

**ST. PETERSBURG INTERNATIONAL ECONOMIC FORUM
JUNE 20–22, 2013**

**Russia's New Horizons
AVIATION IN RUSSIA: BRINGING ECONOMIES OF SCALE TO THE NEXT
STAGE IN DEVELOPMENT
Panel**

**JUNE 21, 2013
11:45–13:00, Pavilion 5, Conference Hall 5.2**

**St. Petersburg, Russia
2013**

Moderator:

Alexei Pivovarov, Anchor, NTV Broadcasting Company

Panellists:

Andrei Elinson, Deputy Chief Executive Officer, Basic Element; Chairman of the Board, Basel Aero

Sergey Kravchenko, Regional President in Russia and CIS, Boeing Company

Michael McAdoo, Vice President for Strategy and International Business Development, Bombardier Aerospace Inc

Valery Okulov, Deputy Minister of Ministry of Transport of the Russian Federation

Yury Slyusar, Deputy Minister of Industry and Trade of the Russian Federation

Yury Spektorov, Partner, Bain & Company CIS

Front row participant:

Vladimir Kulchitsky, President, Progresstech

A. Pivovarov:

The main problem of course relates to the Moscow aviation hub, which is the most congested in Russia. I suggest that we begin our discussion with this and address the first question to the Deputy Minister of Transport. We hear a lot about the need for things to change because the capital's aviation hub is at maximum capacity and neither a third runway at Sheremetevo Airport, nor a new terminal at Domodedovo Airport will solve the problem. What steps does the Ministry of Transport intend to take and how do you see this situation in general?

V. Okulov:

Thank you, Alexei.

For any air transport zone or hub, there is of course a physical limit: the capacity of the air space above the respective area. This can be expressed in the quantity of arrivals and departures or the number of flights that the zone can accommodate. I shall not go into detail, but I will just say that, with today's technical capabilities, the capacity corresponds to 170-180 million passengers a year. We have not yet reached this limit.

Transportation through the Moscow aviation hub is currently restricted by the state of infrastructure on the ground. This concerns the runways at Sheremetevo, which are too close together – really, they are one runway – and the need to reconstruct the runways and increase terminal capacity at Domodedovo and so on. But should we consider this concentration of air transport as a major problem? Our airlines have truly made Moscow a powerful and competitive transport hub, on a par with both Frankfurt and Paris in respect of transported volumes, geography, and frequency of flights. This is really a success story for our aviation industry.

The logic of the aviation industry demands constant market testing: not of routes, but of the market. For example, we fly passengers from St. Petersburg to Astrakhan via Moscow. During the May holidays, there is significant passenger traffic on this route and it makes sense to add a direct flight. It is essential to identify the times when there is greater passenger traffic and, if it is sufficient for a direct flight, to

organize the flight. This is relevant for all destinations. Whoever flies the route first will get these passengers. The main thing is not to misjudge things by organizing a flight for which there is no demand.

The Moscow hub allows for the constant tracking of volumes and the elasticity of demand and its time-dependent variation. Based on this information, decisions are made for the opening of direct flights. Today there are direct flights from Ekaterinburg and Perm to Frankfurt and Antalya because there is demand. When demand appears, direct flights will begin from Nizhnevartovsk and Barnaul. They will definitely be brought in, as our growth rates are the highest in the world: 17% last year and 16.2% over the first five months of this year. Behind us is China, at 9.8%. The global growth rate is 5.3%.

Growth has exceeded our most optimistic forecasts and, of course, we are stretched in places. There is a lack of flight personnel, planes, capacity, and airport infrastructure. But that is a separate issue.

A. Pivovarov:

I will come back to you later.

Mr. Okulov and I agreed that, as a representative of the Ministry of Transport, he would answer any questions and observations at the end of the session, should there be any.

Clearly, direct flights appear where there is demand. It is understandable that Ekaterinburg-Frankfurt or St. Petersburg-Sochi are attractive routes. They are appealing to airlines that can implement direct flights. But, for example, I recently found out that people have to fly from Tomsk to Yakutsk via Moscow. There are many examples like that. In our vast country, there are many routes in which airlines are not interested. The corresponding flights do not break even, at least on an annual basis. If the government is keen for people not to fly via Moscow and interested in the introduction of direct flights and the development of regional aviation, it must play a role in this. This does not just mean supporting airlines and

encouraging them to introduce flights. Tomsk airport is not big and Yakutsk is even smaller. There are issues regarding airport maintenance, air navigation, and so on. I would like to ask Yury Slyusar how the government intends to support airlines that work on a regional level and regional airports? First of all, it would be interesting to hear more about routes that are less profitable than Ekaterinburg-Frankfurt.

Y. Slyusar:

Good afternoon, dear colleagues.

Support for airlines operating regional flights is already being realized. We have resolution 1212, according to which the government will subsidize a significant portion of the cost of the aircraft used for such flights. According to calculations, these government subsidies will be sufficient for the initial investment. It is probably too early to draw conclusions, but it is already clear that this initiative will be fairly successful. The resolution will allow for the subsidized purchase of domestically produced planes: the AH-148 and the SuperJet. Yes, the subsidy is capped, but, all the same, with the realization of this scheme, the Russian aviation industry is getting definite support.

