Eurasian Development Bank

Developing EurAsEC's Air Transport Potential

EDB Sector Report no. 13

УДК 656.7
ББК 39.58
Т 44

Developing EurAsEC's Air Transport Potential. – Almaty, 2011. – 44 pages.

ISBN 978–601–7151–23–2

The Eurasian Development Bank (EDB) is an international financial institution established to promote economic growth and integration processes in Eurasia. The Bank was founded by the intergovernmental agreement signed in January 2006 by the Russian Federation and the Republic of Kazakhstan. Tajikistan, Belarus, Armenia and Kyrgyzstan joined the Bank in 2009–2011.

Electric power, transportation infrastructure and high–tech and innovative industries are key areas of the Bank's financial activity. In line with its charter, the Bank views information and research support for integration in Eurasia as a priority of its analytical work.

УДК 656.7

ББК 39.58

The authors:

Alexander Zaboyev
Candidate of Economic Sciences, Head of Division,
Scientific Centre for Complex Transport Problems, a federal state unitary enterprise
at the Ministry of Transport of the Russian Federation
E–mail: alex.zaboev@mail.ru

Aigul Absametova
Candidate of Economic Sciences, MSc, Senior Analyst at the Economic Analysis Unit, EDB
E–mail: absametova_am@eabr.org

Ardak Tashenov
MSc, Deputy Head at the Economic Analysis Unit, EDB
E–mail: tashenov_as@eabr.org

ISBN 978–601–7151–23–2

Coordinator, copyeditor:

Gulnaz Imamniyazova, EDB

Address:

Eurasian Development Bank

220 Dostyk Ave, Almaty 050051
Kazakhstan
Telephone: +7 (727) 244 40 44
Fax: +7 (727) 244 65 70, 291 42 63
E–mail: info@eabr.org
http://www.eabr.org

Design, layout and printing:

RUAN Publishing Company

This sector report is a part of the EDB series on regional integration in industries and sectors of the Bank's member states and other post–Soviet states. The EDB series is edited by Evgeny Vinokurov, Ph.D., Director of the EDB Centre for Integration Studies.

To date, the following sector reports have been published and distributed:

- Nuclear Energy Complexes in Russia and Kazakhstan: Prospects for Development and Cooperation
- Water and Energy Resources in Central Asia: Utilisation and Development Issues
- CIS Common Electric Power Market
- Eurasian Development Bank's Investment Policy and Environment
- EurAsEC's International Transport Corridors
- Effects of Climate Change on Water Resources in Central Asia
- Economic Cooperation in Agricultural Sector of CIS Countries
- Space Industry in CIS Countries: Prospects of Cooperation
- Integration Processes in CIS Telecommunications Sector
- The Stock Markets of Russia and Kazakhstan: Prospects for Integration
- Russian and Kazakhstani Nuclear Energy: Trends in Economic Cooperation
- The Investment Aspect of the Region's Water Sector Development

All publications from this series are available at the EDB's official site:
http://www.eabr.org/eng/publications/AnalyticalReports/

Acknowledgments

The Eurasian Development Bank would like to thank the Interstate Aviation Committee (IAC), EurAsEC's main intergovernmental and international organisation in the area of civil aviation for the statistical information and materials provided for the preparation of this publication.

Contents

Tables

Figures

Abbreviations

ATC – Air traffic control

ATM – Air traffic management

ATS – Air traffic services

CIS – Commonwealth of Independent States

EDB – Eurasian Development Bank

EurAsEC – Eurasian Economic Community

GDP – Gross domestic product

IAC – Interstate Aviation Committee

IATA – International Air Transport Association

ICAO – International Civil Aviation Organisation

MTOW – Maximum takeoff weight

pkm – passenger kilometres

RTK – Revenue tonne kilometres

RVSM – Reduced vertical separation minimums

tkm – tonne kilometres

Main conclusions

1. The creation of the Customs Union, the Common Transport Space and the Common Economic Space within EurAsEC opens up new opportunities for the development of cargo traffic, including transit, within the region and with third countries. Civil aviation is a key element of transport systems of EurAsEC member states. Therefore, the development of air transport potential is an important means of boosting economic integration and attracting transit cargo flows to EurAsEC's Common Transport Space.
2. At present, civil aviation is the most dynamically developing mode of transport in most EurAsEC member states. This progress has been achieved through the harmonisation of aviation standards, rules and procedures, and the consistent implementation of the Agreement on Civil Aviation and Use of Airspace signed in 1991 by all EurAsEC member states. The most dynamic sector is passenger transportation. The number of people transported within EurAsEC increased 2.5 times, while passenger kilometres grew 2.8 times in 2000–2010.
3. EurAsEC's airfreight traffic is developing at a slower pace. Between 2000 and 2010, the freight turnover and traffic increased by 1.8 and 1.7 times respectively. Russia accounts for more than 90% of all air cargo traffic. Despite the significant distances between the states, the potential of civil aviation in this area is not fully exploited. In 2010, air transportation accounted for a mere 0.03% of the total tonnage of freight transported between EurAsEC member states (excluding by pipeline).
4. EurAsEC's airlines play only a small role in Europe–Asia cargo transportation. Only one or two airlines, e.g., Aeroflot and AirBridgeCargo, regularly transport freight on these routes. AirBridgeCargo is the only carrier in EurAsEC that has a sufficiently modern fleet of Boeing–747 freighters to perform cargo operations between Europe and Asia via Moscow. AirBridgeCargo accounts for 42% of all cargo traffic in EurAsEC. The EurAsEC cargo transportation market is significantly smaller than those of many developed and developing countries. For example, in 2010 the Hong Kong airline Cathay Pacific transported twice as much freight as all of EurAsEC's air carriers put together.
5. Foreign airlines are actively expanding their presence in EurAsEC's cargo market. They account for one third of all freight loaded at EurAsEC airports. Transit through the region is constrained by a number of factors, the most significant of which is the condition of ground–based infrastructure.
6. The development of international airfreight traffic and transit in EurAsEC depends directly on the availability and condition of aerodrome infrastructure. Other problems that prevent the full utilisation of EurAsEC's cargo traffic potential include the lack of modern cargo aircraft and government incentives to purchase and overhaul them, as well as the inability of EurAsEC logistics chains to accommodate air cargo traffic. Other obstacles include regulatory barriers, in particular restricted access to the market for airlines from other EurAsEC member states. These regulatory barriers result from the provisions of bilateral intergovernmental air traffic agreements entered into by EurAsEC member states.
7. EurAsEC's integration bodies need to pay much greater attention to the development of scheduled commercial cargo traffic. It is particularly important to begin implementing the Blueprint for the Formation of EurAsEC's Common Transport Space with regard to air cargo transportation and the creation of a common transportation services market. The success of foreign integration associations in this regard suggests that practical steps to advance air transport potential (taking into account the establishment of the Customs Union and the Common Economic Space) should include the expansion of cooperation between EurAsEC member states in the area of civil aviation and the use of airspace, the implementation of joint programmes and the attraction of investments in the air

transport sector. The key elements of this cooperation are described in the document *Main Areas of Developing Civil Aviation and Measures to Improve Flight Safety in the CIS Member States* approved by the CIS Council of Heads of Governments on November 22, 2007. The development of commercial cooperation between EurAsEC's air carriers, in particular via aviation alliances, is also crucial. EurAsEC's efforts to form the Common Transport Space should include, to a more significant extent, the development of air cargo traffic and transit within EurAsEC and with third countries.

Introduction

Civil aviation is a vital component of the transport systems of EurAsEC member states, contributing to their sustainable economic growth, foreign trade, tourism, and population mobility.

In order to develop civil aviation and improve flight safety in CIS member states, the following goals and objectives have been formulated: to promote economically beneficial air traffic and increase it in response to growing demand; and to enhance international traffic by improving CIS countries' competitiveness in the global air transport market.

EurAsEC is committed to the development of civil aviation as a component of its Common Transport Space. The Blueprint for the Formation of EurAsEC's Common Transport Space was approved by the 20th session of the EurAsEC Interstate Council in January 2008.

The priorities identified by the Blueprint are: the formation of a common market in transport services; the improvement of transport infrastructure, passenger and cargo transportation equipment and technology; and the full exploitation of common transit potential. All these priorities apply fully to civil aviation.

EurAsEC's undisputed achievement in the area of civil aviation is the use of harmonised standards, aviation rules and procedures (in particular with respect to airworthiness, operational suitability of airports, airport equipment, air routes and air accident investigations) as a result of their common adherence to the Agreement on Civil Aviation and Use of Airspace, signed by all EurAsEC member states in 1991.

However, integration processes in EurAsEC have not yet had an effect on many aspects of civil aviation, including the development of freight traffic and exploitation of transit potential.

Globally, integration in air transport and the establishment of common markets in air transport services are important processes. International experience shows that mutually beneficial cooperation between governments, air carriers and other suppliers of air transport services develops in a gradual fashion, in full compliance with the policies, standards and recommended practices of the International Civil Aviation Organisation (ICAO). Freight traffic is a key component of integration processes.

This report was prepared with the assistance of the Department for Transport Policy and Market Infrastructure at the Secretariat of the EurAsEC Integration Committee. It describes the current state of EurAsEC's civil aviation and analyses its prospects, paying special attention to airfreight transportation. The publication also discusses opportunities for further cooperation in civil aviation within EurAsEC, taking into account the establishment of the Common Transport Space, the Customs Union and the Common Economic Space. It also examines air traffic between Asia and Europe and possible ways of maximising the potential of Eurasian transit links via the EurAsEC air space.

This report does not review the transit of military cargoes to Afghanistan. All statistical data and estimates provided in this document exclude this aspect. No recommendations contained in this publication apply, directly or indirectly, to the development of military cargo transits to Afghanistan through EurAsEC.

Chapter 1. The importance of Developing Air Transport Potential

In 2010, foreign trade turnover in EurAsEC exceeded $780 billion (4.6 times greater than in 2000). Exports grew 4 times and imports 6.2 times over the same ten-year period. Mutual trade between EurAsEC member states made up $47 billion in 2010, accounting for approximately 10% of their total exports and 16% of imports (EDB, 2011b). Freight traffic between EurAsEC countries by all transport modes, except waterways transport and pipeline, is shown in *Table 1.1*.

Country	Belarus	Kazakhstan	Kyrgyzstan	Russia	Tajikistan	Total export
Belarus		0.2	0.1	6	0.1	6.4
Kazakhstan	0.7		2.4	29.4	1	33.5
Kyrgyzstan	0	0.3		0.2	0.1	0.6
Russia	7.9	6	1.4		1.4	16.7
Tajikistan	0	0.06	0.04	0.2		0.3
Total import	8.6	6.6	3.9	35.8	2.6	57.5

Table 1.1.
Cargo transported between EurAsEC member states by road, rail and air in 2010 (million tonnes)

Source: EDB, 2011b

In addition, 500 million tonnes of freight are transported by pipeline or rail and road transport to seaports for transit to third countries.

Third countries' net transit through EurAsEC in 2010 (by all transport modes, except waterways and pipeline) was estimated at 5 million tonnes. The main routes were between East and Southeast Asia (including China) and Europe, Central Asia (Afghanistan, Turkmenistan, Uzbekistan) and Europe, and the Black Sea countries (Ukraine, Turkey and others) and the Baltic States and Northern Europe (see Table 1.2).

	2000	2005	2010	2015 (forecast)		2020 (forecast)	
				conser-vative	optimistic	conser-vative	optimistic
Within EurAsEC	23.4	45.9	57.6	70	90	80	120
Third countries' transit through EurAsEC	1	2	5	7	10	10	15

Table 1.2.
Forecasted cargo transportation in EurAsEC by road and rail for 2015–2020 (million tonnes)

Source: EDB, 2011b

The share of civil aviation in total freight transportation between EurAsEC countries is insignificant (see Table 1.3). In 2010, air cargo transported between the member states stood at 15,000 tonnes, or 0.03% of the total (excluding goods transported by pipeline).

Country	Belarus	Kazakhstan	Kyrgyzstan	Russia	Tajikistan	Total export
Belarus		n/i	n/i	n/i	n/i	n/i
Kazakhstan	n/i		13	1.458	5	n/i
Kyrgyzstan	n/i	n/i		746	11	n/i
Russia	53	5.388	2.386		653	n/i
Tajikistan	n/i	79	8	1.274		n/i
Total import	n/i	n/i	n/i	n/i	n/i	n/i

Table 1.3.
Scheduled and non-scheduled cargo and mail traffic between EurAsEC member states (tonnes)

Source: Interstate Aviation Committee

Note: n/i – no information

At the same time, cargo transit through EurAsEC (i.e., with a transit stop in its international airports) by national and foreign airlines totalled approximately 400,000 tonnes per year.

According to the Boeing Corporation (Boeing Corporation, 2010), an additional three million tonnes of transit cargoes are transported between Asia and Europe through EurAsEC by traditional passenger airlines (in baggage holds of passenger aircraft), cargo carriers and airmail companies. So, air cargo transit between Europe and Asia through EurAsEC is five to six times higher than container transit along the Trans–Siberian rail corridor.

Air transportation accounts for approximately 3% of tonnage and up to 15% of the value of all cargo traffic between Europe and Asia. For the past 20 years, these figures have been growing and increases in air cargo traffic have been significantly higher than increases in passenger traffic. The undisputable advantages of transporting freight by air between Europe and Asia are its speed (several hours), point–to–point delivery and high quality (accuracy and safety). Significant efforts are being made to shorten on–ground processing, which often accounts for around 90% of delivery time.

Cargoes transported by air are usually the most valuable industrial products. Experts estimate that the average value of a tonne of cargo transported by air is 100 to 150 times higher than that of cargo transported by sea, i.e., as much as $10,000–15,000 per tonne.

