



Interview with Volga-Dnepr Group Top Management Team



Alexey Isaikin, President, Volga-Dnepr Group: “We see the future success not in exploits of lone heroes but in joint effort of management team and owners of the business. That is why my wish was that the interview should be conducted not just with CEO but with the whole team of our managers. It would be impossible to achieve a sound result in such complex and sophisticated business like this if everything as in hands of just one person.”

Strategic objectives

Sergey Shklianik, Senior Vice-President, Volga-Dnepr Group: “Total revenue of the company is expected to reach approximately \$7 billion in the year 2020. This is five times greater than now. The revenues would be split 50:50 between our two core businesses: charter flights and scheduled operations. As to the market share, we expect following situation. By that time, we could take about 50% of the global market, our share in ramp aircraft segment reaching around 85%. Speaking about scheduled operations where

competition is extremely tight, we expect to join top ten global air cargo operators by the year 2020, which would require us to take at least 7% of the global air cargo market. Based on current traffic figures, this means around 1.2 million tons of cargo. Additionally, we are now setting up a proactive effort to develop a new business – aircraft maintenance and repair services, where we also expect to join top ten major providers by the year 2020. We have dedicated a group of businesses as part of our group to this project which specialize in this sector and allocated necessary staff and resources to maintain robust growth.”

“A few words about labor efficiency. It is widely believed that it is very low in Russia. But this is another example of judging by the average. Absolute numbers are not so meaningful. For Volga-Dnepr, average revenue per employee is nearly \$0.5 million per year; this is about twice as much as for any other Russian airline. However, this figure is lower than for Cargolux, a globally recognized leader in our sector. They show about \$0.7-0.8 million of revenue per employee per year, and we clearly understand that if we want to join the top ten air cargo carriers we have to align our performance with these figures.”

“Capitalization is a more complicated issue. Volga-Dnepr today is not yet a public company, so it is pointless to set any measurable targets in this regard until we have some solid point of reference. Of course, there are some estimates that are of importance to us. We have these figures on record as part of one of our key performance indicators. Let me explain. We need capital resources to fulfill our strategic objectives I have mentioned earlier. This means considerable investments. So it is evident that access to capital market and direct investments will be a necessary precondition for us to be able to sustain future growth. That is why, though it is too early to speak about even approximate dates when our company could launch initial public offering, I can assure you that we keep preparing ourselves to this step and wait for the most favorable conditions, and when the right time comes, we will do it.”

Talent

Alexey Isaikin: “Now, after 20 years of existence, we understand it clearly that success is not only equipment. Our main asset is people, and not airplanes, so we must take good care of our people. The issue of generation change is critical not only for business owners and top managers. Succession is a great challenge at operational level too where line personnel must be replaced in a timely manner in

order to maintain business stability. Highly professional talented staff we have as part of our Soviet heritage is now approaching retirement age. Senior management members, people who created this company and who were the first to engage in the process of transformation of air transport aviation into civilian business, are also ageing. At a certain point in time we understood that we needed a systematic long-term solution to this issue which would help lay the foundation for future growth of Volga-Dnepr Group over the next 20 years. Our formal research is limited to projections till the year 2020; however, our internal projections are till the year 2030. It is not because we want to appear so foresighted, it is just the logic and dynamics of our business that urge us to broaden the time scale of our studies. Planning from 20 years perspective is better suited for both fleet development and talent management systems. The above two processes are strongly linked to each other and just cannot fit into a 10-year period. As we set ourselves very ambitious goals, we understand that we will need best staff available in the industry to achieve those goals. I mean best pilots, best mechanics, best market analysts, etc. At the same time, our route network already covers a major part of the planet, and it keeps growing. The two factors – continuous improvement and truly global nature of our operations – have urged us to ‘internationalize’ the company. It is not to say that we did not have international staff before – we started employing people internationally long time ago, both to operational and to management-level positions; however, this process was sporadic. It was not a consistent effort; we just did it on a case-by-case basis. Now the company uses quite different approach to talent management. We consciously and consistently follow the path of creating a truly international team of best industry experts where every member could make a unique contribution to common intellectual capital of the company. Today, Volga-Dnepr already has a qualification management system in place which is based on a package of agreements with domestic and international higher education organizations providing us with new employees, on one hand, and our own internal training system, on the other hand.”