Our plans are being implemented in several areas. First of all, we are making efforts to start producing foreign planes in Russia. In one special economic zone alone, in Ulyanovsk, it is intended that a minimum of two such projects be realized. Firstly, this means the establishment of production of the Canadian Twin Otter, a fairly successful plane, which suits all of our requirements in as much as it was developed in a country with a similar climate. It is true that the cost is high – around USD 6 million. Secondly, it means the assembly of the Evektor plane, developed in the Czech Republic. In our view, the best decision would be to start producing the famous L-410. Russian operators currently purchase between 12 and 15 of these planes through the State Transport Leasing Company (GTLK) every year. If the shareholders and managers of the special economic zone decided to bring their production here, it would give a powerful impetus to all assembly projects. I shall not list the remaining projects of this kind. There are rather a lot of them.

Moreover, this year we are beginning the development of a domestically produced aircraft with a capacity of up to 19-seats. We believe that it is imperative for our country to have its own aircraft of this type; a modern plane with first-class operational attributes. We hope that this plane will be developed by 2017 or 2018. Best of all would be to do this in cooperation with foreign partners, who have experience in the construction of aircraft for the regional aviation industry. Unfortunately, we lack experience in this area.

Finally, we have begun refitting old aircraft with new engines – mainly An-2 planes and Mi-2 helicopters. They are being fitted with American engines. In this way, An-2 planes are being converted from petrol to kerosene. The cost of fuel will fall by 30% and their flight range will increase twofold. The figures are roughly the same for the helicopters. For USD 500,000-900,000 we are getting planes with a working life of ten years, the necessary flight range, and other characteristics desired by operators. Together with the Ministry of Transport, we created an interdepartmental working group, where all of these questions have been actively discussed. We interviewed air transport operators to find out what qualities they wanted and it became clear that there are two key features. Firstly, we need planes with a capacity of up to 19 and not 9 or 35 seats. 19-50 seats is generally a 'dead zone'. Nineteen-seat planes are those most in demand. Secondly, the cheaper, the better, for the reason you have already mentioned. These planes are needed most of all in Siberia and the Far East where, relatively speaking, grandmothers fly to the regional centre to see a dentist. We need to offer the consumer affordable planes. Apart from remotorization, we have no other means to do this. In this case the required level of safety and desired characteristics are met.

In conclusion, I will say that domestic companies are continuing with the mass production of aircraft. We hope that they will do so in the future as well and that new designs will appear. Our main task is to give Russian airlines the opportunity to acquire and operate Russian-made aircraft on acceptable terms. We must always take into account the demands of the market. We cannot sell aircraft that cost far more than the average market price, or even just a little more. Every sector has its

own business model. Average profitability in the air industry is 3-5%. The aircraft we are developing and offering to airlines must be the equal of analogous foreign models in all economic and technical features. That is what we are working towards.

A. Pivovarov:

Could you talk in more detail about this plane? It will appear in 2017? On what basis is it being produced?

Y. Slyusar:

Our colleagues who were present at the last Paris Air Show in Le Bourget will confirm that one of the highlights was the signing by the Rostechnologii corporation of an agreement with the Canadian-Austrian company Diamond for the production of its light aircraft in Russia and the subsequent development of a whole series of planes, including 19-seat aircraft. So far, the project is being realized without government support, but we will create comfortable conditions for its realization. That is all we can do.

This year we will announce a competition in which all producers may participate. The project must correspond to the technical objective formulated by our working group. The winner of the competition will receive government support of RUB 1.5 billion for a period of three years. Luckily, not so much money is needed in the regional aviation sector as in the long-haul sector. We should get a new plane in 2017-2018, created from modern materials and with a modern engine and avionics. It will have features that planes currently in operation, manufactured 20, 30, 40 or 60 years ago, do not have. We do not have any new aircraft, excluding the Czech Evektor and the French Skylander, which have not even completed certificatory flights yet. We must develop such planes. Our country really needs it.

A. Pivovarov:

It turns out that the An-2 is a plane with a long life span. It will, apparently, last for 100 years. You just need to change the engine to prolong its working life.

Let us continue our discussion of regional aviation. It would be interesting to hear the opinion of experts regarding the status of regional aviation in Russia today. Where are its weak points and how can we ensure its development? I would like to ask Yury Spektorov to discuss this.

Y. Spektorov:

For me, Russian commercial aviation includes two different sectors. The first is the one we all know, where Aeroflot and Transaero are represented - successfully operated companies that provide a high level of safety. Over the past ten years they have caught up with, and in many cases overtaken, their European competitors in terms of the level of safety and service, which is very pleasing. Of course, these companies have their own problems, which we will talk about today, but they are nothing compared to the problems we see in Russian regional aviation.

I would like to draw your attention to several facts relating to the regional air industry. Today, our regional airlines carry only 5% of passengers. The average age of the planes is 33 years. Out of 150 planes, 80 are Soviet-era and have been out of production for 20 years. A further 10% are outdated foreign models. The breakdown rate is 15 times higher than in the large Russian companies, which is constantly leading to fatal accidents.

