighting is owned by PANH Helicopters?

Of course, we are not for the whole 100% of this country market, but such negotiations are being held now. For two years on end we have been sending 12 helicopters to Turkey. Actually, the bidders of the national tenders for these services are the Turkish companies. The winners decide what company is to be involved into the aviation works. We have the 5-years contract, but we are also interested in the tenders for the additional helicopters.

Has the competition for this segment of the helicopter business been growing in Turkey and the South Europe?

We were surprised but there was not a word about the competition there. Recently we have been in short supply for the machines. Such became the situation at the Turkish market, so we can not expand the number of the operating helicopters. Despite the volumes of works at the Russian market and anything our partners from Greece would be able to propose, our positions in Turkey would remain the same. This market is easy to stabilize. Year in year out the tenders here are won by the same companies – the main players at the market with positive reputation promoting balanced pricing policy. And in this sense the market has been divided. From the part of the helicopter operators the difference is small: the market is by 60-70% divided among the leading companies; the rest of the share is every year fought for.

The competition at the fire-fighting services market of this region also depends on the other segments of the helicopter business: if the volumes of the oil companies' works at the north of Russia increase, the competition in the fire-fighting segment in the south is considerably reduced.

For example, in 2009 the volumes of works for the helicopter operators in the oil segment were insignificant, many free helicopters appeared, and their offer increased in the South Europe and in Turkey. But I repeat that such competitive pressure affected no more than 30% in Turkey, for the rest part of the orders has been based on the long-term contracts.

What are PANH priorities for the current year?

It is the shoulder season now – as of the helicopter performance on the territory of Russia. The only region where the Russian helicopters work constantly is Afghanistan. There is also work for the civil operator like PANH – humanitarian assistance, product supplies, freight cargo transportation and mounting works. Now the company is involved in preparation for the summer period – for the fires and the works in the oil segment of the Siberia. We are constantly performing concurrent activity looking for the customers both in Russia, and abroad.

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Advantages of the Russian helicopters

An interview with the Deputy General Director, Int'l Sales and Marketing of Air Company VERTICAL-T - Ludmila Baraney.

Tell us about the Air Company's VERTICAL-T achievements in work upon international projects?

Of course, the main achievements for the commercial helicopter operator are its contracts on rendering aviation services. Our partners and customers are leading international organizations, involved in various business areas. Among there are such companies as the United Nations, WFP (World Food Programme), USAID (United States Agency for International Development), Skylink Aviation, Scorpion International Services S.A., PME International, the Supreme Group.

Over the recent years Afghanistan has become the area of active aviation operations for our Air Company. It's obvious that today it's one of the most popular markets for the Russian helicopters, especially for Mi-8MTV type. Two our helicopters Mi-26T have also been operating in this country. In Afghanistan we perform various missions for the ISAF (International Security Assistance Force), other international communities and render assistance in rehabilitation of the country's infrastructure. Our Company's activity in Afghanistan is Russia's substantial contribution to the country's stability, required for more safety for residents and sustainable development. Apart from transportation of the international organizations' officers and medical workers the Air Company helicopters take part in dam and road construction throughout the country and transportation of various cargoes, including oversized ones.

What is the location of the Air Company's international operations? What areas are the most perspective ones?

Air Company VERTICAL-T has wide experience in helicopter operations all over the world. Over the past ten years we have worked in the Republic of Cyprus, Yemen, Afghanistan, Greece, Sierra – Leone, Congo, the Western Sahara, the Republic of Sudan, the Republic of South Africa, Pakistan, Nepal, Turkey and Kosovo. The most perspective areas are Afghanistan, Africa (UN missions), where we have performed and will perform operations. We also consider such regions as Indonesia, Australia and Latin America as the perspective ones. The helicopter services market is rapidly developing in these countries.

The only difficulty is the issue of certifying the Russian helicopters and equipment. But now we are successfully dealing with these problems. At present the Latin-American market seems more attractive to us, but the project is still under development. The main question is whether our helicopters with Russian registration will be able to perform operations in these countries.

How has the increase in Russian aerotechnics' operating costs influenced its competitiveness over the past 5 years?