“In this conjuncture, we already see a clear need for correcting limitations imposed by Russian legislation which, for example, does not allow foreign citizens to receive rating of Captain in Russia. While this restriction was justified back in 1990s, now it just makes no sense. Vast pool of flight operations personnel trained during USSR times is now depleted. Moreover, Russian economy is more and more affected by globalization, and this trend just cannot pass by the employment market. Adjustments to regulations would enable business growth and new jobs being created both in Russia and abroad. Today, our domestic and international businesses are absolutely interdependent: without international operations and sales we would be unable to expand and create new jobs in Russia. Air transport business, I dare to remind, has one of the highest multipliers, and many other industries apart from aerospace strongly depend on it, for example, tens of branches of machine-building industry, base metals production, software development, construction, etc.”

“I would not hide the fact that work in our company with its global nature requires a lot from people. They have to work all over the world away from home, sometimes with lack of conveniences. Therefore, hiring and retaining personnel with required qualification is critical to us. We find new people in Russia and internationally and use every effort in order to retain the best of them. It can only be done if the company is able to offer truly interesting jobs with new modern equipment. Therefore, we consciously invest in modernization of Volga-Dnepr fleet of aircraft choosing best available equipment from Russian and international manufacturers. Now the company has its own Engineering Research Center where specifications to new aircraft are developed as part of company fleet development program. Operating experience accumulated by the company over years of its existence enables us to see clearly what should be changed in baseline design of each aircraft model in our fleet based on business requirements of Volga-Dnepr Group. Now majority of carriers, including us, operate versatile models which are designed to accommodate military needs. New airplanes that we are going to order and purchase as part of our twenty-year development program will be very different.”

Aircraft fleet

Valery Gabriel, Executive President, Volga-Dnepr Airlines: “Our charter business currently employs aircraft of two types: An-124-100 and IL-76TD-90VD. An-124-100 is a unique airplane able to take things that no other aircraft in the world can carry. These are cargoes of up to 150 tons in weight – we already have several aircraft in our fleet that have been upgraded to accommodate such loads. Our company today operates the world’s largest fleet of ten aircraft of this type.”



“For An-124-100, we are now implementing a program for deep modernization of the type, which includes upgraded engines and replacement of avionics system. Overall cost of the program that covers the whole fleet is approximately \$500 million; this money has to be invested over the next 6 or 7 years. Big money, but this investment will allow us to extend life of our An-124 fleet to the year 2035 as a minimum. The oldest airplanes in our fleet have already operated around 22 thousand flight hours, and with our modernization program we will be able to keep the planes flying up to 60 thousand flight hours. This project is critical to our company, but it is still not the most important one. The most important project is production of airplanes of An-124 family. Our company is not only the customer for the design of new model An-124-300 but also will

be the major buyer of new airplanes. The new model will exceed similar models in all the key parameters and in operational economics in the first place. We estimate the new model to exceed the part of our existing An-124 fleet that has already been modernized by more than 10%. In total, we intend to purchase 40 An-124-300s which will enable us to control up to 85% of the global oversize and heavy cargo market.”

“I would like to mention that both programs – modernization of the existing fleet and purchase of new airplanes – are closely tied to each other. The \$500 million that we are investing in modernization of the existing fleet will allow completion of major part of R&D works and creation of engineering basis for the launch of production of new An-124-300s. In fact, by this our company contributes to a large-scale national project.”