The situation with regards to helicopter flight safety is even worse. Since the beginning of the year, there have been six accidents involving Mi-8 helicopters, in which more than 20 people have died. The most able Russian pilots retrain to fly Airbuses and Boeings, in order to earn between USD 10,000 and 15,000 a month, and the demand for these pilots is great. The majority of regional companies barely make ends meet and, more often than not, exist only thanks to the support of regional authorities. Today, Russian regional aviation is one of the most depressed branches of our economy.

What can be done? Everyone probably agrees that we cannot simply take it and liquidate it. The result would be that some towns would be left without ordinary access to the outside world. We should not consider the situation in Russia to be

absolutely unique. Across the entire world, there is no unified opinion on how best to develop regional aviation. There are places to which it is impossible or very complicated to travel without a plane. Alaska in the USA, many islands in Southern Europe, towns in the Arctic circle in Scandinavia, to name a few. As you can appreciate, it is impossible to conduct flights to these places on a purely commercial basis.

Why then do planes fly in these countries without crashing? One of the main reasons is that, in both the European Union and the United States, regional aviation is supported. This relates not only to links with remote areas, but also cases where it is necessary to stimulate the economic development of specific regions or towns. For example, in France, the government subsidizes flights from Corsica to Marseille, as well as flights between Limoges and Paris and Le Havre and Lyon. In terms of distance, this corresponds to our routes between Ryazan and Moscow or Irkutsk and Krasnoyarsk.

I would immediately like to point out that this support does not come at a ridiculous price: it is not billions of dollars. For example, the USA spends only USD 240 million a year on flights between 163 cities, whilst Norway spends USD 23 million on flights between 40 cities. Even if, to begin with, our system is two times less effective than western ones, this is a burden that the Russian state budget can accommodate. A programme of support for regional aviation exists in Russia: the question is, why doesn't it always work? It seems to me that the reason is bound up in the fact that, in the West, support is given to airlines, whereas help here is mainly given to passengers. Perhaps this is correct from a social perspective, but support programmes for passengers do not work.

From the floor:

Where in the West are airlines supported?

Y. Spektorov:

In America, flights to Alaska are subsidized, and there are schemes in Scandinavia and in France. It is a long list.

From the floor:

It seems to me that support for airlines is not a mass phenomenon. Passengers really are supported.

Y. Spektorov:

I gave examples of support for airlines. From our perspective, if airlines do not receive support, they will simply stop providing flights on routes that are essential to our government. The government must identify key routes that are important in providing links between the regions of the country, for economic development and the mobility of the population. The quantity of routes should be made clear: there could be 100 or fewer. The government should hold tenders for companies, guarantee them a 5% return on transportation and then they will conduct flights.

At the same time, the government must provide subsidies for the purchase of new aeroplanes. Today we do not have modern equivalents of the An-24, the Yak-40, or the An-28. We only know that they are being developed. It is fantastic that such developments are taking place and it is good that the aeroplanes will be produced. We need three or four regional planes of different capacities, which will fall under the auspices of the subsidy programme. If they are domestically produced planes, excellent. But the main thing is to unify the regional fleet. Thanks to that, we would be able to lower the costs of aviation companies, create unified service centres, train qualified engineers, and raise safety levels. Only then will people be able to fly on regional airlines without fear, without worrying what will happen on the next flight. Thank you.

A. Pivovarov:

Mr. Okulov, you touched on a few problems that the government needs to solve. I will come back to you at the end of the session because there will probably be

suggestions and requests. We have two government representatives in the hall. Yuri, it would be good if you would also like to add something at the end.

As we have touched upon regional aviation, it would be interesting to hear the views of representatives of the aircraft construction industry. My question is for you, Michael: how interesting is the Russian market for Bombardier? How would you rate the level of competition there and do you intend to enter into this competition?

M. McAdoo:

I will speak in English. Thank you very much for the question. I would not be here if we did not think that the market was interesting. We look around the world and we publish a twenty-year market forecast every year, as do our colleagues from Boeing and the other manufacturers.

We observe a significant demand for aircraft in our segments. In our case, we look at the market from 20 seats – only a little larger than the aircraft that my friend Yuri was speaking about a moment ago – up to 149 seats, which is just in the very bottom range of the market where our friends at Boeing and Airbus compete very aggressively. It is an interesting market. Depending on how you look at it, over what period of time, estimates range from around 400 aircraft to 650 aircraft to be delivered in 20 years. However, because of the conditions peculiar to Russia, the conditions we spoke about before, there are actually a large number of older aircraft that need to be replaced sooner. That demand therefore is rather front-end loaded, which is very interesting from a marketplace perspective.

From the audience:

Do you see any kind of competition? Perhaps strong competition from Russian-built planes? From new ones, such as the Superjet?

M. McAdoo:

Sure. Speaking about the commercial aircraft segment, when you look at that industry, yes. If you look back fifteen years, to about the mid-1990s, there were

actually many players in the segment. There were ourselves, there was Embraer in Brazil, and also Dornier, in Germany, building regional aircraft. There was Fokker in Holland; Saab in the aircraft business in Sweden; there was British Aerospace. There were five very strong competitors. By the time we got to the early 2000s, three of those had exited. Either they had exited civilian passenger aircraft, which was the case with British Aerospace and Saab, or, in the case of Fokker in Holland and Dornier in Germany, they stopped producing aircraft altogether due to insolvency issues.