We haven't witnessed any noticeable increase in competition. The national helicopter Mi-26T is just unique! And the most famous MI-8MTV/AMT (MI-17) is probably the most reliable compared to foreign helicopters of the same type. Especially it concerns the world's remote areas. It's surely Afghanistan, Pakistan and many other countries. In terms of practical experience rather than theoretical research Russian-manufactured helicopters Mi-8MTV are the best ones for the present time in such regions as Afghanistan. It has been confirmed not once by helicopter experts. But the main proof is a steady customers' demand, specifically for these helicopter types.

The unmatched durability of the Russian helicopters and the price and quality parity make the ones Mi-17 type decisively advantageous in these conditions.

Afghanistan is a country with adverse climatic conditions. Despite a large number of clear days flying may be restricted due to the dust-storms and visibility deterioration because of the dusted atmosphere and high air temperature. The aviation operations are rather often executed on high-mountain helipads, where the thin air limits aircraft operating capability. Taking off technique and acceleration rate in such conditions differ dramatically from those from standard aerodromes.

Weight-lifting, versatility and reliability of the helicopter Mi-26T, and also the capability of simultaneous transportation of cargoes up to 20 tons, both in the cargo compartment and on an external sling, have made this helicopter unique. Namely due to these specifications the helicopter Mi-26T of the Air Company VERTICAL-T has executed a number of unique operations in Afghanistan which no helicopter in the world could have performed. The President of USA Barack Obama expressed gratitude the Air Company VERTICAL-T for one of these operations in 2009.

***

Air Company VERTICAL-T was established on March, 1st, 1992. Today "Vertical-T" is one of the leading Russian helicopter companies carrying out aviation works worldwide. The Company's fleet consists of: Mi-26T (3), Mi-17 (9), Mi-8P (2), Mi-8T (10)
Total – 24.

The Air Company services:

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- Firefighting
- Parachute jumping
- Assembling operations
- Fuel delivery
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Chronicles
OF RUSSIAN HELICOPTER INDUSTRY

RUSSIA INTRODUCES NEW HELICOPTERS TO INDIAN AVIATION MARKET
February 09, 2011

Russian Helicopters, the subsidiary of United Industrial Corporation Oboronprom, presented its lineup at the 8th International Exhibition on Aerospace, Defence & Civil Aviation Aero India 2011 – the premier air show in the region.
The exposition at Stand A 26 showcased the light multi-role Ka-226T, medium civil Mi-17 helicopters, the all-weather Ka-32A11BC, heavy Mi-26T2, and the Mi-28NE – the export variation of the cutting-edge Mi-28N Night Hunter attack helicopter that is in service with the Russian Army.
Several contracts were signed with Indian civil helicopter operators in 2010, for the delivery of 4 Mi-172 and 2 Ka-32A11BC helicopters. They will be delivered in 2011-2012. The Mi-172 is already certificated in India. The Ka-32A11BC also recently received certification in December 2010. It was certificated by EASA in 2009.
The multi-role Ka-32A11BC will make its debut in the region. The machines on display at the Air Show are being acquired by Global Vectra Helicorp. The company is planning to use them for cargo transportation and construction work in the civil segment. The first Ka-32A11BC is scheduled for delivery to India in 2011, and the second in 2012.