“IL-76TD-90VD with maximum payload of 50 tons is also an aircraft that is one of a kind in its class. By the way, last two letters VD in designation of the model refer to Volga-Dnepr. It was Volga-Dnepr who provided finance for design of this new model which included re-engineing and installation of new avionics and flight control system. This gave the aircraft a new rise enabling it to fly anywhere in the world without restrictions. Today there are already three aircraft of this type in the company’s fleet, with two more expected to add early in the next year. Our plans are to complete up to 20 aircraft of this type by 2020.”

Alexey Isaikin: "Expansion of Boeing-747 fleet employed in our scheduled operations will go in parallel. We have already signed a contract for delivery of 5 aircraft of the new Boeing-747-8 modification, and there is also an option for 5 more such aircraft. I would stress that our plans are not limited to this contract; however, it would not be in the best commercial interests of Volga-Dnepr if I showed the whole picture right now. It is enough to say that the contract and the options that I have mentioned already take us to top twenty companies operating similar aircraft."

Diversification

Alexey Isaikin: "In addition to developing our own maintenance business, we are launching another new project named 'Small Air Cargo'. Its main focus is the development of regional air cargo markets, first of all, here in Russia where this service is almost not present at all. So far, we employ An-12 aircraft in this project, and now our goal is to replace those aircraft with new generation airplanes in the nearest future, particularly, with upgraded version of Boeing 737. It appears to be the most feasible option so far, but it is not our final choice. We are following the market closely to see what both domestic and international manufacturers can offer in this class, and a decision in this regard is still yet to be made. There is another project that is directly related to this one: cargo hub development in Russia. We use major hubs all over the world: Frankfurt and Amsterdam in Europe; Shanghai in China; Sheremetyevo and Domodedovo in Russia. Unfortunately, Russian airports are no match to international hubs where we operate. Frankly speaking, Russian airports fail to meet even minimum requirements of transport logistics. That is why we are now proactively promoting a project of creating a federal network of hubs which will be first launched in Moscow with Krasnoyarsk, Vladivostok and St.-Petersburg to follow."



Sergey Shklianik: "If we talk about planning up to 2020, the core of our business will continue to be comprised of charter and scheduled air cargo services. No crucial changes are expected in this regard. However, we attach high importance to development of supporting and auxiliary businesses. I would like to add a few words about a project that has already been mentioned here: 'Small Air cargo'. At current stage the goal of the project is to connect regional feeder flights to the spokes of our hubs in Russia. In theory, once we have successfully implemented this project domestically, we could project this scheme to other states where we operate, first of all, China which has become 'the world's assembly shop'. It is China where this business is required the most, since many global export traffic flows finally converge in the country's major hubs. Second portion of this business is made up of services of integrators which are still underdeveloped in Russia and CIS due to backward infrastructure but, in our view, would be in very high demand."

Alexey Isaikin: Our focus on hub and ground infrastructure development applies only to our home country. We are not willing at all to do this somewhere else in Europe or in China or in Japan. There, local companies have already got this area covered, and they do their job in a highly professional and efficient way. Here in Russia, we have to do everything ourselves because it seems like no one else is able or willing to do this."

Sergey Shklianik: "At the current stage we really have to do everything ourselves. But if we finally manage to make it a marketable service, it can become a new business sector."