Flash-forward to today, and we have the Sukhoi Superjet. It has entered into service and actually had its first international delivery at the Paris air show this week, to a Mexican customer, Interjet. We now also have a Chinese regional jet, called the ARJ21. It is not yet in service, but it is flying. There is Mitsubishi, in Japan. They have launched a new regional jet with the very latest in aircraft technology. Some of it is the same technology that we are using on some of our new aircraft.

Our market around the world is very hotly contested. What we have done, as a company, is that we have looked at the Russian industry and observed a real complementarity between our product line and what we see coming from the United Aircraft Corporation, above where our new C-Series aircraft places. The C-Series ranges from about 100 seats to 150 seats in the segment.

Above that you have the MS-21 from Irkut. We are actually an industrial partner on that programme. We are building the engine nacelles for that programme in our United Kingdom facility. We are the sole source and supplier for that particular component and are working on a daily basis to help that programme succeed.

In addition to our regional jets, we also have the Q400 turboprop aircraft in the below-100-seats segment, about the same size as the Sukhoi, in addition to our regional jets. We spoke before about some of these not-so-enticing routes when you have a small turboprop. This airplane has about 70 to 78 seats normally, but has a much larger range than others. Maybe that could be something that is juicy for this type of aircraft, but would not work for a larger aircraft from Boeing or Airbus, or for an MS-21.

There is a certain complementarity, we believe, between our products and what the Russian industry is offering. I can assure you that there is no market in the world where only aircraft produced in a particular country are flown in that particular country. It does not happen in the United States. It does not happen in the European Union. It does not happen in Canada. Air Canada has over 70 Brazilian aircraft, as well as aircraft from us. It does not even happen in Brazil.

If you look in the segments where there is competition, even if you take the most ambitious plans for the Russian industry, we do not think that it is enough to satisfy the total demand. We think that there is actually space in the market for all the major players in all the key segments.

A. Pivovarov:

Thank you very much.

Regional aviation includes not only the aeroplanes, about which we have already spoken, but also surface infrastructure. We all know the state of small, commercially unattractive Russian airports. In recent years, the private sector has shown interest in investing in this sector. Why has this interest arisen and what plans are there? My question is for Andrei Elinson.

A. Elinson:

Before focusing on regional airports, I would like to say a few words about regional aviation as a whole. We have experience managing a regional aviation company that, unfortunately, for a number of reasons, was forced to cease operations. To a large extent, this was the result of the problems discussed by previous speakers and of the new demands on regional airlines. As external observers, we have seen in recent years the systematic destruction of regional aviation.

Perhaps, in its current form, it does not meet the modern demands and development strategies of the aviation industry as a whole. But even so, every few months one aviation company or another disappears from the market and new players are not appearing in the sector. I would be interested in hearing what our

colleagues from the Ministry have to say about development strategies for regional aviation. Of course, there are support programmes for regional aviation, but this has not reached us, for example. It would be good to take a look at this.

A. Pivovarov:

It seems to me, Mr. Okulov, that we will have to add a whole hour to the end of the session.

A. Elinson:

In 2013, if I am not mistaken, RUB 1.5 billion has been allocated to the support of regional aviation and the demands made on participants of the programme are very serious. As far as we know, the money allocated in last year's programme was not fully drawn down. In any case, the money did not reach us, a regional aviation market player. Why? This question is not so much for the federal authorities as it is for the regional authorities.

Across the whole world, regional authorities are tasked with the development of regional aviation. We work across the whole country and we see how the regions deal with this problem. Some regions – for example, the Volga Region – are trying to encourage development, but this is rare. In the majority of cases, regional authorities prefer to talk along these lines: it's Moscow's problem, let them sort it out, they have the resources; when they provide us with the funds, we will allocate the resources. As a matter of fact, we now have an oligopoly: four airlines remain and the rest are disappearing as a result of the systematic policies of the government.

I will move on to the airports. I think that everyone who follows events in this sector will have noticed the growing interest in airport infrastructure. There are several reasons for this. Firstly, the Moscow aviation hub, one of the largest in the world, is experiencing certain difficulties. Flights from Irkutsk to Krasnoyarsk or from Tomsk to Yakutsk via Moscow are not the best option. There is demand for the development of regional hubs. We must be clear that a regional hub would not be a

replacement for the Moscow aviation hub. Airlines will not make Ekaterinburg, Krasnodar, or Novosibirsk their main transit point. But there is demand for such hubs. There is a support programme for the development of airports but, judging by the speed of the transformation of regional airports, this programme does not meet the existing demand or investment potential. Regional airports – for example, in Irkutsk – are in a terrible state, but the regions are not prepared to give them over to professional operators, either foreign or Russian. The regional authorities are sitting on their box of treasures: they know that the airports are highly valuable, but they do not understand what this value is for.

Across the whole world, concessions are agreed in these situations and airports are privatized. We see that in the regions where private investors are offering to become professional operators, such processes are underway: in Sochi, in preparation for the Olympics, we have built, in my view, a wonderful airport complex, as well as new airports in Novosibirsk and Ekaterinburg. I believe that the process of handing over management of regional airports to private operators is going very slowly.