KA-32A11BC CERTIFIED IN INDIA
February 08, 2011

The Ka-32A11BC, the Russian civil all-weather coaxial helicopter, has been certified for operations in India.
The Directorate General of Civil Aviation of the Republic of India (DGCA) allowed operations on the basis of the certificate issued by the European Aviation Safety Agency (EASA).
EASA issued a standard EASA.IM.R.133 certificate for the Ka-32A11BC in 2009. The certificate allows any company to commercially operate the helicopter. In 2008 the Ka-32A11BC was certified in China, Indonesia, and South Korea. In 2005 it received Mexican certification.
The helicopter received a supplement to the airworthiness certificate in 2006 in Canada. This allowed the helicopter to carry corporate passengers (the Canadian certificate itself was issued in 1998). The certification procedure for the Ka-32A11BC has also been started in Brazil.
Thus the Ka-32A11BC has been certificated in the world's major regions: in America, Europe, and Asia. Ka-32A11BC helicopters of various modifications are successfully operated in Spain, Portugal, Switzerland, Canada, South Korea, Taiwan, Japan, China, and other countries.
In July 2010 the Russian helicopter industry holding Russian Helicopters, a part of United Industrial Corporation Oboronprom, signed a contract with the Indian company Global Vectra Helicorp on the delivery of a Ka-32A11 helicopter.
Unlike the Mi-17, traditional for the Indian market, the Ka-32A11BC will make its debut in the region. Global Vectra Helicorp is planning to use the Russian rotorcraft for cargo transportation and construction work in the civilian segment. The Ka-32A11BC is scheduled for delivery to India in 2011.

INDO-RUSSIAN COMPANY INTEGRATED HELICOPTER SERVICES PVT. LTD. OPENS RUSSIAN ROTORCRAFT SERVICE CENTRE IN INDIA

February 07, 2011

The Indo-Russian Maintenance and Repair venture, Integrated Helicopter Services Private Ltd.(IHSPL), established by Russian Helicopters, a part of United Industrial Corporation (UIC) Oboronprom, and Indian company Vectra Group, is opening a service centre for all type of civil Russia-made helicopters in the Republic of India.

The opening ceremony took place in Greater Noida, a New Delhi suburb, on 7 February 2011, two days before the Aero India 2011 international exhibition (in Bangaluru).

"The service centre, Integrated Helicopter Services Pvt. Ltd. (IHSPL), will offer maintenance and repair services for the Indian fleet of Russia-made helicopters," said S.B. Prasher, CEO, Integrated Helicopter Services Pvt. Ltd. (IHSPL).

"The opening of a service centre in India is a very important event for us," said Dmitry Petrov, CEO, Russian Helicopters. "We are planning to make this centre one of the key elements of our support network for existing Russia-made rotorcraft and Mi and Kamov helicopters delivered in the future to India and South-East Asia as a whole."

The plans of the Indo-Russian joint venture Integrated Helicopter Services Private Ltd. (IHSPL) envision that the service centre will become the stronghold for warranty service of Russia-made rotorcraft in India. The centre will offer Indian operators and state aviation organisations aftersale service, as well as scheduled maintenance and unscheduled repairs of any Mi and Kamov helicopters. In the future, Integrated Helicopter Services Private Ltd. (IHSPL) is planning to provide major repairs, including engines and avionics, and to offer user maintenance. The service centre is also planning to have a training centre, and a supply base to provide spare parts to Indian operators of Russian rotorcraft.

The aim of the programme is to support Russian-made rotorcraft throughout their lifecycle. As part of this programme, new MRO centers are being established and the existing centers are being certified in key for Russian Helicopters regions of the world, including India, which is a traditional market for the Russian helicopters. At present, Russian Helicopters is the only official supplier of Russian civil helicopters to India. Military helicopters are supplied by FSUE Rosoboronexport. However total support to IAF and other forces shall be provided by Integrated Helicopter Services Pvt. Ltd. (IHSPL).

Today, Russia-made rotorcraft form the core helicopter fleet of the Indian armed forces. More than 200 Russian helicopters are in service in India: the Mi-25 (the export variant of the Mi-24D), the Mi-35, the Mi-26, and the Mi-8/17.

RUSSIAN HELICOPTERS, JSC FINALIZE CONSOLIDATION OF HOLDING'S ASSETS

January 04, 2011

Russian Helicopters, JSC, that makes part of UIC Oboronprom, consolidated control stock of all Russia's rotorcraft-building enterprises, thus finalizing main formation stages of united Russian holding that deals in helicopter design, manufacture and servicing.

Within the scope of the final stage Russian Helicopter acquired 1,202,973,854 ordinary registered shares of Rostvertol, PLC bringing its ownership of company's equity from 22.76 % to 75.06 %.

Russian Helicopters acquired these shares with borrowed funds.