Victor Sherin, General Director, Volga-Dnepr Technics: "We first faced the need for own maintenance operations back in 1990 when the company was only starting up. There was absolutely no maintenance infrastructure for An-124 existing at that time. Aircraft had to be ferried to manufacturer's facility for all repairs and shop visits. It was the first problem that we had to resolve. Two years later we set up our first maintenance base in Ulyanovsk. But by that time our aircraft were actually flying all over the world, so it was at the very least unreasonable to ferry back to Ulyanovsk each time a need for maintenance arose. Therefore, the company decided to set up two more maintenance stations in 1996: in Shannon (Ireland) and Sharjah (UAE). The first base served European and Trans-Atlantic flights, while the second one covered Africa and Middle East. At first, both bases concentrated on maintenance of Volga-Dnepr's own aircraft, and such focus was quite reasonable for Shannon operation; however, it was not the case for Sharjah base. Number of orders for Volga-Dnepr's air services generated in the region suddenly dropped soon after the base started its operations, so we had to endeavor to penetrate local markets and try to offer our services to other airlines. As a result, now we have a rather wide experience of operations in this field, both in servicing our own fleet and third-party aircraft. The next twist of our aircraft maintenance business development started with establishment of AirBridge Cargo Airlines. AirBridge Cargo's fleet was comprised of Boeing-747 airplanes for which maintenance services were totally unavailable in Russia at that time. At first, we expected that the problem could be resolved through outsourcing but soon we saw that the cost of such services affected overall operating economics of the fleet. As a result of our considerations, we finally arrived at a decision to establish our own maintenance operation for Boeing-747s in Ulyanovsk where there is the only hangar in Russia that is able to accommodate aircraft of this class. But that time we, unlike our prior endeavors, from the very beginning accounted for servicing both own fleet and third-party aircraft on contractual basis. Our operating experience has shown that such business arrangement where we serve both own and others' needs proves to be quite economically justified, so we are going further establishing maintenance operations at hubs of Volga-Dnepr's route network. A hangar is being constructed for us at Leipzig airport, another one in Sharjah is at completion stage. We are also considering construction of hangars at Ulyanovsk and Moscow airports. So far, we serve aircraft of only three types (An-124, IL-76 and Boeing-747), but we expect Boeing-737, -320 and some other types to add



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to the list as soon as by the year 2015. Moreover, we are now considering mobile maintenance bases which could move along with changes in route network structure. We have already gained some relocation experience as we moved our base from Ireland to Leipzig in three months.”

Environment

Sergey Shklianik: “By its nature, our business is pure service. We serve global economy, so everything that happens with it immediately affects our business. From history of our route network development it is possible to see clearly how global export and import flows have evolved and how production capacities have migrated over the past twenty years. That is why, speaking about major factors affecting our business, I would name health of global economy in the first place. It is immediately followed by condition of our fleet and replenishment of staff, both being equally important, with the issue of aviation fuel cost in the third place. To the point, the latter is also one of major global problems as growing fuel cost may become a serious challenge to development of air transport in future. The fourth most critical risk factor is the condition of ground infrastructure, because generally there is an increasing gap between development of ground infrastructure in Russia and CIS and actual market requirements, and this is true not only for air cargo services.”

“I have already touched the issue of global economy in the beginning, but I guess it should be revisited here. Based on our experience, we strongly believe that global economy will finally recover and continue to develop in a longer term. Of course, another crisis is possible, and even a very hard one. But overall trend is expected to be positive over the next ten to twenty years period. Then, the requirement for air cargo services will grow accordingly. Over the recent ten years air cargo business has repeatedly overrun passenger services in growth rates, so the potential for further development in this area is far from being exhausted. On the contrary, we are currently at a stage where customers, having tried the service, are getting used to it. While before it was accessible and known to a limited number of customers, now it is actually becoming an essential part of many important business models. Some say that it is bad that lifecycle of many consumer goods is shortening, but for our business it is good because requirement for rapid and reliable logistics is growing faster.”

Dmitry Obsharov, Director of Marketing and Strategic Planning Department, Volga-Dnepr Group: “According to our projections which generally converge with estimates by Boeing and Airbus experts, air cargo services market will grow at an average rate of 6% per year during the next five years. In monetary terms, we are talking about projected market growth from today’s \$70 billion to \$123 billion in 2020. Moreover, some segments of air cargo markets show even higher growth rates. In particular, charter and air cargo freight (wet lease) services are growing by no less than 8% every year. Within the period up to the year 2020 it can lead to changes in the structure of air cargo market. Thus, charter services segment is expected to grow from 10% to 15 % of total air cargo market. Given these trends, we can expect ramp segment of air cargo market to grow from today’s \$1.6 billion to \$5.5 billion in 2020.”