Not long ago, I learned of the announcement of a development programme for rail transport. As far as I understand, the construction of an express line has been planned between Moscow and Kazan. The cost of this is RUB 1 trillion, or about USD 30 billion. The construction of a regional airport, together with infrastructure, would cost USD 50-200 million. For 200 million it would be possible to build a full terminal complex with facilities over an area of 30,000 square metres. With USD 30 billion we could build 50-60 airports from scratch, and with the remaining half of this sum we could create a dozen standard, regional airlines subsidized by the government, whose planes would fly across Russia – between Yakutsk and Tomsk, Gelendzhik and Mineralnye Vody and so on. This begs the question, are we developing our transport system in the right way? But I will stop there. I could really talk about this topic for a long time.

Thank you.

A. Pivovarov:

I would agree with that. Thank you, Andrei.

Before we began our panel discussion, Alexey Isaikin also said to me that we have big problems with our airports. Alexey founded an airline from scratch, which is, as we all know, very profitable. So his opinion is especially interesting.

What is the main problem? Airports, infrastructure, or governmental participation? You founded a successful cargo airline: would it be possible to repeat this success in passenger air travel?

A. Isaikin:

All success is transient. I feel obliged to state – and I think my colleagues will confirm this – that the global cargo aviation industry is suffering from a difficult period after almost a quarter of a century of growth, the rate of which was higher than in passenger aviation. In the past two years, the trend has changed and passenger aviation is growing more quickly. Cargo aviation companies need to survive this and demonstrate an ability to develop during a period of rapidly falling demand.

I will say a few words about infrastructure. For our successes we are primarily indebted to the unique domestically produced An-124 aeroplane, which caters to 95% of all shipments for our foreign clients, including Bombardier, Boeing, Airbus, and Embraer. The An-124 flies to more than 1000 airports across the whole world. At air shows, representatives of airports from Canada, the USA, and the Middle East queue up with offers to create the conditions for us to provide them with at least a few flights a year.

With the help of Boeing, we began to complete regular shipments with unique planes – the Boeing 747 cargo aircraft – linking Chinese businesses with European and American markets. As 80% of our routes fly over Russian territory, we have become familiar with our domestic aviation industry. What have we discovered? Mr. Okulov mentioned that we have created a rapidly growing hub in Moscow and we can only be happy about this. But I would like to draw your attention to the fact that

the combined revenue of the three main airports in the Moscow aviation hub is around USD 1 billion, which is less than a second-tier European regional hub. For the sake of comparison, this figure is USD 3.5 billion for Frankfurt and almost USD 4 billion for Heathrow. I am talking about the combined revenue of passenger and cargo transport.

But the main thing is that these hubs are convenient for both passengers and cargo transporters. In Moscow's case, Sheremetevo can accommodate no more than five Boeing 747s at one time and Domodedovo and Vnukovo no more than two. In contrast, Shanghai and Frankfurt have room for dozens of such planes.

A. Pivovarov:

Is this limited by our air navigation capacity or the number of stands?

A. Isaikin:

It is limited by infrastructure on the ground, starting with the number of stands. Of course, I must mention our pride and joy, our customs service, which destroys all of the advantages of quick logistics. We can convey valuable cargo, which our clients are impatiently awaiting, in no more than a few hours, but then they are processed for days on end at the customs office.

When Herman Gref was Minister of Economic Development, there was discussion of the creation of a system of global hubs. Russia needs a minimum of four global hubs. If we expand by USD 3 billion, we will get USD 12 billion back. Ideally we would need a dozen such hubs, intended not so much for internal use as for transit. This is an entire industry, comparable to our raw materials industry. We are talking here about creating an industry out of thin air with a yearly turnover of 50 billion.

Why am I talking about global hubs? On 747s, we deliver hundreds of thousands of tonnes of cargo for consumers in Russia and we need to transport these further. We come up against problems such as the shocking condition of regional airports. This costs us very dearly. This year, we were obliged to declare Russian airports as high-risk, like African airports, for example. Their infrastructure is completely out-

dated. They were built in the last century and correspond to Soviet standards. The staff are poorly trained and incapable of operating modern technology. The equipment is poor. Last year we lost four engines at Sheremetevo. They did not clear the runway properly for safe taxiing. This year we have lost engines at one of the Siberian airports. I will not say which, so as not to offend the regional authorities. We now have to dispatch whole teams to assure ourselves that we can land our planes. It is impossible to work like this!

First of all, we need three or four hubs on a par with Frankfurt, in the European and Far Eastern regions of Russia, as well as regional hubs to which we can transport both cargo and passengers. It is no secret that half of shipped cargo is transported in passenger aircraft together with the baggage, and passenger airlines also require normal infrastructure to process cargo. Thanks to the regional hubs, a whole network of local airlines could be developed as it would be possible to deliver goods in small planes from these hubs. What do we have? The Boeing 747 – 120-140 tonnes – and the Boeing 737 – around 30 tonnes. This is too much for local airlines. We need roughly the same kind of aeroplanes that Bombardier is producing.

A. Pivovarov:

Excuse me, Alexey. You have one minute left, if you could conclude. Is that OK?