As well as being affected by general economic factors, the airfreight transportation market is influenced by the widespread use of safe and fuel–efficient aircraft, as well as changes in international trade patterns (in particular, an increase in the proportion of highly processed products).

Aviation alliances contribute to improving the efficiency of cargo traffic. SkyTeam is an initiative that aims to proactively develop freight transportation. Recently, LufthansaCargo announced its intention to boost cooperation in airfreight transportation with other members of the Star Alliance.

Some airlines also continue to cooperate outside their traditional alliances. According to *Aviatransportnoye Obozreniye* (Flottau, 2011), another significant player may emerge in the cargo sector in a few months if Qatar Airways, which is currently developing its Europe–Asia routes, buys a block of shares from Cargolux. Qatar Airways is reported to be considering the purchase of a 33.7% share in the Luxembourg airline, which is now facing serious financial difficulties.

Freight forwarding operations also influence the development of air cargo traffic. Forwarders' operations are expanding continually and they tend to be global in nature. The world's 15 largest freight forwarders account for 60% of all international cargo tonnage. A total of 40% of international air traffic is between the different divisions of transnational corporations. This fact is a further proof of their influence.

Freight traffic dynamics also depend on ground infrastructure (airports, air traffic services (ATS) and air traffic management (ATM) facilities), the extent of interaction and coordination between transport modes, the type of logistics services available and the efficiency of customs procedures.

In Europe and Asia, the processing of transcontinental cargoes is concentrated at hub airports. The largest hubs are, traditionally, Heathrow (London), Luxembourg, Schiphol (Amsterdam), Hong Kong, Seoul, Haneda and Narita (Tokyo). Shanghai and Beijing, China's largest airports, have significantly increased their cargo traffic in recent years.

Attracting Europe–Asia transit flows to EurAsEC air routes is important for three main reasons:

1. Levying additional air navigation charges for transit flights will help improve ATS and ATM infrastructure in EurAsEC member states;
2. Increasing the number of technical stops at EurAsEC airports will foster the improvement of aerodrome and airport infrastructure, create new jobs and have a multiplier effect on other sectors e.g., fuel supplies and maintenance; and

3. Increasing the number of commercial stops will help advance logistics in Eurasia, improve delivery speed and enhance EurAsEC exporters' access to the largest global markets. The development of air cargo traffic between Europe and Asia with commercial stops in EurAsEC airports will have a significant multiplier effect on transport systems and other sectors.

In the context of globalisation, civil aviation plays an increasingly important role and assures expanding EurAsEC member states' access to global markets. Air transport is particularly important to the resolution of socioeconomic problems and the improvement in people's quality of life, especially in regions without ground transportation systems.

In recent decades, civil aviation's role in the global economy has been increasing steadily. A total of 2.5 billion passengers (approximately 40% of the world's population) and 46 million tonnes of freight and mail are transported by air every year. Commercial flights are serviced by 25,000 aircraft, with a maximum takeoff weight (MTOW) of more than 9,000 tonnes. There are approximately 40,000 civil airports on the globe, including 1,000 international airports.

The aviation industry accounts for approximately 8% (about $3 trillion) of the global gross domestic product (GDP). It also has multiplier effect on other sectors such as tourism, oil processing, maintenance and construction.

The growth of the airfreight transportation market has outpaced increases in global GDP. At present, commercial airlines operate 1,755 freighters, including 63% widebody planes. The Boeing Corporation expects that the cargo fleet will increase by 70% by 2029, to 2,967 aircrafts (Boeing Corporation, 2010).

Over the past 20 years, international cargo traffic has increased 2.5 times to 167 billion revenue tonne kilometres (RTK), 90% of which is provided by scheduled airlines (Boeing Corporation, 2010). According to Boeing forecasts, this figure will triple by 2029, averaging 5.9% of annual growth (see Figure 1.1).

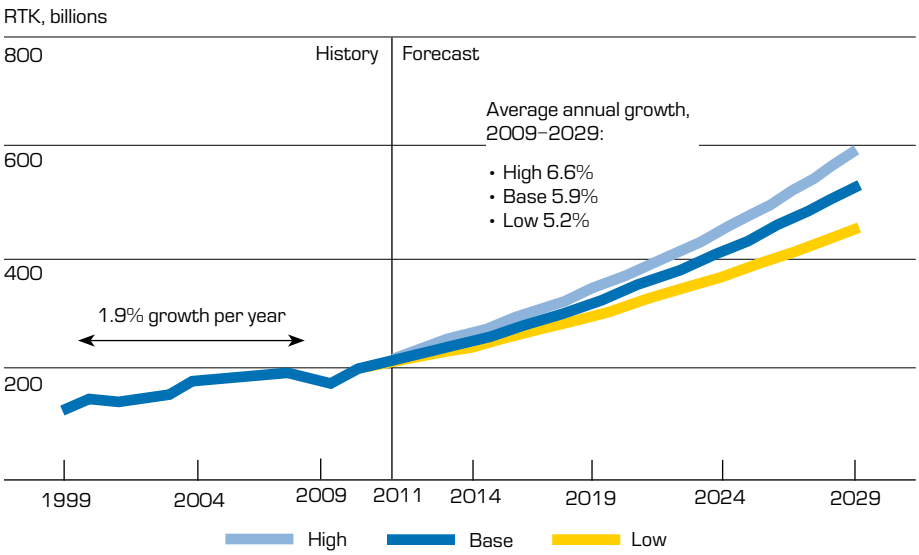


Figure 1.1.
World air cargo traffic forecast for 2011–2029

Source: Boeing Corporation, 2010

Despite the 1997 and 2001 economic recessions and the 2008–2009 global economic crisis, the average growth of cargo air traffic between Europe and Asia made up 9.8% growth a year, totaling 3.2 million tonnes in 2009. In 2010, Europe–Asia traffic was estimated at 3.7 million tonnes (see Figure 1.2).

Europe–Asia flows now account for 19.3% of the world's cargo traffic by commercial civil aviation and 9.2% of transported tonnage.

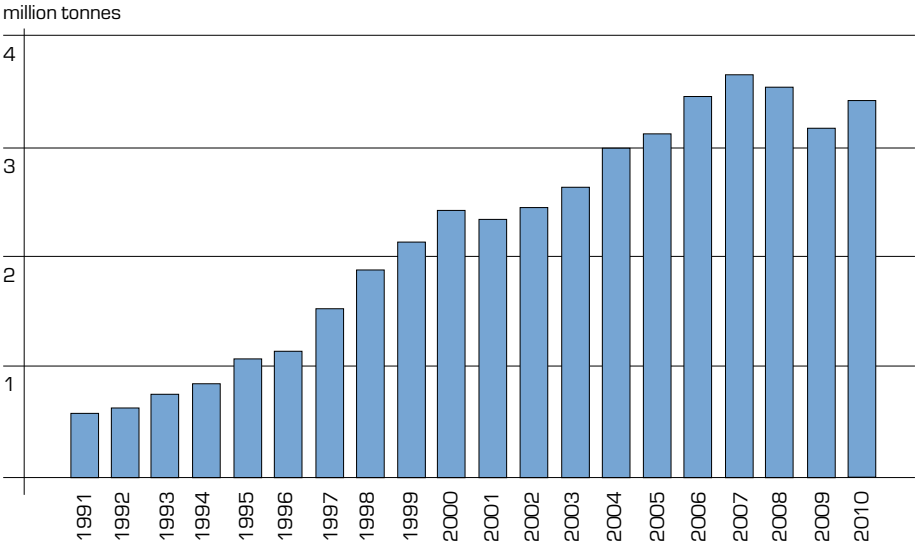


Figure 1.2.
Europe–Asia air cargo traffic in 1991–2010 (million tonnes)

Source: The Boeing Corporation, 2010

The Europe–Asia market is deemed to be one of the most attractive sectors for the air transportation business. The Boeing Corporation (2010) estimates that Europe–Asia flows incorporate significant sixth freedom routes, when airliners transporting European and Asian cargoes stop in their own countries (for example, Emirates in Dubai or AirBridgeCargo in Sheremetyevo).

It is also interesting to see how air cargo traffic is structured. The main items transported from Asia westbound are automobile parts and accessories (26.3% of the total) and from Europe eastbound are machinery and equipment (35.5%). The percentage of express mail is also high. Documents and express small packages account for 15% of Asia–to–Europe cargo flows and 9% of Europe–to–Asia traffic (Boeing Corporation, 2010).

Boeing estimates that, over the next twenty years, Europe–Asia traffic will average 6.6% growth a year, reaching 11–12 million tonnes per year by 2029 (Boeing Corporation, 2010).

The optimal correlation of three factors (price, quality and delivery time) enables air transport to attract a significant amount of freight traffic from maritime transport, the main transportation mode for cargo moving between Europe and Asia.

Chapter 2. Air Transport Market: Current status and future trends

The most significant features of EurAsEC's air transport market are its dependence on the economic development of its member states, the welfare of their populations, the countries' openness to international tourism and the volumes and specialisation of international trade.

During the first ten years of the 21st century, passenger and cargo traffic in EurAsEC grew steadily, underpinned by growth in real incomes and increased demand for air cargo transportation both within the Community and between the leading global markets (Europe and Asia).

Despite the decline in air traffic in 2008–2009 as a result of the global economic crisis, since 2010 all EurAsEC member states have been regaining their former positions in the air cargo market.

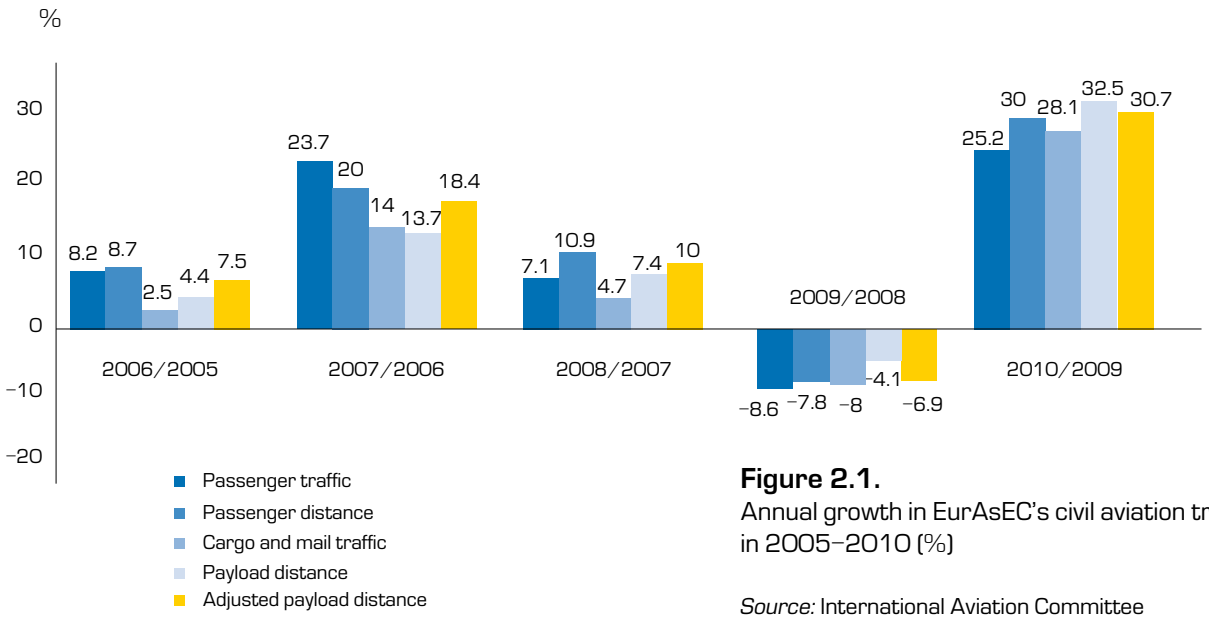


Figure 2.1.
Annual growth in EurAsEC's civil aviation traffic in 2005–2010 (%)

Source: International Aviation Committee

Since 2007, the fuel factor has been having negative effect on the air transportation market. Over the last four years (except 2009), world oil prices and, consequently, aviation fuel prices, have been growing, reaching record highs by the summer of 2008.

Fuel accounts for the lion's share of any airline's expenditures and fuel prices therefore have a direct effect on tariffs. The rising cost of passenger and cargo transportation caused by the increase in oil prices will hamper the development of civil aviation in EurAsEC in the near future. Nevertheless, air traffic in Eurasia has been developing at a faster pace compared to the global average.

The development of EurAsEC's civil aviation strongly depends on general trends in world aviation and on global socioeconomic, political and other factors. In 2010, world passenger traffic on ICAO member states' scheduled airlines exceeded 4.5 trillion pkm, up 7.3% on 2009, and adjusted payload distance totalled 523.3 billion tkm (up 3.8%). This traffic grew even more rapidly in EurAsEC in 2010.

In 2010, EurAsEC's civil aviation accounted for 3.6% of the world's tonne kilometres; over the last five years its share of this market has grown by over 150% (see Table 2.1).