“We also expect considerable dynamics in Russian air cargo market. Its current size does not exceed 2% of global market, i.e., approximately \$1.5 billion. However, as growth rates have been very high here both immediately after the crisis and in 2010, we expect that during the period up to 2020 the market will double up reaching approximately \$5.5 billion. The main factor contributing to this robust growth will be transit shipments from Asia to Europe and the Americas. According to our estimates, share of such shipments in total air cargo traffic in Russia will reach 50% by the year 2020. Transit route across Russia is much shorter and cheaper than so called ‘Southern Corridor’ that has developed during the years of Cold War. Growth of traffic along this route is now boosted by growing fuel prices and low marginality of air cargo business.

As part of implementing flight safety policy by Volga-Dnepr Group, Accident Forecast and Prevention Automated System will be established in flight operations. The project is aimed at reducing the number of aviation occurrences, incidents and accidents.

The project is intended to improve flight safety of commercial carriers by way of transition to risk management prevention system based on comprehensive quantitative risk assessment using software and mathematic simulation.

Vyacheslav Sirota speaks about the progress on the project:



The project has several stages:

Stage 1 - Outline design. Definition of approach methods and principles. Defining the list of necessary documents.

Stage 2 – Engineering design. Defining all algorithms for calculation of aviation occurrence probability, and

developing main approach principles for probability calculation.

Presently, we are at a very important Stage 3, busy with development of working documents, algorithms and software. As early as by the end of this year, we are going to be through with the software development and preliminary testing.

The project is aimed at resolving 4 objectives.

First, creating on-the-spot forecasts for aviation occurrence (incident) probability for the forthcoming flight operations, i.e. probability of a certain incident will be calculated based on known departure and destination airfield, crew and aircraft with consideration of all “threat factors”.

The idea of a sort-term forecast is based on monitoring piloting quality data. Frequency of type -similar piloting deviations will be identified, while any such piloting deviation (error) being a “threat factor”, the progress of which might cause an aviation occurrence. Thus, when there is a short runway at the airfield of landing, and the landing is going to be operated by a pilot featuring higher frequency of error at landing, then such “threat factor” may become significant in runway overrun by the airplane.

In the same way, all major airplane systems and engines are monitored.

Using history databases, failure frequency since aircraft or engine entry into operation is determined, and accordingly, “threat factors” per AIRPLANE in the forthcoming flight will be identified.

In short-term forecast, ENVIRONMENT factor is very important using such information as weather at a destination airfield, runway condition, bird control conditions at destination etc.

Considering all of these factors using probabilistic mathematics, problem probability which may lead to an aviation occurrence for

a certain flight will be determined. For cases of unacceptably high probability, the software uses its Man-Machine-Environment factor analysis modules which, in terms of given data, determine certain "threat factors" which resulted in unacceptable probability.

Further, the information is provided to flight operation control to develop measures minimizing the identified threat factors. In a similar way, 14 occurrence types (ARC, BIRD, CFIT etc.) are monitored using a short-term forecast

The main objective of occurrence probability forecast is identification of all possible causes which may affect safety of a planned flight and taking prompt preventive measures.

Second, creating long-term forecast for periods with critical levels of aviation occurrence probability

The main purpose of the long-term forecast is identification of relation between investment in MAN-MACHINE-ENVIRONMENT model and time of "critical probability period". In other words, the time of aviation occurrence will be determined when there is no investment in MACHINE and MAN factors, and how then this period will change provided targeted investment ensured.

Third objective is quantitative assessment of risk to flight operations in monetary and physical terms. Monetary risk

assessment means a determination of average damage per 1 flight hour in a projected period (month, quarter) in terms of average calculated MAN and MACHINE factors. The calculation includes all of the 14 occurrence types. Resulted from this calculation, one can assess, in the short-term, efficiency of money investments in measures aimed at prevention of aviation accidents. Quantitative risk assessment means probability determination for human casualty resulted from aviation accident. Probability calculation will be performed using aviation disaster historical data.