A. Isaikin:

We need a strategy for the development of infrastructure on the ground and of an air fleet at the same time. I think that Mr. Okulov will answer the questions I have posed.

A. Pivovarov:

Mr. Okulov cannot answer for the actions of Russia as a whole. If we broaden our topic, then we are also held back by the quality of the roads that lead out of airports and so on.

Sergey, you represent a global company. The budget of Boeing is larger than the budget of some states. How convenient is it for you to work in Russia? What is lacking, in terms of the actions of the Russian government? In general, how would you assess the growth prospects in this market, taking into account the not altogether happy picture which has been drawn here by our speakers?

S. Kravchenko:

Well, I am Russian. I grew up and live in Russia.

A. Pivovarov:

It is precisely for this reason that your opinion is so interesting.

S. Kravchenko:

If you will allow me, I would like to speak not as a representative of a global company, but as an expert. I think the analogy between air transport and the circulatory system is very apt. Air transport is the circulatory system of the Russian economy and its condition depends on several factors, which have already been discussed. Mr. Okulov said that the Russian market is one of the fastest growing markets and we should be proud of that. Yury talked about subsidies. Subsidies can be given to aviation companies – for example, Aeroflot, if it transports passengers to the Far East – or to passengers using regional airlines. There is a market and it is growing.

Furthermore, there are aeroplanes, which the Deputy Minister of Industry and Trade talked about. This problem in Russia is also resolved thanks to regulation and the creation of private companies that compete with one another. Leasing companies are appearing. We have with us today Alexander Rubtsov, who established a leasing company on a global scale. There is competition and that means that problems with the supply of aeroplanes will be solved. Yes, there are problems with production. But, at the end of the day, the passenger does not care what vehicle he is being transported in – whether it is an SSG, an MS21, or a Diamond of Russian

or foreign assemblage. The Russian government – despite the fact that it really wants to restore the Russian aviation industry and must do so – understands this and is opening its doors to western producers. Our leasing companies and aviation companies are working on a global level and are solving the problems we have with aeroplanes.

I am optimistic about the prospects for the Russian market. The Russian market will constitute 1,100 planes in the next 20 years. If we manage to operate these properly, this market will be enough for Boeing, Airbus, and Russian-assembled Diamond and, of course, for SSJ and Antonov planes.

Therefore, it seems to me that our circulatory system is not threatened with thrombosis because of a lack of planes or demand. What is threatening it? Coronary heart disease. If you do not eat right and lead an unhealthy lifestyle, plaque appears in your blood vessels. They clog up the arteries and this can be fatal. This plaque can be cleared up by surgery to expand the arteries.

We have three such kinds of plaque. You probably know about two of these already. Andrei and I are very good friends, but we have not seen each other in a long time. He asked me: what will the tone of your presentation be, optimistic or pessimistic? I thought that my presentation would be 80% optimism and 20% perplexity, turning into pain.

So, the first problem is airports. The market heavyweights have been engaged in the construction of airports, first in St. Petersburg and Moscow, then in Samara and Ekaterinburg, and now already across the whole country. Who is active in this field? The incumbent players: Kamenshik, Vantsev, everyone has heard of them. Deripaska has entered the field. He is also a big player. Vekselberg and Usmanov are seriously involved in this. These people understand what a market economy is, they have resources, and they will solve the problems with airports. They may invite specialists from Singapore or somewhere else, but they will solve the problems.

Mr. Okulov has been dealing with the second problem, it seems, for the past five years, and he will definitely solve it. Let us hope he stays in government. This problem is the training of pilots. This will be resolved with the help of market

resources. It is not important whether we get back Russian pilots who fly with Embraer, buy all of the pilots who fly in Latin America or train new ones. We have with us today generals who represent Transas. With our help they will found excellent flight schools. Mr. Okulov is spending vast sums on this and the problem will be resolved.

Finally, I come to the perplexity and pain. This is the last and most serious problem. It relates to the transport capacity of our large airports. We have two main bottlenecks: in Moscow and Sochi. However much we love regional aviation, however much we have established its importance for the country's economy, if we do not eliminate these two chokepoints, we will not be able to ensure healthy circulation. But the main thing is that we risk ruining the Olympics, the celebration of the 70th anniversary of our nation's great victory and the World Cup...

A. Pivovarov:

Such apocalyptic tones are unnecessary.

S. Kravchenko:

This is my pain and my perplexity. Why is this problem not being solved? I do not know. Mr. Okulov really does want to solve it, Levitin wanted to solve it and Sokolov is talking about it all the time. But, as the saying goes, someone has to make the first move.

In the meantime, this problem can be solved very quickly. There are huge reserves in the form of satellite navigation. We have an archaic system of air traffic control and we worry about this every year at the St. Petersburg International Economic Forum. We can, of course, set our hopes on the manager of Rosaviatsia personally sitting in the tower in Sochi. But even if Mr. Okulov himself sits in the tower, only a relatively large number of guests need to arrive before we come up against serious risks.

This problem was solved in China before the Olympics and in Johannesburg before the football World Cup, which we also have to host. The market will not help with

this. In all countries, this is an area that operates under strict regulation. The government must make a decision and the people who answer for the execution of these decisions will implement new, modern navigation methods. These methods can be implemented very quickly. In Johannesburg and in Beijing they were introduced and in turn relieved the bottlenecks.