Table 2.1.
EurAsEC and ICAO's adjusted payload distance in 2005–2010 (billion adjusted tkm)

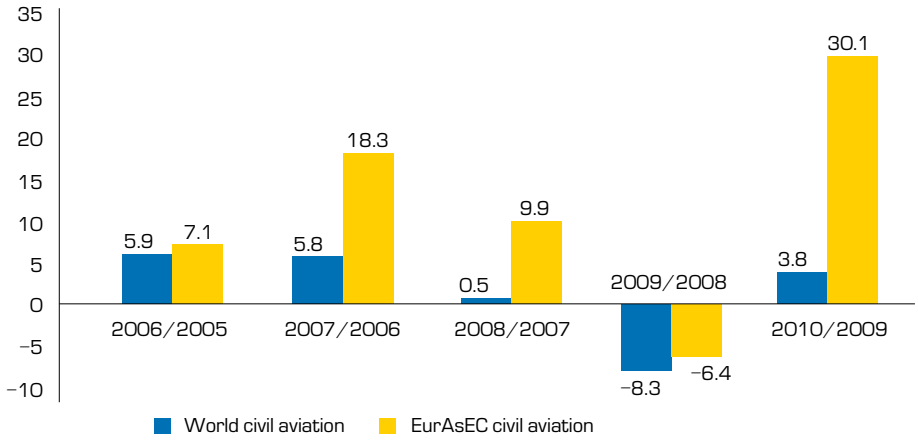
Source: ICAO, International Aviation Committee

	2005	2006	2007	2008	2009	2010	2010/2005 (%)
ICAO member states	487.9	516.7	546.7	549.7	504.1	523.3	107.3
EurAsEC member states	11.2	12	14.2	15.6	14.6	19	169.6
EurAsEC's share (%)	2.3	2.3	2.6	2.8	2.9	3.6	+1.5%

Over the last five years, EurAsEC's adjusted payload, passenger and payload distances have grown at a faster pace than total world civil aviation as represented by the 189 ICAO member states (see Figure 2.2).

Figure 2.2.
Annual growth of adjusted payload distance in world and EurAsEC civil aviation in 2005–2010 (%)

Source: ICAO, International Aviation Committee



Economic development and population mobility in EurAsEC member states facilitated growth of almost 280% in scheduled and non-scheduled passenger traffic in 2000–2010, from 56.9 billion passenger kilometres in 2000 to 157.7 billion passenger kilometres in 2010 (see Table 2.2).

Table 2.2.
EurAsEC's domestic and international passenger traffic in 2000–2010 (billion pkm)

Source: International Aviation Committee

	2000	2005	2006	2007	2008	2009	2010	2010/2000 (%)
Belarus	0.5	0.7	0.8	1	1.3	1.3	1.6	320
Kazakhstan	1.6	3	3.1	4.9	5.5	5.4	6.3	393.8
Kyrgyzstan	0.5	0.4	0.4	0.5	0.6	0.5	0.7	140
Russia	54	85.8	93.7	111	122.6	112.5	147.1	272.4
Tajikistan	0.3	1	0.8	1.2	1.5	1.6	2	666.7
Total EurAsEC	56.9	90.9	98.8	118.6	131.5	121.3	157.7	277.2

The most significant increases in passenger traffic between 2000 and 2010 have been registered in Tajikistan (6.7 times), Kazakhstan (4 times) and Belarus (3.2 times) (see Figure 2.3).

Passenger turnover have shown a similar trend. According to the IAC, EurAsEC's passenger turnover grew 2.5 times to 62.7 million people in 2010 (see Table 2.3). The highest increases in 2000–2010 were registered in Kazakhstan (4.1 times), Tajikistan (4 times), and Belarus (3.3 times).

Russian airlines account for over 90% of total passenger, cargo and mail traffic. Kazakhstan is the second largest passenger transportation market in EurAsEC (5.3% of the total in 2010).

	2000	2005	2006	2007	2008	2009	2010	2010/2000 (%)
Belarus	0.3	0.5	0.5	0.6	0.8	0.8	1	333.3
Kazakhstan	0.8	1.6	1.9	2.7	2.8	2.7	3.3	412.5
Kyrgyzstan	0.3	0.2	0.2	0.3	0.3	0.3	0.3	100
Russia	23	35.1	38	46.6	49.8	45.1	57	247.8
Tajikistan	0.2	0.5	0.4	0.6	0.7	0.7	0.8	400
Total EurAsEC	24.9	37.9	41	51	54.4	49.6	62.4	253.7

Table 2.3.
EurAsEC's domestic and international passenger turnover in 2000–2010 (million people)

Source: International Aviation Committee

Over 2000–2010, EurAsEC's scheduled passenger traffic, passenger distance and payload distance have been growing significantly faster than those of non–scheduled airlines. In 2010, the share of EurAsEC scheduled airlines in passenger transportation was 78.2% (see Figure 2.3).

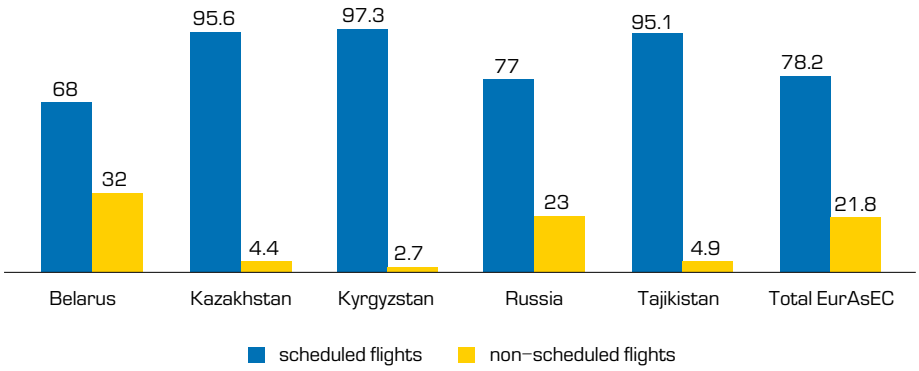


Figure 2.3.
EurAsEC's scheduled and non–scheduled passenger traffic in 2010 (%)

Source: International Aviation Committee

Scheduled flights account for 95.6% of all passenger flights in Kazakhstan, 97.3% in Kyrgyzstan and 95.1% in Tajikistan.

In 2010, 49% of passengers within EurAsEC travelled on international flights. In the last ten years, international passenger traffic has grown faster than traffic on domestic flights. Belarus has almost no domestic flights (see Figure 2.4). The share of international flights in Kyrgyzstan and Tajikistan is high (74% and 84%, respectively).

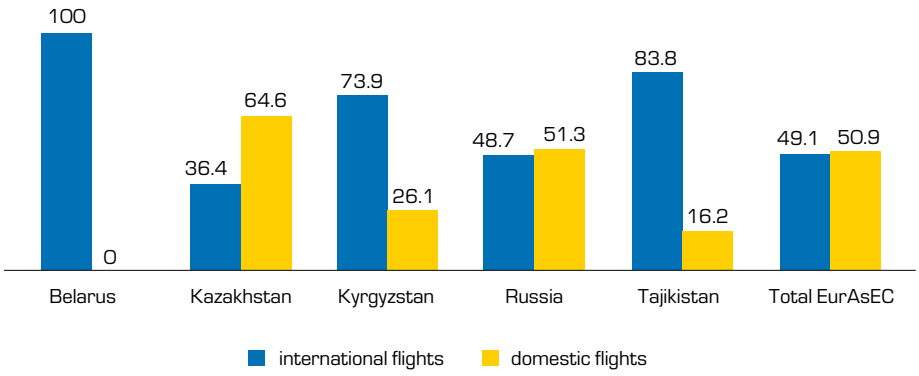


Figure 2.4.
EurAsEC's international and domestic passenger traffic in 2010 (%)

Source: International Aviation Committee

The average distance flown by each passenger within EurAsEC in 2010 was 2,528 km (see Figure 2.5). Among EurAsEC member states, Russia had the longest flight distance per passenger (2,583 km) and Belarus the shortest (1,584 km).

Although leading foreign airlines provide international flights in EurAsEC and aim to expand their destination network as well as passenger and cargo traffic, domestic airlines account for approximately 66% of international passenger traffic (see Figure 2.6).

Figure 2.5.
Average distance flown per passenger in EurAsEC in 2010 (km)

Source: International Aviation Committee

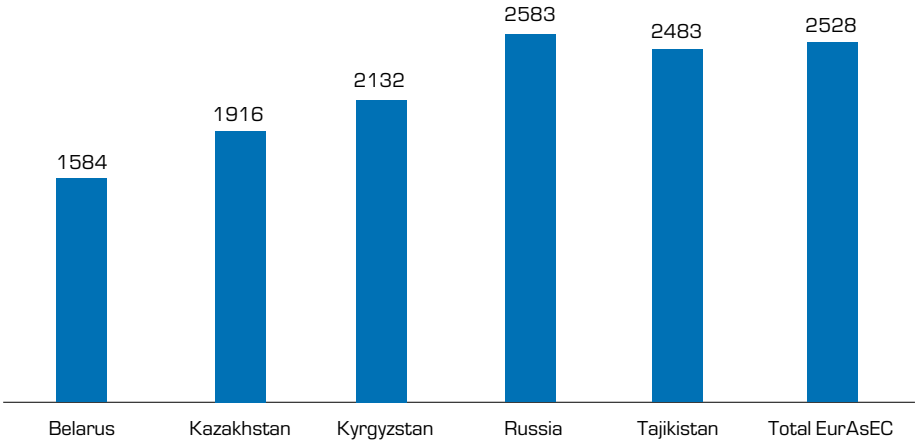
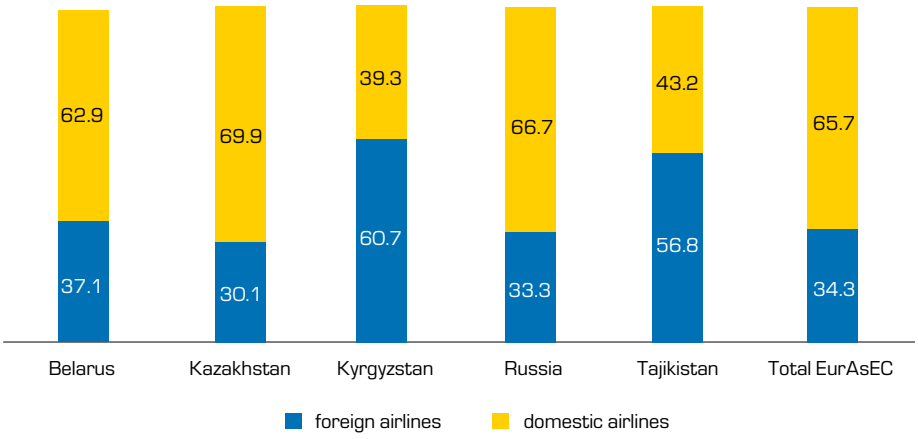


Figure 2.6.
International passenger traffic through EurAsEC by domestic and foreign airlines in 2010 (%)

Source: International Aviation Committee



In 2010, 23.3 million passengers departed from EurAsEC airports to international destinations, of which 7.97 million people travelled by foreign airlines and 15.3 million people by domestic airlines. However, the country-to-country distribution of foreign companies' shares in international passenger traffic varies significantly. Their share is high in Kyrgyzstan and Tajikistan and relatively low in Kazakhstan and Russia.

In 2010, EurAsEC's civil aviation companies transported over 964,000 tonnes of freight and mail, a 69% increase over the last ten years. Belarus showed the highest approximately fourfold increase in freight traffic. At the same time, cargo traffic in Kyrgyzstan declined almost threefold in 2010, compared to 2000. Russia accounts for more than 96% of all cargo traffic (see Table 2.4).

Table 2.4.
EurAsEC's domestic and international cargo and mail turnover in 2000–2010 (thousands tonnes)

Source: International Aviation Committee

	2000	2005	2006	2007	2008	2009	2010	2010/2000 (%)
Belarus	4.4	14.5	25.7	20.8	17.8	22	17.48	397.3
Kazakhstan	13.8	20.7	16.5	25.7	17.6	15.8	17.2	124.6
Kyrgyzstan	2.9	1.4	0.7	0.6	0.9	0.8	1	34.5
Russia	546.6	628.9	640.3	732.2	779.4	712.2	926.4	169.5
Tajikistan	2	3.7	2.4	2.1	2.5	2.2	2.2	110
Total EurAsEC	569.7	669.2	685.6	781.4	818.2	753	964.3	169.3

Most cargo in EurAsEC is transported on scheduled flights. Non-scheduled air cargo traffic increased its share significantly in late 20th century but has been declining gradually since 2006.

The growth of scheduled traffic is partly a result of tougher regulation for charter carriers and partly because some EurAsEC airlines have expanded their scheduled freight transporation programmes, in particular between Europe and Asia.

Scheduled flights account for 71.4% of all cargo and mail traffic in EurAsEC. In Kazakhstan, Kyrgyzstan, and Tajikistan their share exceeds 90%. Belarus is the only country where charter cargo traffic exceeds scheduled. In 2010, charter carriers accounted for 91.4% of all traffic in the country (see Figure 2.7).

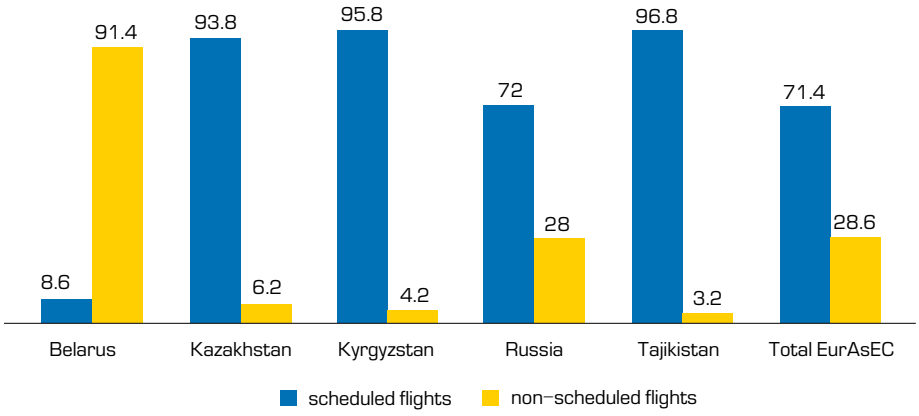


Figure 2.7.
EurAsEC's scheduled and non–scheduled cargo and mail traffic in 2010 (%)

Source: International Aviation Committee

International freight and mail traffic in EurAsEC in 2010 totalled 693,000 tonnes (71.9% of the total) and domestic traffic 271,000 tonnes (28.1%). In Belarus, cargo and mail are transported by air to international destinations only (see Figure 2.8). Russia and Kazakhstan boasted the highest domestic traffic (28.4% and 42.6% of the total, respectively).