Fourth objective is automation of the Company utilized method in establishing flight safety target performances for the next period (quarter, year).

Summarizing the above, it would be noted that Accident Forecast and Prevention System in Flight Arrangements and Operations Project serves as an instrument to identify both threat factors and deficiencies in arrangement and operation of air transportations..The Project is also taken as information source for implementation of preventive measures aimed at ensuring safety of flight operations and effective investments in Man-MACHINE-ENVIRONMENT multi-factor model.

Volga-Dnepr Group and Antonov Commit to Modernisation of First An-124-100 to New An-124-111vd Standard

Russia's Volga-Dnepr Group and Antonov Company of the Ukraine have reached an agreement to upgrade the first one of Volga-Dnepr's fleet of AN-124-100 'Ruslan' freighters to a modernised AN-124-111VD standard in the latest step towards relaunching serial production of this unique cargo aircraft.



On August 17th 2011, Dmytro Kiva, President and General Designer of Antonov, and Alexey Isaikin, President of Volga-Dnepr Group, signed three documents at the International Aviation and Space Salon MAKS-2011 in Moscow covering the decision on aircraft modernization, the specifications of requirements for research and development and the cycle schedule for R&D.

The technical specifications in the agreement envisage that the modernised AN-124-111VD will have a take-off weight of 402 tons, a cargo lift capacity of 150 tons, a flight range of at least 5,000kms with a 120 tons payload and a minimum crew of three persons. Avionics and some of the aircraft systems will be replaced with digital systems.

The aircraft will be equipped with new 3M series D-18T engines with the FADEC digital control system. The engine lifetime will be equal to 50,000 hours and 11,111 cycles. Environmental characteristics of the engines will be upgraded to meet international standards in accordance with emission levels stated in the

ICAO Annex 16 volume 2 requirements. The AN-124-111VD will also comply with the noise requirements of ICAO Chapter 4 Annex 16.

Ultimately, the AN-124-111VD lifetime will be expanded up to 60,000 flying hours and 12,000 typical flights, giving it a service life of up to 50 years.

The development work which will be conducted during the modernisation of the first Volga-Dnepr Airlines aircraft will act as the main research and development programme for the eventual launch of production of a new-build AN-124-300 freighter.

Volga-Dnepr Group is investing in the deep modernisation of the AN-124-100 'Ruslan' based on the strategic market requirements for oversize and heavy cargo transportation. In doing so, the Group has also taken into consideration ICAO's future requirements and the necessity to upgrade the operating performance characteristics of the aircraft.

Volga-Dnepr Airlines is the world's largest commercial operator of AN-124-100 freighters with a fleet of 10 aircraft.



Volga-Dnepr Technics signs maintenance services agreement for Sukhoi Superjet-100

SuperJet International (SJI) — a joint venture between Alenia Aeronautica, a Finmeccanica Company, and Sukhoi Holding — and Volga-Dnepr Technics, part of Russia's Volga-Dnepr Group, have signed a Letter of Intent for the provision of maintenance services for the Sukhoi Superjet100 (SSJ100) aircraft.



The agreement was signed during the International Aviation and Space Salon MAKS 2011 in Zhukovsky, Moscow Region. This Lol confirms the partnership established between SJI and Volga-Dnepr Technics that with its certified aircraft maintenance, repair and overhaul (MRO) facility at Ulyanovsk Vostochny airport has joined the SJI's MRO network of Authorized Service Centers to provide maintenance services to SSJ100 Operators. In Ulyanovsk, Volga-Dnepr Technics is establishing a state-of-the-art multi-functional MRO facility to meet current international operating standards also benefiting from its location within a Special Economic Port Zone.



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