We have analyzed the situation at Vnukovo Airport. Forty to forty two planes land and take off there every hour. After transitioning to the new regulations and to satellite navigation, we will be able to increase this number to 100. What is happening at Sheremetevo? At Sheremetevo there are two runways that are very close together. There used to be exactly the same situation in Seattle. There are 2 million people living in Seattle and in Moscow there are slightly more. These two runways used to accommodate 38 takeoffs and landings, and after the transition to satellite navigation, they accommodate 78. In addition, a third runway was constructed in Seattle, which makes 100 takeoffs and landings possible. It is possible to do this at Sheremetevo as well.

We have the reserves. The question lies elsewhere: who is going to make the first move?

A. Pivovarov:

Sergey, thank you very much.

Andrei, if you wouldn't mind, very briefly. If I understood correctly, you know precisely who will bite first.

A. Elinson:

I will give you an example, seeing as my colleague Sergey mentioned it. I travel to Sochi twice a week because we have a lot of work there surrounding the Olympic programme. A colleague who was setting out to meet me in Sochi last week could not fly from Moscow to Sochi for two whole days. There were simply no tickets. On the third day he flew with Aeroflot in economy class for RUB 78,000.

A. Pivovarov:

If Neradko himself had come and personally sat in the tower, he would have flown out even later.

A. Elinson:

A route for which there is real demand is operated by a small number of large airlines. When asked to make flights more frequent, they answer that the technical capacity does not exist. It is summer, it is the peak season, and we are earning money. We have seven degrees of freedom in an open sky. This problem has not been touched upon, although it is extremely important.

A. Pivovarov:

That is a topic for another session.

A. Elinson:

We have not yet moved from standstill. We have with us today a representative of the respected company Volga-Dnepr. On the international market, our businessmen are competitive. Why then are they afraid of competition with domestic airlines?

A. Pivovarov:

I am looking at the clock and I would like for us to hear at least a few answers.

I know that Mr. Slyusar will have to leave soon. Do you have anything to say before I give the floor to Mr. Okulov?

Y. Slyusar:

If there are any questions, I will be happy to answer them.

A. Pivovarov:

There have been many questions.

Let us then give the floor straight away to Mr. Okulov. Mr. Okulov, we understand that you cannot answer for the activity of Russia as a whole. Please answer the questions that you feel you are able to answer.

V. Okulov:

We will answer all the questions.

On the subject of regional companies, it is true that their development is seriously lagging behind that of the national airlines. Five years ago, 30% of the fleet of those same national companies was made up of modern western aeroplanes, with which they completed 80% of their work. Then there was a sudden expansion and renewal of the fleet. Today, modern planes make up 90%. Regional companies are following exactly the same path, but are lagging behind by a minimum of five years. Yes, they are more conservative and there are certain problems with management. But the transfer to fuel-efficient aeroplanes and the introduction of modern control technologies are unavoidable.

It goes without saying that subsidies are attracting great interest. Should we be subsidizing the passenger, the route or the airline? We should say straight away that under no circumstances will it be the airline. Air transport is the most competitive business in the world. Our airlines are competing successfully on the global market. We need to subsidize passengers on a social basis, passengers and representatives of certain sectors of the population. This is what we are doing. Passengers younger than 23, which means mainly students, and pensioners – people with low incomes – are subsidized to travel on routes to the Far East. Flights to Kaliningrad are also subsidized. This is actually extended to all citizens, in order to bind this enclave more strongly to the rest of Russia.

So, we subsidize passengers on those routes where it is only possible to travel by plane and routes with low passenger traffic. This year, subsidies amount to just over RUB 3 billion. That is less than in the United States, but our quantity of flights is much lower. The programme that we are launching at the end of July provides for the subsidy of routes and not airlines.

A. Pivovarov:

By the way, in Alaska airlines are not subsidized, only the routes.

V. Okulov:

Nobody subsidizes airlines. That is bad practice. If you pour any sum of money into an airline, there is no guarantee that it will offer a lower tariff. The next avenue for subsidies is helping airlines to acquire planes on lease. That is the most difficult thing. Leasing companies and banks will provide 85% of the credit, but they need to come up with 15% themselves. Airlines do not have this money, therefore that 15%, and even more, will be provided by the government. We will also subsidize regional planes with a capacity of up to 50 seats, but now, at the request of the Ministry of Industry and of Mr. Slyusar personally, we are raising the ceiling on this so that the SSJ and the An-148 fall under this programme.

Now I will say something about aeroplane construction. Globally, there is a clear duopoly: Boeing and Airbus. The cost of fuel is prompting aviation companies to the hasty renovation of their fleets, which is leading to an increase in orders. It is a seller's market, not a buyer's. Orders for aeroplanes – both narrow-bodied and wide-bodied, both short- and long-distance – need to be arranged at least a few years in advance. The picture is the same with respect to planes with turbo-prop engines: Avions de Transport Regional (ATR) has developed its portfolio three years in advance.

This creates fantastic opportunities for our aviation construction industry. All airlines need to see the entry of a new market player with competitive products as soon as possible. Only the appearance of a new player will destroy this duopoly. We must take advantage of the demand for fleet renewal, which exists across the whole world and is, moreover, constantly growing.