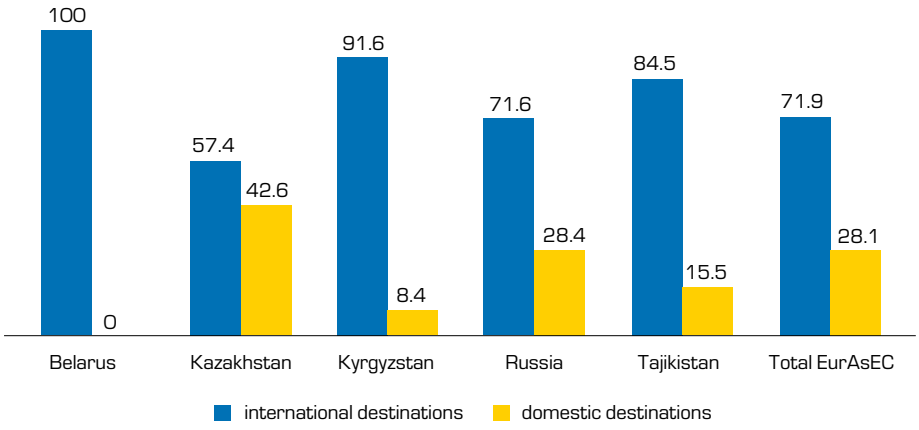


Figure 2.8.
EurAsEC's international and domestic cargo and mail traffic in 2010 (%)

Source: International Aviation Committee

In 2010, foreign carriers accounted for 32.7% of cargo and mail traffic through EurAsEC's international airports. Russia is the only country where foreign airlines transport less than 25% of all freight. In other EurAsEC member states, their share is significantly higher: 63.3% in Belarus, 68.7% in Kazakhstan, 61.5% in Kyrgyzstan and 45.4% in Tajikistan (see Figure 2.9).

In terms of payload distance, EurAsEC's cargo traffic increased by 76.1%, compared to 2000. Belarus demonstrated the most significant increase (3.3 times), while in Kazakhstan and Kyrgyzstan this figure declined (see Table 2.5).

As shown in *Figure 2.11*, in 2010 the utilisation of aircraft capacity in EurAsEC countries was significantly lower than the world average seat occupancy of 77%.

Figure 2.9.
International cargo and mail traffic via EurAsEC airports by domestic and foreign airlines in 2010 (%)

Source: International Aviation Committee

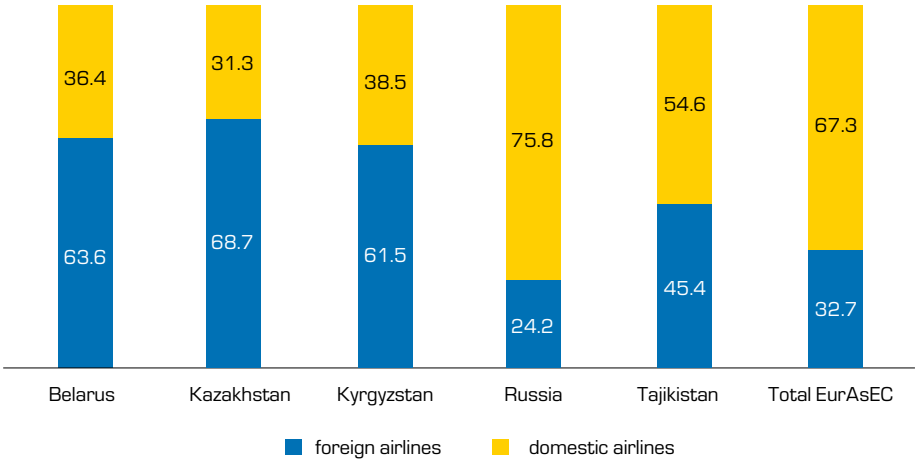


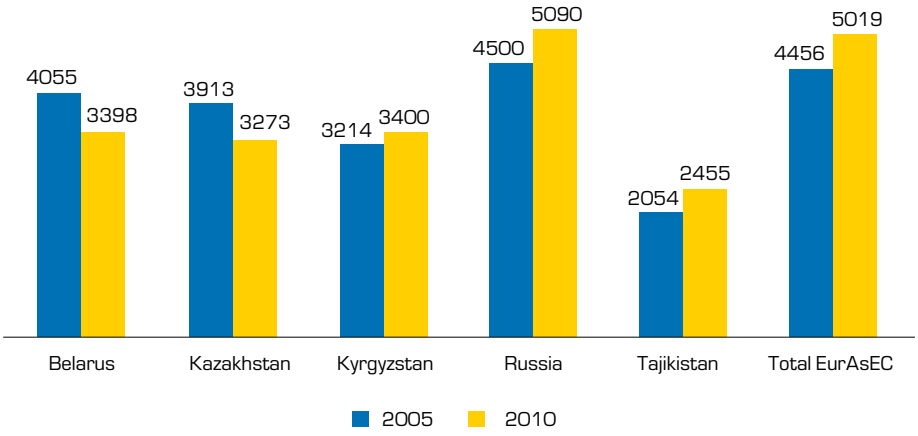
Table 2.5.
EurAsEC's domestic and international cargo and mail traffic in 2000–2010 (million tkm)

Source: International Aviation Committee

	2000	2005	2006	2007	2008	2009	2010	2010/ 2000 (%)
Belarus	18	58.8	91.5	66.3	53.8	48	59.4	330
Kazakhstan	117.5	81	77.9	42.3	46.5	30	56.3	47.9
Kyrgyzstan	8.8	4.5	1.4	1.3	2.5	1.8	3.4	38.6
Russia	2600	2830.3	2932.2	3424.3	3691.6	3557.7	4715.4	181.4
Tajikistan	4.3	7.6	9.4	4.8	5.2	5.1	5.4	125.6
Total EurAsEC	2748.6	2982.2	3112.4	3539	3799.6	3642.6	4839.9	176.1

Figure 2.10.
Average cargo and mail transportation distance in EurAsEC in 2005 and 2010 (km)

Source: International Aviation Committee



The utilisation of aircraft capacity varies significantly across EurAsEC. Kyrgyzstan and Russia have the highest rates (84.3% for passenger traffic and 78.9% for cargo traffic in Kyrgyzstan; and 78.2% and 66.4% in Russia, respectively).

International commercial flights in EurAsEC are operated by more than 200 domestic air carriers and 100 foreign companies. *Table 2.6* shows the performance of the main domestic players in terms of passenger and cargo traffic.

EurAsEC's largest cargo carrier is AirBridgeCargo, a member of the Volga–Dnepr Group. The company uses Boeing 747F aircraft on Europe–Asia and other routes (see Table 2.7). Polet is another emerging air carrier. This company became the first operator of the IL–96–400

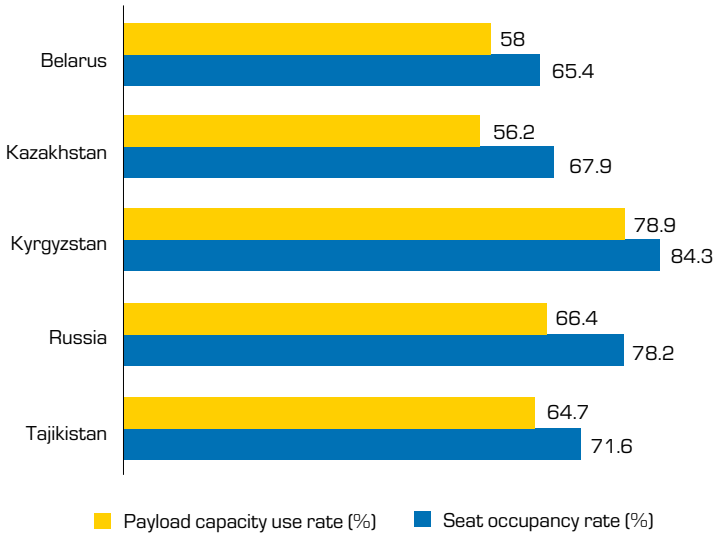


Figure 2.11.
Utilisation of EurAsEC's aircraft capacity in 2010

Source: International Aviation Committee

Airline	2005	2006	2007	2008	2009	2010 (estimate)
Belarus						
Belavia	660	n/i	952	1,252	1,262	n/i
Kazakhstan						
Air Astana	2,511	2,417	4,452	4,795	4,525	5,082
SCAT	157	258	n/i	n/i	n/i	n/i
Kyrgyzstan						
Kyrghystan	183	n/i	n/i	n/i	n/i	n/i
Russia						
Aeroflot	20,751	22,407	24,675	27,248	25,986	34,777
Transaero	5285	7793	11,759	17,549	18,733	26,294
Sibiria/S7	10,942	12,498	13,900	14,351	13,155	10,279
Utair	2,977	3,666	4,510	5,063	5,828	7,982
OrenAir		988	1,656	3,031	4,940	7,159
Rossia (GTK Rossia)/Pulkovo	5,717	6,118	6,792	7,454	6,150	6,242
Nord Wind	n/i	n/i	n/i	71	2,898	5,086
Ural Airliny	2,348	2,609	2,998	3,948	4,035	4,841
Vladivostok Avia	1,852	2,105	2,447	2,943	3,875	4,756
VIM-Avia		3,650	5,294	4,455	3,214	3,978
Moskva Airlines/AtlantSoyuz		3,109	4,355	3,653	2,612	3,303
Yakutia	n/i	n/i	1,135	1,600	2,244	3,028
Globus	n/i	n/i	n/i	1,518	2,696	2,714
Red Wings	n/i	n/i	n/i	1,094	2,021	2,437
DonAvia (Aeroflot-Don)	911	875	1,665	2,540	2,392	2,423
NordAvia (Aeroflot-Nord)	886	1,044	1,539	1,375	1,528	1,972
Tajikistan						
Tajikistan	1,030	n/i	n/i	n/i	n/i	n/i
Somon Air	n/i	n/i	n/i	n/i	729	n/i

Table 2.6.
Scheduled passenger traffic by EurAsEC's largest airlines in 2005–2010 (million pkm)

Source: ATW (2010)

Note: n/i – no information

freighter. Five airlines, AirBridgeCargo, Aeroflot, Volga–Dnepr, Polet and Transaero, account for about 84% of all cargo traffic in EurAsEC.

Table 2.7.
Scheduled cargo traffic by EurAsEC's largest airlines in 2005–2010 (million tkm)

Source: ATW (2010)

Note: n/i – no information

Airline	2005	2006	2007	2008	2009	2010 (estimate)
Belarus						
Belavia	1,181		1,810	2,000	2,000	n/i
Kazakhstan						
Air Astana	15,857	20,420	38,000	48,000	38,000	n/i
Kyrgyzstan						
Kyrghystan	2,707	n/i	n/i	n/i	n/i	n/i
Russia						
Air Bridge Cargo	n/i	n/i	n/i	1,101,798	1,317,708	2,057,883
Aeroflot	866,800	885,000	457,000	390,996	399,867	952,172
Aeroflot Cargo	n/i	n/i	n/i	436,650	426,000	–
Volga–Dnepr	748,369	995,000	661,779	618,826	526,108	499,292
Polet	n/i	n/i	179,138	161,660	105,895	246,402
Transaero	73,338	78,000	93,048	130,032	170,803	234,421
Aviacon Citotrans	n/i	n/i	n/i	55,459	61,336	101,400
Sibiria/S7	67,107	82,000	92,310	120,168	98,523	91,413
Vladivostok Avia	28,765	33,000	25,830	32,496	40,907	70,479
Aerostars	n/i	n/i	20,617	25,300	25,954	36,302
Utair	14,401	17,000	21,450	23,206	23,071	31,969
Ural Airlines	14,969	14,000	13,800	15,000	20,112	32,748
Alrosa	n/i	n/i	56,783	56,247	34,912	30,100
Tajikistan						
Tajikistan	7031	n/i	n/i	n/i	n/i	n/i
Somon Air	n/i	n/i	n/i	n/i	1,830	n/i

The specific features of EurAsEC's air cargo market are that its domestic carriers are market leaders in non–scheduled flights by ramp aircraft and that foreign companies are now expanding their presence in the express cargo and mail delivery markets.

The express delivery market in EurAsEC is dominated by the «Big Four» (DHL, TNT Express, United Parcel Service and Federal Express) and accounts for more than 50% of all mail transported by air. The market leader is DHL. Experts estimate that 60%–75% of express mail is flown to international destinations.

The ramp aviation[1] segment handles transportation of outsize and heavy cargoes, machinery or other freights that cannot be transported in standard airfreight containers for whatever reason. The leaders in this segment are Volga–Dnepr and Polet, whose fleets include ramp aircraft such as the IL–76 and the AN–124 Ruslan.

As at the beginning of 2011, EurAsEC had 99 functioning international airports, 49 of which (49.5%) were assigned ICAO categories (see Table 2.8). The list of EurAsEC's international airports, including ICAO category aerodromes, is provided in *Annex*.

Less than one third of EurAsEC's international airports are suitable for long–range cargo aircraft with heavy takeoff weights such as the McDonnell–Douglas MD–11 and the Boeing–747 (various versions). The technical characteristics, including lighting and radio facilities,

[1] Ramp aviation is an airlift system using ramp aircraft. A ramp aircraft has a special front or rear ramp so that the transported or loading machines can drive on board. Ramp aircrafts are widely used in military aviation and are irreplaceable in civil aviation where outsize and heavy items need to be transported.