Currently Russian Helicopters, JSC owns the following helicopter-building enterprises' share packages:

Mil Moscow Helicopter Plant, JSC - 72.38 % of company's equity, 2,524,636 ordinary registered shares, 494,370 preference shares;

Kamov, JSC - 99.79 % of company's equity, 1,360,447,119 ordinary registered shares;

Stupino Machine Production Plant, JSC - 59.9987 % of company's equity, 89,680 ordinary registered shares;

Ulan-Ude Aviation Plant, JSC - 75.09 % of company's equity, 200,687,483 ordinary registered shares;

Kazan Helicopters, JSC - 65.90 % of company's equity, 101,929,459 ordinary registered shares;

Kumertau Aviation Production Enterprise, JSC - 100 % of company's equity, 377,647 ordinary registered shares;

Helicopter Service Company, JSC - 100 % of company's equity, 165,000,000 ordinary registered shares;

Reductor-PM, JSC - 80.84 % of company's equity, 5,497 ordinary registered shares;

Progress Arsenyev Aviation Company, JSC, named after N.I.Sazykin - 74.97 % of company's equity, 301,166 ordinary registered shares;

Rostvertol, PLC - 75.06 % of company's equity, 1,726,445,119 ordinary registered shares.

In 2008-09 in order to centralize control functions Russian Helicopters, being a 100% subsidiary of UIC Oboronprom, became the management company of all enterprises that make part of RH holding. This ensured introduction of the common policy in production, marketing, sales and service support. As a result, helicopters' sales increased.

Current changes in the Russian Helicopters ownership of assets are linked to the company's plans on further development and perspective projects' implementation. Company's strategic aim is to strengthen its positions on the global rotorcraft market.

TEN MI-8AMTSH HELICOPTERS FOR MINISTRY OF DEFENSE OF THE RUSSIAN FEDERATION

December 21, 2010

Under implementation of the Russian Federation Air Force Modernization program JSC Ulan-Ude Aviation Plant being a part of Russian Helicopters holding company supplied 10 Mi-171AMTSh (export part number Mi-171Sh) helicopters to Ministry of Defense of the Russian Federation. Acceptance of the helicopters by the Customer was over in early December 2010. On the 21st of December, the helicopters started ferry flight from Ulan-Ude to one of the Air Force military bases in the European part of the Russian Federation.

Nowadays Mi-171AMTSh (Mi-171Sh) helicopter appears to be one of the most popular medium military transport helicopters all over the world. Experts feature versatility of the helicopter and its high performance. Due to weaponry and protective means set the helicopter bears a nickname "Terminator" given by reporters. Mi-171Sh helicopter proved out itself in military conflicts, anti-terror operations, counternarcotics actions and search and rescue operations. At that, the helicopters demonstrated high performance in highland areas and hot climate.

First deliveries of Mi-171Sh helicopter to foreign customers were fulfilled in 2002, upon completion of several tests. Over 120 helicopters were delivered through FSUE Rosoboronexport to a number of Middle East countries, South-East Asia, Africa, Eastern Europe. Remarkable fact is that the helicopters were purchased not only by Russia's partners in the field of military-technical cooperation, but also by NATO countries. During the period of 2005 to 2008, 26 helicopters were delivered to Czech Republic and Croatia.

According to the policy of the Russian Federation Government regarding modernization of the Armed Forces Ministry of Defense started purchasing Mi-171AMTSh helicopters. In 2009 a government defense order for delivery of the first batch of the helicopters was placed in JSC UUAP. In 2010, delivery of Mi-171AMTSh helicopters was continued.

Following the concept of purchasing only modern and high-efficiency weapon, Ministry of Defense of the Russian Federation imposed special requirements on the helicopters. So at the customer's request Mi-171Sh helicopters were equipped with new systems improving efficiency of their combat use. Besides, the helicopters are fitted with special equipment sets including search and rescue and medical facilities. In order to attain a combat task the helicopters are equipped with protective means sets, as well as avionics and instrumental equipment enabling flights in adverse weather conditions at any time of the day.

At the moment Ministry of Defense of the Russian Federation is planning to continue purchasing of Mi-171Sh helicopter in 2011.

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