On support for regional airports, we provide this through the creation of federal state enterprises. Today, 60 airports in the Far East and the North are already state enterprises and are maintained at the expense of the federal budget. This

mechanism is not effective: funds are distributed, but, at the same time, we forcibly need to bring in technologies that do not require a large number of personnel. At the moment, the number of personnel at these airports is unjustifiably high. Commercial revenue is barely enough to pay employees' salaries, let alone for the development of the airport.

What can we do about this? Local airports fall under category five in terms of aviation safety and transport safety. Less strict demands will be applied to them, in terms of video surveillance, screening, and so on. Modern technologies are being introduced for the operation of navigation equipment and weather support, which do not require technical personnel. And so, at a regulatory level, there will be reduced demands on local airlines and, at a technical level, we will see the introduction of technologies that reduce staff numbers.

With regard to the construction of four hubs, these will come about naturally. These cannot be created by directives and such regional hubs have already been formed naturally, such as Koltsovo, Tolmachevo, and Emelyanovo. In addition, hubs in Khabarovsk and Vladivostok, and of course in St. Petersburg, are being constructed. These are not fully-fledged hubs: we have only 74 million passengers across the whole country. Atlanta Airport, Chicago O'Hare, and even some airlines serve far more passengers. But these potential hubs that I mentioned are growing at high speeds.

The claims made regarding fitting out airports with technology are incorrect. The government is not dealing with this and God forbid the government should occupy itself with these problems. There is no need to allow the government into this business. It is not necessary that they regulate this business. Matters concerning the capacity and area of terminals and technology for the operation of planes and terminals are business issues, colleagues. Develop this business. We will definitely not subsidize it.

We have built and will build runways, steering taxiways, and platforms. But here we must use private-state partnerships. These are already being used. We are bringing these in step by step, starting with platforms. Private investors are being attracted

for the construction of platforms, with a subsequent growth in resources thanks to the use of these platforms. We are applying such a scheme now in the Moscow airports and will introduce it in other places.

A. Pivovarov:

Apologies, but I must ask you to speed up a little bit. If you could say a few words about satellite navigation: that is of most interest.

V. Okulov:

The future lies in satellite navigation systems, in automatic dependent surveillance-broadcast (ADS-B), which is produced using satellite links. These technologies are much cheaper, more effective, and more reliable than those that exist today. They would allow flight crew to receive much more data. The crew would receive full information about the air conditions, independently of any information arriving from the ground. Information about the air conditions would be arriving from all sides.

A. Pivovarov:

I must ask you to speed up.

V. Okulov:

The future lies with these technologies. Unfortunately, as of yet there are no recommendations for the introduction of ADS-B, even at the international level. The International Civil Aviation Organization (ICAO) has not yet prepared these. At the same time, Russian developments in the sphere of satellite navigation and automatic dependent surveillance-broadcast are among the most impressive. We are promoting these developments so that they become international standards, to be implemented not only in Russia, but in aeroplanes across the world.

A. Pivovarov:

What kind of timeline would you give for their introduction? Obviously we will not manage to do this by the upcoming Olympics in Sochi. But by the football World Cup?

V. Okulov:

We do not foresee any problems surrounding the capacity of airports during the Olympic Games, the football World Cup or other important events. There are problems with the working order, connected partly with the long-drawn-out construction of the new Moscow air traffic control centre. This protracted construction process is probably our main technical problem, if we are talking about air traffic control.

S. Kravchenko:

Mr. Okulov, have I understood correctly that there are now no obstacles to the growth of airlines? That the Moscow aviation hub does not have serious problems? Aeroflot and other leading aviation companies have bought a lot of aviation technologies and they will definitely not realize them if this bottleneck is not opened up.

V. Okulov:

You should know that we are now introducing new technology. This process will be completed by 2014. As a result, the capacity of the Moscow aviation zone will reach 174 million passengers.

A. Pivovarov:

We will introduce this technology? And launch it?

V. Okulov:

This technology is completely new. But that is a separate issue. I could talk for a whole hour about this.

A. Elinson:

Mr. Okulov, could we hear your comments on the 'open sky' idea? What would happen if we were to remove the barriers and allow competition in the air transport market?

A. Pivovarov:

Why do we not turn Moscow into Dubai?

V. Okulov:

The Agreed Principles Protocol signed with the European Union in 2006 envisages changing the mechanism for the operation of trans-Siberian routes from January 1, 2014. We froze the activity of this protocol because of the persistent demands of our airlines – all of them, not only Aeroflot – in connection with the introduction by the European Union of trade quotas on greenhouse gas emissions. This is essentially a tax on airlines.

We have good leverage – one could even say a cudgel – in the form of the trans-Siberian routes and we have made use of this.

The European Union suspended the activity of this instrument and we are restarting discussions about the realization of the agreed principles, which envisage the abolition of the existing working order with regard to the trans-Siberian routes from January 1, 2014.

A. Pivovarov:

Thank you very much, Mr. Okulov.

Our time is now up. I would like to thank all of our panelists, especially Mr. Okulov, who answered for the whole of the Russian government. It is rare that anyone is brave enough to do so.