Country	Total international airports	Categorised aerodromes *			
		Total	Category		
			I	II	IIIA
Belarus	7	1	–	1	–
Kazakhstan	16	7	4	1	2
Kyrgyzstan	2	1	1	–	–
Russia	72	39	26	10	3
Tajikistan	2	1	1	–	–
Total EurAsEC	99	49	32	12	5

Table 2.8.
EurAsEC's international airports, including ICAO category aerodromes

Source: CIS (2007)

Note: * Airports with runways having ICAO categories.

of Almaty, Astana, Domodedovo (Moscow), Yemelyanovo (Krasnoyarsk), Kazan, Koltsovo (Yekaterinburg), Knevichi (Vladivostok), Tolmachevo (Novosibirsk), Sheremetyevo (Moscow) and Novy (Khabarovsk) airports make it possible for them to become Europe–Asia cargo hubs. The majority of these airports have undergone extensive upgrading and construction work in 2005–2011.

In 2008, for example, a second runway was commissioned at **Almaty International Airport**. The runway has a concrete surface and modern lighting equipment. Its technical parameters (4.5 km long, 60 m wide) enable it to handle all types of aircraft without restriction on MTOW or flight intensity. **Astana Airport's** runway was extended to 3.5 km after the capital of Kazakhstan moved to Astana in 1997. Since its large-scale reconstruction between 2002 and 2005, the airport has been able to service all types of aircraft without any restrictions.

Kazan Airport was reconstructed in 2005 to mark the city's millennium. Its concrete runway (3.724 km long and 44 m wide) can receive the B-747 and has been certified to ICAO CAT II.

On April 15, 2011, a new runway was commissioned at **Knevichi Airport** in Vladivostok. The runway was extended to 3.5 km and is 60 m wide. It can receive all types of aircraft without any restriction. The runway was built using materials and technologies that meet international standards, including lighting and weather equipment and navigation systems for landing from both magnetic directions.

On June 1, 2009, a modern 3.025 km-long runway and a new ATC tower were commissioned at **Koltsovo Airport** in Yekaterinburg. The airport can handle all types of aircraft (except Airbus 380). On June 14, 2009, an Air China Boeing 747, with a government delegation on board, landed at Koltsovo for the first time.

In 2008, high-intensity lights, runway centreline lights and touchdown zone lights were installed at **Yemelyanovo Airport** in Krasnoyarsk. Yemelyanovo's runway is one of four landing strips in Russia beyond the Urals with ICAO CAT II. Lufthansa Cargo uses this airport as a transit point for flights from Europe and Japan (and other Southeast Asian countries), with 100 flights a month. Cargoitalia's aircrafts land at Yemelyanovo for refuelling and maintenance during flights to Shanghai.

A second runway was commissioned at **Tolmachevo Airport** in Novosibirsk in September 2010. The airport is now capable of handling all types of aircraft. Tolmachevo holds the IATA platinum certificate, confirming it is equipped with innovative technology for simplifying airport formalities (IATA Simplifying the Business, BCBP). This is Russia's fourth airport to implement this technology fully after Domodedovo, Sheremetyevo and Pulkovo.

After reconstruction in 2008, a second 3.7 km runway opened at Moscow's **Sheremetyevo Airport**. It can handle all types of airliners, including the Airbus 380. The airport has one of EurAsEC's largest cargo terminals. It is open 24/7, has an area of 3,200 m^2 and can handle approximately 60 tonnes of freight a day. A new 100,000 m^2 multimodal cargo terminal is being built near the northern passenger terminals.

In 2003, the first manoeuvring area at **Domodedovo Airport**, which includes Runway 1, was reconstructed under the Federal Target Programme *Modernisation of the Transport System of the Russian Federation (2002-2010)*. This allowed the airport's Runway 1 and taxiways to service takeoff, landing and manoeuvring (with the aircraft's own engines, without traction) of any types of aircraft, including all Airbus 380 types. The dimensions and load-bearing capacity of reconstructed sections of the aerodrome meet the requirements of the IAC, the Russian Federation and the ICAO Standards and Recommended Practices for these types of aircraft. The runway is equipped to handle aircraft even in the most severe weather conditions. Domodedovo's cargo terminal is Russia's largest and most high-tech air-cargo facility. It handles over 140,000 tonnes of freight a year and this figure continues to grow.

On April 21, 2008, the government of St. Petersburg announced a tender for public-private partnership construction, reconstruction and operation of facilities at **Pulkovo Airport**. This project has become the first concession to be implemented at a Russian airport. The concession lasts for 30 years. The project includes the expansion of Terminal 1 and construction of infrastructure to raise the airport's capacity to 14 million passengers per year. The Eurasian Development Bank (EDB) provided $90 billion to finance this project. Financing was also provided by the European Bank for Reconstruction and Development, the International Finance Corporation, the Nordic Investment Bank, the Black Sea Trade and Development Bank, Vnesheconombank and some commercial banks. Together these banks provided financing of €716 million (EDB, 2011a).

As mentioned above, EurAsEC's airlines compete very successfully with foreign air carriers. However, foreign companies continue to expand their operations in the region. The largest foreign airline handling the region's international cargo is **Lufthansa**. This airline services flights to eleven destinations in EurAsEC: Minsk, Almaty, Astana, Domodedovo, Bolshoye Savino (Perm), Kazan, Pulkovo (St. Petersburg), Rostov-on-Don, Nizhniy Novgorod, Koltsovo (Yekaterinburg) and Kurumoch (Samara). Lufthansa Cargo carries 1.8 million tonnes of freight a year, up to 25% of which is transported from Germany to Asia Pacific destinations. Lufthansa's main transit hub in EurAsEC is Domodedovo. Its aircraft also make transit stops at Yemelyanovo.

Over the last few years, cargo transited through Sheremetyevo by Chinese air carriers Air China, China Southern Airlines and China Eastern Airlines, and through Domodedovo by Hong Kong's Cathay Pacific, has been on the rise. Air China Cargo also uses Tolmachevo as a transit airport.

Over 30 foreign companies are executing cargo deliveries between Europe and Asia Pacific via EurAsEC and their number continues to grow. At the beginning of 2011, Yangtze River Express, a Chinese cargo airline, launched a new route to Europe linking Shanghai, Chongqing, Moscow and Luxembourg. Flights are performed by the Boeing-747-400SF.

EurAsEC member states' policy to expand their trade and economic cooperation and to remove obstacles to mutual trade has provided solid foundations to expand air cargo traffic, including transit. However, the region's existing potential and the opportunities it offers for international transit through its territory are not fully exploited.

The World Trade Organisation (WTO) forecasts that Asia Pacific will remain the main generator of trade flows and that the amount of cargo traffic to Europe will grow dynamically. In these conditions, the countries that benefit most are those able to persuade operators to use their transport systems, including air routes, for Eurasian cargo operations.

Chapter 3. Utilisation of EurAsEC's Air Transport Potential

EurAsEC's ATM bodies service a total airspace of 30.9 million km^2 (see Figure 3.1). All its member states belong to the Eastern Part of the ICAO European Region and, as members of the ICAO, they must endeavour to implement its national ATM harmonisation strategy.

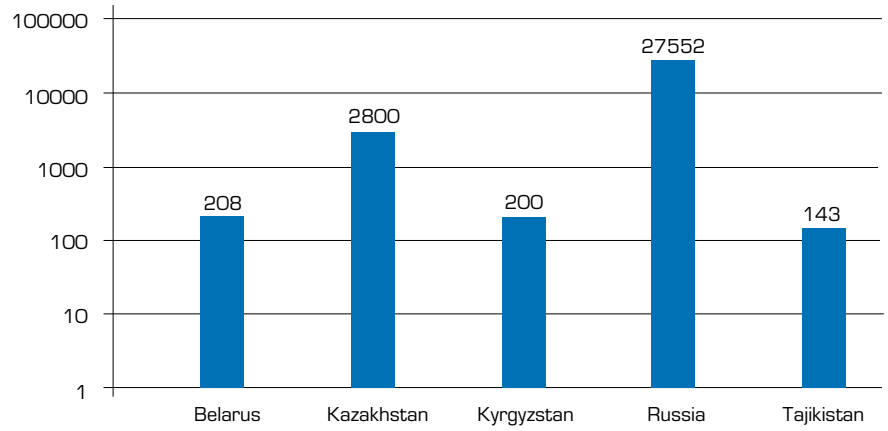


Figure 3.1.
Airspace serviced by EurAsEC's ATM bodies (thousands km^2)

Source: International Aviation Committee

EurAsEC airspace includes international and domestic routes. International routes allow transit through EurAsEC, linking Europe with Asia and Asia with North America.

The six air routes that pass through EurAsEC, and which are potential transit routes for foreign air carriers, are:

- Asian routes (Northern Europe–Near East/Central Asia);
- Trans–Siberian routes (Europe–Southeast Asia);
- Transpolar routes (Europe–Japan/Korea);
- Trans–Asian routes (Europe–Southeast Asia/India/Pakistan);
- Trans–eastern routes (US/Canada–Southeast Asia); and
- Cross–polar routes (US/Canada–Southeast Asia).

Only two of the six groups cross two or more EurAsEC member states. These are the Trans–Siberian route through Russia and Belarus and the Trans–Asian route through Russia, Kazakhstan, and Central Asian countries. The other routes cross Russia only.

Belarus

Belarus is located at the heart of Europe. Its airspace is used for flights between Europe and other EurAsEC countries. At present, Belarusian airspace provides the shortest air route from Japan, Australia and Singapore to Europe.

Belaeronavigatsiya, a republican unitary enterprise, provides the air traffic navigation services for these flights.

At present, over 925 air companies from 91 countries fly through Belarus and this number is growing. In 2010, approximately 200,000 transit flights were serviced by Belarus.

Belarusian air routes are shown in *Figure 3.3*.

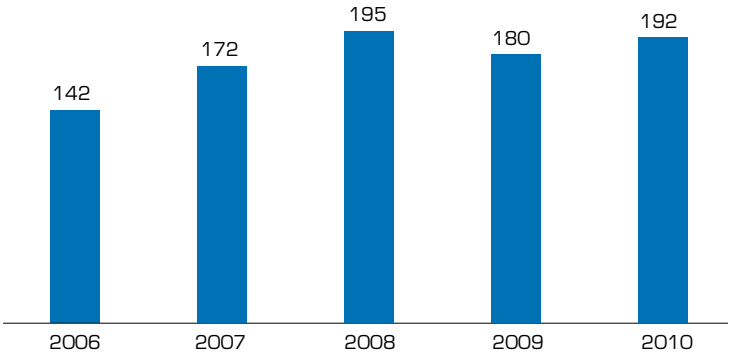


Figure 3.2.
Flights serviced by Belarus in 2006–2010 (thousands)

Source: Belaeronavigatsiya

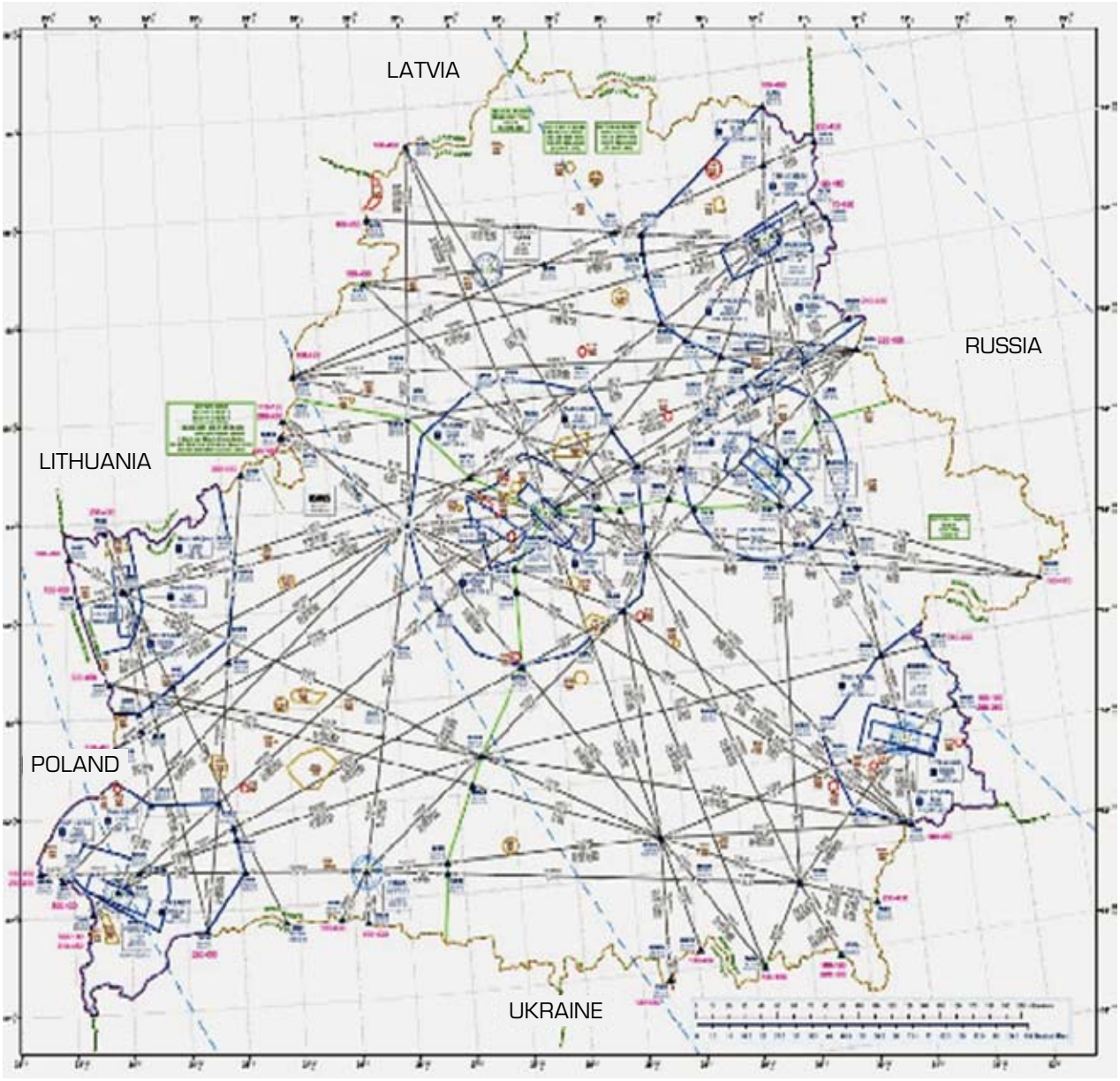


Figure 3.3.
Belarus' international air routes

Source: Belaeronavigatsiya

Kazakhstan

According to Kazaeronavigatsia, Kazakhstan has more than 70,000 km of air routes (Kazaeronavigatsia, 2011). The country has three air corridors with Azerbaijan, two with Turkmenistan, six with Kyrgyzstan, four with China and 27 with Russia. In recent years, air transit through Kazakhstan has been growing steadily at a rate of 10–15% per year (see Figure 3.4). In 2008, transit totaled 121 million aircraft kilometres compared to 82.5 million aircraft kilometres in 2004 (up 1.5 times over five years).

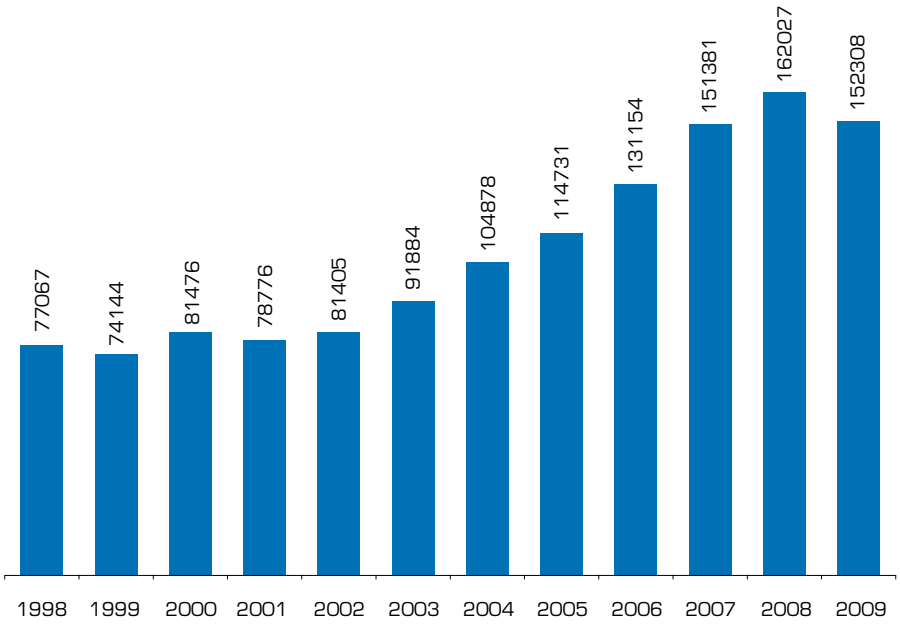


Figure 3.4.
Flights serviced by Kazakhstan in 1998–2009

Source: Civil Aviation Master Plan (without date)

Transit traffic through Kazakhstan has a positive dynamic (see Figure 3.5).

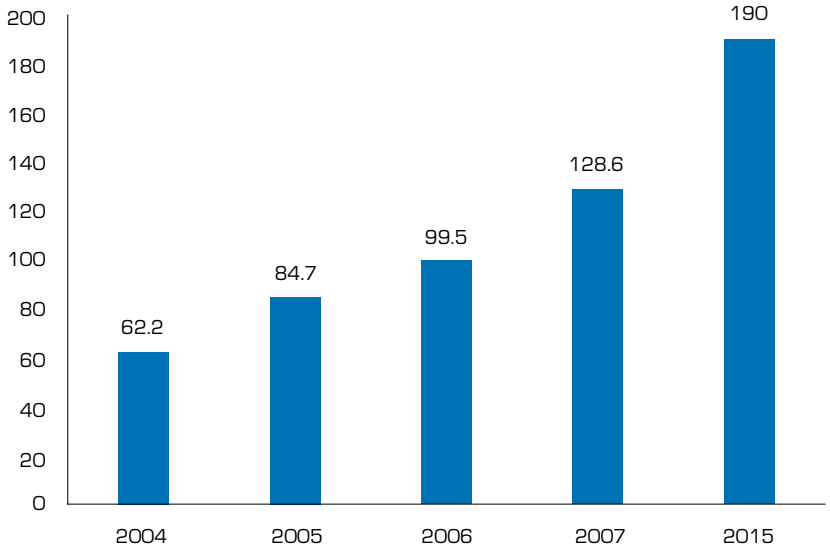


Figure 3.5.
Transit traffic through Kazakhstan with a forecast for 2015

Source: Feasibility Study (without date)

Kazakhstan's air space handles 220 planes per day. Transit through the country's airspace is carried out mainly by foreign and CIS air carriers flying from Europe and Russia to Southeast and Central Asia (Kazaeronavigatsia, 2011).

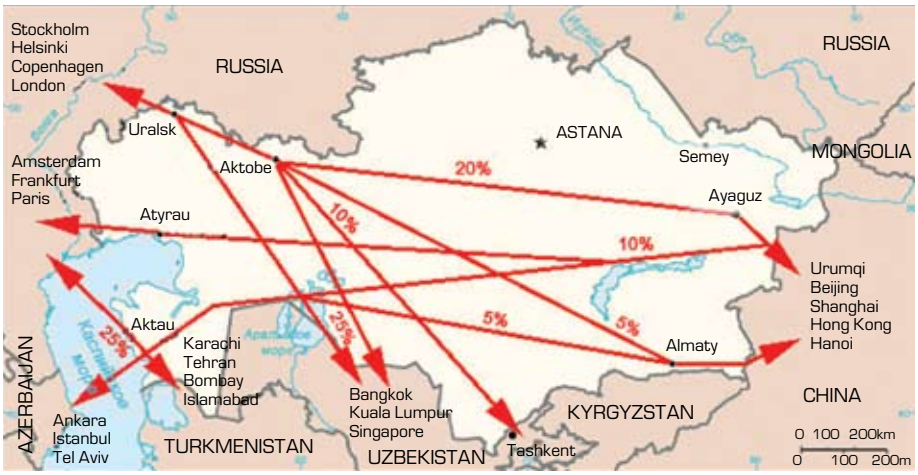


Figure 3.6.
Main transit routes through Kazakhstan

Source: Eurasian Development Bank

Note: Based on the Civil Aviation Master Plan (without date)

Kyrgyzstan

Kyrgyzstan has the necessary prerequisites to allow international flights through its airspace. As a member of the ICAO, the country has committed itself to international flight safety policy by adopting ICAO Standards and Recommended Practices for the development of its air navigation systems. The Kyrgyz government is committed to upgrading the country's air navigation systems in accordance with the ICAO requirements and creating the necessary air infrastructure to foster economic growth. Kyrgyzaeronavigatsiya is the state–run enterprise providing air traffic navigation services.

Kyrgyzstan has 12 international links with neighbouring countries: six with Kazakhstan, four with Uzbekistan, one with Tajikistan and one with China.

Kyrgyzstan's international air routes are shown in *Figure 3.7*.

Figure 3.7.
Kyrgyzstan's international air routes

Source: Kyrgyzaeronavigatsiya

According to Kyrgyzaeronavigatsiya, the West–East route between China and Uzbekistan through Kyrgyzstan accounted for 54.2% of all transit flights in 2010. Tajikistan–Kazakhstan routes were used for 28.2% of total transit. Other international routes account for 17.6%.

Russia

According to the Federal Air Transport Agency (Rosaviatsiya), in 2010 Russia serviced 1.1 million flights (see Figure 3.8), including 0.68 million operated by international air carriers (61.8%) and 0.43 million by Russian airlines (38.2%) (Rosaviatsiya, 2011).

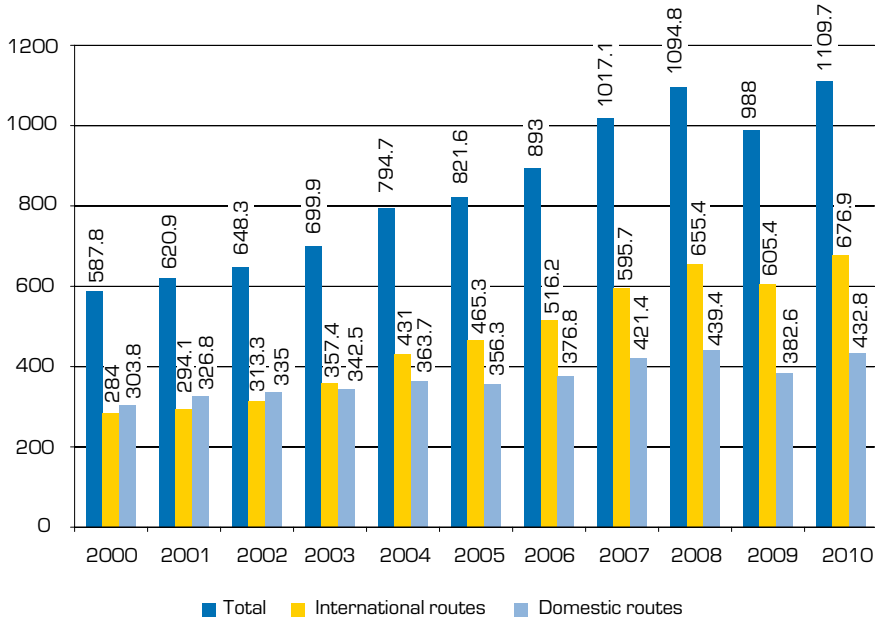


Figure. 3.8.
Scheduled and non–scheduled international flights in Russia in 2000–2010 (thousands)

Source: Russia's State ATM Corporation (2011)

In 2010, the ATS volume increased by 12.32% year–on–year and continued to grow in 2011 (see Figure 3.9).

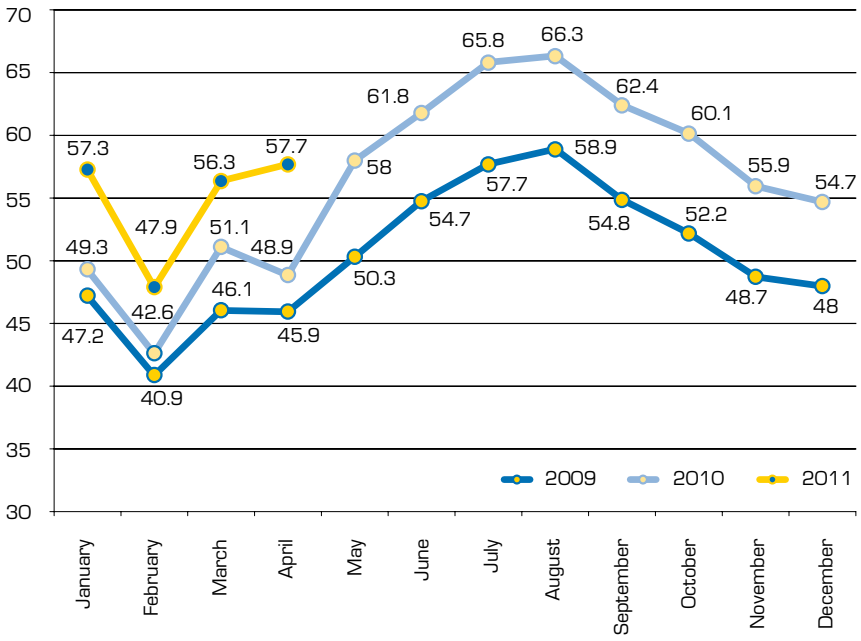


Figure 3.9.
Monthly dynamics of scheduled and non–scheduled international flights in Russia in 2009–2011 (thousands)

Source: Rosaviatsiya (2011)

Transit flights account for about 23% of all flights in Russian airspace. In 2010, two thirds of all transit flew on Trans–Asian and Asian ATS routes (see Figure 3.10).

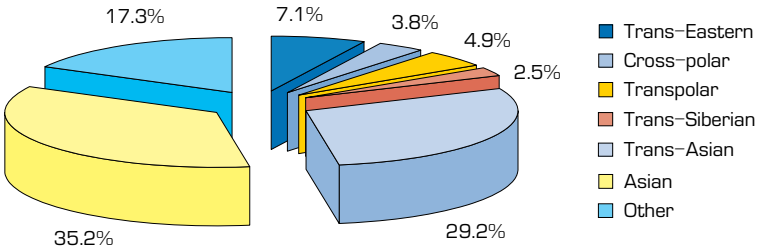


Figure 3.10.
Transit flights through Russia in 2010 by ATS route (%)

Source: Russia's State ATM Corporation (2011)

In 2010, 9,658 transit flights were made on cross–polar routes (equivalent to 1.4% of all international flights and 3.8% of transit flights through Russia) (Rosaviatsiya, 2011).

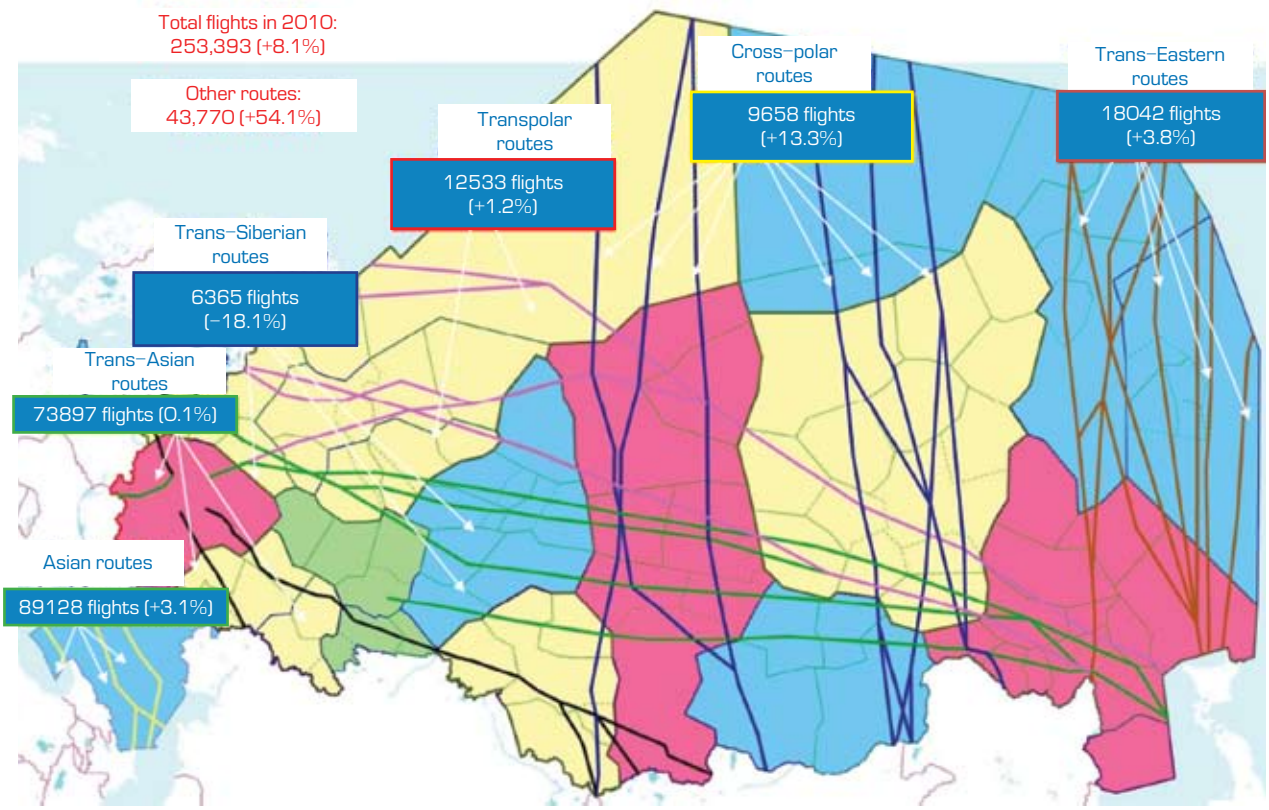


Figure 3.11.
Main transit routes through Russia in 2010

Source: Russia's State ATM Corporation (2011)

Russia has 809 air routes, including 486 international routes, representing a total distance of 441,000 km.

Cross–polar routes have seen the greatest increase in the number of flights in the last few years. Initially they were used only by US air carriers to fly from north to south. Now they are used by Canada, China, Korea, the United Arab Emirates and Thailand, as well as the US. For

example, the Emirates airline provides flights from Los Angeles and San Francisco to Dubai. Indian and Taiwanese companies are also interested in flying via the North Pole.

Taking into account the dynamic growth of passenger and cargo traffic between Asia Pacific (China in particular) and Europe/North America, routes that offer the greatest potential are transpolar, trans–Siberian and cross–polar routes crossing Russia, and trans–Asian routes crossing Russia and Kazakhstan.

Tajikistan

Tajikaeronavigatsiya, a state unitary enterprise, provides ATS in Tajikistan. In 2010, the country serviced 40,200 flights, including 17,100 transit flights (42.5%) (see Figure 3.12).

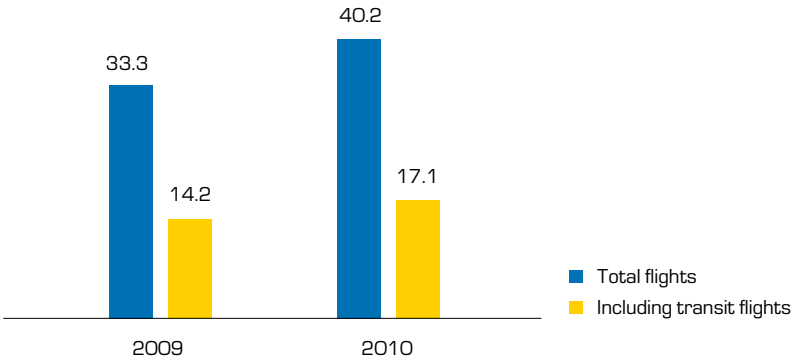


Figure 3.12.
ATS provided by Tajikistan in 2009–2010 (thousands)

Source: Tajikaeronavigatsiya (2011)

Tajikistan has 34 air routes totaling more than 3,000 km. Of these, 26 routes link the country with Uzbekistan, four with Afghanistan and four with Kyrgyzstan.

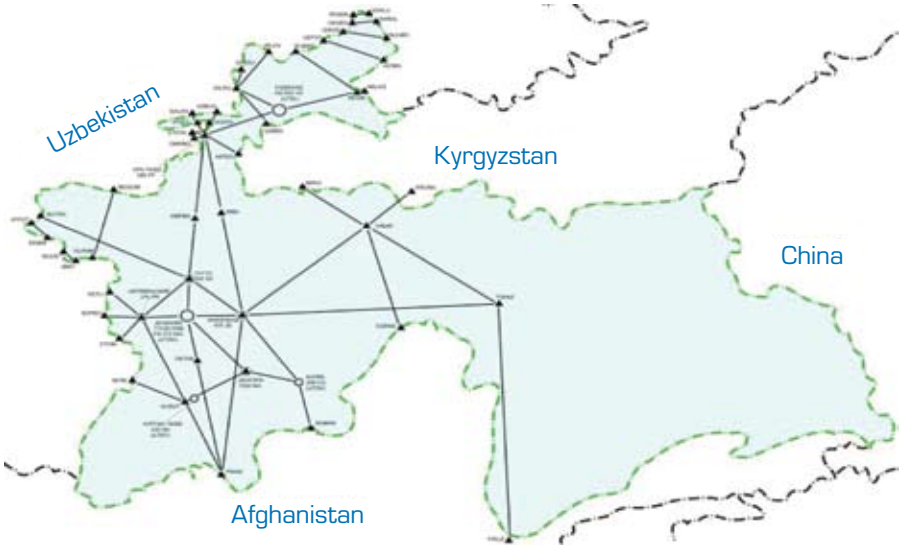


Figure 3.13.
Tajikistan's international air routes

Source: Tajikaeronavigatsiya (2011)

The main advantages of international air routes crossing EurAsEC are as follows:

- significant time savings for foreign air carriers;
- reduced transportation costs and, consequently, tariffs, which in turn generate higher demand for the Europe–Asia flights by foreign air carriers;
- increased frequency of transit flights provides additional benefits to EurAsEC member states such as ATS income and investment in airport infrastructure and ATS and ATM systems; and

- the development of international routes provides air carriers in the member states with access to Asian, European and American markets (in both passenger and cargo transportation).

The promising areas for the development of international traffic across Eurasia include transit by new types of aircraft such as the Airbus–380 and, in the longer term, the Boeing–747–800.

However, EurAsEC's airports must undergo further reconstruction so that they can handle such types of aircraft and serve as transit or backup aerodromes.

Chapter 4. Obstacles to the Development of Cargo Traffic

EurAsEC member states have similar histories and therefore face similar obstacles to the development of civil aviation. The problems that prevent, to a lesser or greater extent, the full utilisation of the Community's cargo transit potential can be grouped as follows:

- Significant depreciation of capital assets (aerodrome and airport infrastructure, aircraft);
- Underdeveloped logistics in the countries that could integrate cargo traffic;
- Lack of cargo carriers in EurAsEC that could compete in the Eurasian cargo transportation sector. Over the last 20 years, this sector has fallen behind technologically and fuel costs have been proportionally higher than in other countries;
- The need to harmonise ATM systems; and
- Regulatory and legal issues (mainly affecting access to market and commercial rights), which can become an obstacle to the development of EurAsEC's air transport potential.

The main problem is that ground–based technology is not sufficient to meet current and future demand for cargo flights. Only a few airports and aerodromes are able to function as modern and competitive air hubs.

The majority of airports face the following key problems (CIS, 2007):

- long operating life of existing airports, averaging about 50 years;
- lack of technology;
- mismatch of ground–based services with current and future volume of operations and with new types of aircraft;
- poor passenger and cargo processing services (less regular flights, lower levels of comfort and other indicators); and
- lack of aerodromes with ICAO classification for weather minimums[1].

Runway category	Visibility, m		Landing control		
	Vertical visibility (cloud ceiling)	Horizontal visibility (from landing point)	Landing run	Exit to taxiway	Taxiing to terminal
I	at least 60	at least 800	crew	crew	crew
II	at least 30	at least 400	crew	crew	crew
III A	at least 15	at least 200	crew	crew	crew
III B	0	at least 75	automatic	crew	crew
III C *)	0	0	automatic	automatic	automatic

Source: Eurasian Development Bank

Note: * ICAO CAT III C is the best available instrument approach and landing system ensuring automatic taxi in zero visibility. This category is not yet in operation anywhere in the world

Table 4.1.
Classification of runways according to ICAO Standards and Recommended Practices

[1] Weather minimum is the minimum cloud ceiling allowing takeoff, landing and flying. Weather minimums are filed separately for an aerodrome, aircraft and pilots. At an aerodrome, weather minimums are filed separately for different runways and landing schemes.

For EurAsEC member states to integrate with the international cargo transportation system and develop their transit capacities, they need to ensure greater flight regularity irrespective of weather conditions. Only aerodromes and equipment meeting the requirements of ICAO CAT I, II or III can offer all–weather operation.

Currently, less than half of EurAsEC aerodromes have ICAO categories and only five aerodromes have CAT III A. There are no aerodromes in EurAsEC with CAT III B.

EurAsEC aerodromes are currently facing the following issues:

- they lack precision approach–and–landing and visual instruments, which would allow them to operate in poor weather conditions;
- the majority of runways need overhauling or rebuilding;
- lighting and power equipment is ageing or obsolete;
- the majority of radio navigation aids are ageing or obsolete;
- safety measures need to be improved, particularly with regard to the following:
  - geometric dimensions of aerodrome components and daytime marking;
  - light signalling equipment and power supply;
  - strength of pavement;
  - emergency and rescue equipment;
  - radio facilities;
  - meteorological equipment (CIS, 2007).

The development of new jumbo jets including the Airbus 380 and the Boeing–747–800 require strengthened airport pavements. There is an insufficient number of EurAsEC aerodromes that can receive such planes or serve as backup aerordromes for their transit flights. The underdeveloped logistics network undermines the competitiveness of EurAsEC airports in terms of cargo deliveries, because the time saved by air transportation is outweighted by the time of ground delivery between the airport and the freight owner. At present, only Moscow's Sheremetyevo and Domodedovo airports are integrated, to a greater or lesser extent, with Eurasian logistics chains. The development of logistics centres at airports would attract additional trade flows between EurAsEC member states and foreign countries.

Currently, AirBridgeCargo is the only Russian registered company offering scheduled commercial cargo transportation between Europe and Asia, which can stand comparison in terms of quality and quantity of services with other world leaders in the airfreight sector. AirBridgeCargo's fleet comprises and continues to be expanded with various versions of the Boeing–747 freight aircrafts. Its parent company, Volga Dnepr, and some other carriers, operate non–scheduled flights with ramp aircraft such as the AN–124.

EurAsEC's scheduled airfreight market has to be classified as undeveloped, or emerging, given the scale of operations in other regions. In 2010, for example, Cathay Pacific, one of Hong Kong's carriers, transported twice as many cargoes as all EurAsEC's air companies put together (ATW, 2010; Airline Business, 2010). The competitiveness of EurAsEC cargo carriers is undermined by the lack of modern, cost–efficient cargo aircraft such as the IL–96–400 or Boeing–747 MD–11, that meet international standards for ground noise, engine emissions and navigation precision. In EurAsEC in particular, there is a lack of aerodromes that can service such planes, which also hampers the development of cargo traffic. This continues to make air transportation in EurAsEc unattractive for potential shippers, and hence the vicious circle ensues where the lack of competition undermines the development of the air cargo business. So, the problem lies, to a significant extent, in the lack of investments in developing aerodrome networks.

As for ATM, EurAsEC member states need to complete the planned enlargement of ATM centres and introduction of reduced vertical separation minimums (RVSM). Satellite communication equipment also needs to be installed to link ATM centres in EurAsEC member states with their European, American and Asian counterparts.

The easing of administrative (non–physical) barriers is also critical to the development of scheduled international airfreight transportation in and through EurAsEC. These barriers can be classified as follows:

- business barriers,primarily high customs duties and taxes on aircraft purchased (including new aircraft);
- cross–border barriers for cargo traffic: lengthy customs clearance procedures for air cargo and other formalities at the member states' airports cancel out any benefits from faster delivery. Experience shows that the time taken to complete formalities is often significantly longer than the flying time; and
- regulatory barriers to market access: EurAsEC lacks an efficient market in delivering freight to third countries because of the provisions of bilateral intergovernmental air traffic agreements between EurAsEC member states.

The majority of the problems identified above can be resolved by member state governments if there is a political will to do so. The development of infrastructure requires investment, not only from governments but also from public–private partnerships. Aerodrome infrastructure must be brought into line with the latest requirements for handling large aircraft and with the ICAO Standards and Recommended Practices. This will significantly encourage the development of domestic and international traffic (including transit operations). The air transport sector is keen to simplify aircraft purchase and replacement procedures, to streamline cross–border procedures and enhance access to foreign markets, including markets in transportation between third countries.

Chapter 5. Prospects for Cooperation between EurAsEC Member States in the Aviation Sector

The experience of integration associations globally suggests that to achieve macroeconomic, trade and political goals, common transport potential must be an integral component of the common economic space and common market.

Transport (including civil aviation) is a key element of regional economic cooperation, without which the free trade zone, the customs and economic unions and the common market cannot be fully developed.

The development of integration associations increases passenger and cargo traffic between member countries. By the beginning of the 21st century, economic integration in different parts of the world has gathered pace. Civil aviation is no exception, as indicated by the development of the ICAO as an international regulator of this sector.

Multilateral cooperation in the development of international air traffic, harmonisation of commercial practices based on ICAO model agreements relating to international air traffic, and the expansion of access to the market should all be speeded up. In addition, the ICAO supports multilateral regional air traffic agreements that work to harmonise and simplify airline ownership, companies' control over their activities, non–discriminatory access to the market and other important issues.

As well as improving access to market for airlines, the removal of restrictions on investment is another important area of cooperation between countries in the civil aviation sector. Transport companies can invest more freely in businesses in other member states, buy shares in air carriers, acquire other carriers or create new integrated structures. Such practices are relatively common in the European Union, as demonstrated by Lufthansa, Air France–KLM and British Airways–Iberia.

Another important issue for regional integration is the free movement of specialists (pilots) which will enable them to find jobs in other member states of an integration association. Currently, air transport regulations in the majority of EurAsEC member states prohibit the employment of foreign pilots. This policy affects aircrews and key airline personnel (managers, chief accountants, etc.).

In this context, it is important to understand the paramaters of the Common Transport Space EurAsEC is creating and to assess the role of civil aviation within it.

The Community's Interstate Council (heads of government) approved the Blueprint for the Formation of EurAsEC Common Transport Space on January 25, 2008 (Resolution 374). The Blueprint defines the Common Transport Space as a combination of the transport systems of EurAsEC member states ensuring free movement of passengers, baggage, freight and vehicles, as well as technical and technological compatibility of transport processes, harmonised transport laws and common competition rules. The Common Transport Space covers all modes of transport, the suppliers of transport and supplementary carrier services, and all forms of ownership irrespective of the country of incorporation (EurAsEC, 2008).

In other words, civil aviation, including international passenger and cargo traffic, is integral to the creation of the EurAsEC Common Transport Space.

Section 3.1 of the Blueprint discusses the creation of a common market in transportation services. It includes the following measures (EurAsEC, 2008):

- ensuring suppliers of transport services are operating in conditions no less favourable than those applicable to similar domestic companies;
- ensuring free transit of international passenger and cargo flows;
- harmonising the terms of passenger and cargo transportation between EurAsEC member states and third countries;
- adopting uniform approaches to commercial competition and preventing abuses of competition; and
- promoting mutual recognition of certificates, diplomas and other documents regulating access to transport operations.

These measures are compatible with the goals and objectives of EurAsEC's Customs Union and Common Economic Space. In particular, the Blueprint for the Formation of the Common Economic Space (CES, 2003) aims to create the conditions that ensure stable and efficient development of the economies of the member states and improve the quality of life of their citizens. The main principle of the Common Economic Space is to ensure free movement of goods, services, capital and labour across the borders of the member states.

The Common Economic Space should be created gradually, through enhanced integration, synchronisation of the member states' economic reforms, development of a concerted economic policy, as well as harmonisation and unification of economic, trade and other laws taking into account the generally accepted rules and principles of international law, as well as the experience and laws of the European Union.

For these reasons, the first step towards the formation of the Common Transport Space, the Customs Union, and the Common Economic Space is the creation of mechanisms to enhance cooperation in international cargo transportation within EurAsEC, upgrade infrastructure and take full advantage of transit potential.

If EurAsEC's air transport potential is fully utilised, this will do more than resolve its transport problems. Besides the positive effect on the region's transport systems, it will also have a multiplier effect on macroeconomic indicators. Ultimately, it will help foster economic integration in EurAsEC and advance the Customs Union.

The development of air cargo traffic in EurAsEC must comply with ICAO Standards and Recommended Practices and should take into account the best practices of many foreign countries that successfully utilise their air transport potential (the European Union, the US and China, among others). In accordance with the priorities for the development of civil aviation and flight safety measures in the CIS approved by the CIS Council of Heads of States on November 22, 2007, the key elements of the strategy for the advancement of national air transport systems and cargo traffic in EurAsEC should be:

- the creation of favourable conditions for the development of air traffic;
- the development of airport and aerodrome infrastructure and equipment;
- the development of the use of airspace and ATM;
- the upgrading of aircraft fleets and improvement of aircraft maintenance;
- the improvement of flight safety and protection of civil aviation from criminal acts;
- the improvement of training and professional development of civil aviation personnel; and
- the improvement of the civil aviation legal framework.

The most important task of EurAsEC member states is to exploit to the fullest possible extent the region's geographical position as the only transit bridge between Europe and Asia and the potential of its transport infrastructure, including airports and air routes.

Conclusion

The main objectives of this report were to analyse the current status of civil aviation in EurAsEC member states, focusing on international air cargo traffic, and to identify the main obstacles which stand in the way of developing air transport links within EurAcEC and the utilisation of its transit potential.

Research showed that EurAsEC member states are in the process of creating the Common Transport Space. Civil aviation accounts for only a very small part of EurAsEC's total cargo traffic. In 2010, airfreight traffic between the countries in the region accounted for 0.03% of all cargo transported (excluding by pipeline).

EurAsEC has significant transit potential. Eurasia is the shortest «transport bridge» between Europe and Asia. However, the region does not exploit its competitive advantages in this regard.

The issues identified in this report are presented only as synopses and additional research is required before recommendations can be made regarding potential socioeconomic, political and other efforts to address the range of problems affecting cooperation between EurAsEC member states.

References

ACI (2007) Global Traffic Forecast 2006–2025 Executive summary.

Airline Business (2010) World's Top Fifty Largest Airlines. *Periodical*.

ATW (2010) World Airline Report 2010. Review. *Air Transport World*.

Benjamin R. (2011) Address to the *China Civil Aviation Development Forum 2011*. Beijing, 11–12 May 2011.

Boeing Corporation (2010) World Air Cargo Forecast 2010–2011.

IATA (2011) Monthly MIS Traffic Briefing (Econ) (www.iata.org).

Belaeronavigatsiya (2011) Belaeronavigatsiya Republican Unitary Enterprise for Air Navigation Services' section at the official website of the Aviation Department at the Ministry of Transport and Communications of the Republic of Belarus (www.avia.by).

State ATM Corporation (2011) Presentation of the State ATM Corporation of the Russian Federation at the 24th session of the Eurasia Coordination Council in Baku, 17–19 May 2011.

Kyrgyzaeronavigatsiya (2011) Presentation of Kyrgyzaeronavigatsiya State Enterprise at the 24th session of the Eurasia Coordination Council in Baku, 17–19 May 2011.

Tajikaeronavigatsiya (2011) Presentation of Tajikaeronavigatsiya State Unitary Enterprise at the 24th session of the Eurasia Coordination Council in Baku, 17–19 May 2011.

EDB (2011a) EDB's official website (www.eabr.org).

EDB (2011b) Prospects for the Development of Road and Rail Infrastructure of EurAsEC Transport Routes. *A Sector Review*. Almaty

EurAsEC (2008) Blueprint for the Formation of EurAsEC's Common Transport Space (approved by EurAsEC Interstate Council on 25 January 2008 at the level of the heads of governments by Resolution 374).

CES (2003) Blueprint for the Formation of the Common Economic Space. Appendix to the Agreement on the Formation of the Common Economic Space. Yalta, 19 September 2003.

ICAO (2010) Annual Report of the Council. Doc 9921. Montreal.

Kazaeronavigatsia (2011) Official website of Kazaeronavigatsia State Unitary Enterprise at the Ministry of Transport and Communications of the Republic of Kazakhstan (www.ans.kz).

Kyrgyzaeronavigatsiya (2011) Official website of Kyrgyzaeronavigatsiya State Enterprise (www.kanservice.com).

Civil Aviation Master Plan (without date) *Civil Aviation Committee at the Ministry of Transport and Communications of the Republic of Kazakhstan*.

Air Transport Review (2011) *New Alliances in the Air Cargo Transportation Sector*. June, No. 120.

Government of the Russian Federation (2008) *Russia's Transport Strategy until 2030* approved by Order 1734-r of the Government of the Russian Federation on 22 November 2008.

Government of the Republic of Kazakhstan (2006) *Transport Strategy of the Republic of Kazakhstan until 2015* approved by Decree 86 of the President of the Republic of Kazakhstan on 11 April 2006.

Belaeronavigatsiya (2011) Presentation of Belaeronavigatsiya Republican Unitary Enterprise for Air Navigation Services at the 24th session of the Eurasia Coordination Council in Baku, 17–19 May 2011.

Rosaviatsiya (2011) Official website of the Federal Air Transport Agency at the Ministry of Transport of the Russian Federation (www.favt.ru).

CIS (2007) Main Areas of the Development of Civil Aviation and Measures to Improve Flight Safety in the CIS Member States. *Approved by Resolution of the CIS Council of Heads of State on 22 November 2007*.

CIS (2008) Priority Areas of Cooperation between the CIS Member States in the Sphere of Transport until 2020. *Approved by Resolution of the CIS Council of Heads of State on 14 November 2008*.

CES (2011) Draft Agreement on Trading in Services and on Investments in the Member States of the Common Economic Space.

Federal Target Programme (2008). Development of the Transport System of the Russian Federation (2010–2015) *Approved by Resolution 377 of the Government of the Russian Federation on 20 May 2008*.

Jens Flottau (2011) New Alliances in the Air Cargo Transportation Sector. *Aviatransportnoye Obozreniye*. June, 120. Available at http://www.ato.ru/content/novye-alyansy-v-gruzovom-sektore-aviaperevozok.

Annex.
EurAsEC International Airports

No.	City/Town (Airport)	Type of operations*	ICAO (IATA) code	Total runways	ICAO category**	Runway dimensions (m) ***
			Belarus			
1	Brest	RNS, AS	UMBB (BQT)	1	–	2620 × 42
2	Vitebsk (Vostochny)	RNS, AS	UMII (VTB)	1	–	2606 × 42
3	Gomel (Pokalubichi)	RNS, AS	UMGG (GME)	1	–	2570 × 42
4	Grodno (Obukhovo)	RNS	UMMG (GNA)	1	–	2560 × 42
5	Minsk–1	RS	UMMM (MHP)	1	–	2000 × 60
6	Minsk–2	RS	UMMS (MSQ)	1	II	3640 × 60
7	Mogilev	RNS	UMMO (MVK)	1	–	2566 × 42
			Kazakhstan			
8	Aktau	RS	UATE (SCO)	1	I	3056 × 60
9	Aktobe	RS	UATT (AKX)	1	–	3097 × 60
10	Almaty	RS	UAAA (ALA)	2	IIIA	4500 × 60
11	Astana	RS	UASS (TSE)	1	IIIA	3500 × 45
12	Atyrau	RS	UATG (GUW)	1	II	3000 × 45
13	Taraz	RS	UADD (DMB)	1	–	...
14	Zhezkazgan	RS	UAKD (DZN)	1	–	2600 × 42
15	Karaganda	RS	UAKK (KGF)	1	–	3600 × 42
16	Kokshetau	RS	UACK (KOV)	1	–	2547×45.5
17	Kostanai	RS	UAUU (KSN)	1	–	2500 × 48
18	Kyzylorda	RS	UAOO (KZO)	1	I	3200 × 42
19	Pavlodar	RS	UASP (PWQ)	1	I	2500 × 42
20	Semey	RS	UASS (PLX)	2	–	3100 × 45
21	Uralsk	RS	UARR (URA)	1	–	2400 × 42
22	Ust Kamenogorsk	RS	UASK (UKK)	1	–	2500 × 42
23	Shymkent	RS	UAII (CIT)	1	I	3300 × 45
			Kyrgyzstan			
24	Bishkek (Manas)	RS	UAFM (FRU)	1	I	4200 × 55
25	Osh	RS	UAFO (OSS)	1	–	2614 × 50
			Russia			
26	Abakan	RS	UNAA (ABA)	1	–	3250 × 45
27	Anadyr (Ugolny)	AS	UHMA (DYR)	1	–	3500 × 60
28	Anapa (Vityazevo)	RS	URKA (AAQ)	1	–	2500 × 42
29	Arkhangelsk (Talagi)	RS	ULAA (ARH)	1	I	2500 × 44
30	Astrakhan	RS	URWA (ASF)	1	–	3200 × 45
31	Barnaul	RS	UNBB (BAX)	1	–	2850 × 50
32	Begishevo (Nizhnekamsk)	RS	UWKE (NBC)	1	–	2506 × 45
33	Belgorod	RS	UUOB (EGO)	1	–	2300 × 42
34	Blagoveschensk (Ignatyevo)	RS	UHBB (BQS)	1	I	2800 × 45

No.	City/Town (Airport)	Type of operations*	ICAO (IATA) code	Total runways	ICAO category**	Runway dimensions (m) ***
35	Bratsk	RS	UIBB (BTK)	1	–	3160 × 60
36	Bryansk	RNS	UUBP (BZK)	1	–	2400 × 42
37	Vladivostok (Knevichi)	RS	UHWW (VVO)	2	II	3500 × 60
38	Vladikavkaz (Beslan)	RS	URMO (OGZ)	1	–	3000 × 45
39	Volgograd (Gumrak)	RS	URWW (VOG)	1	–	2500 × 49
40	Voronezh (Chertovitskoye)	RS	UUOO (VOZ)	1	–	2600 × 49
41	Grozny	RNS	URMG (GRV)	1	I	2500 × 45
42	Yekaterinburg (Koltsovo)	RS	USSS (SVX)	2	I	3026 × 53
43	Ivanovo (Yuzhny)	–	UUBI (IWA)	1	–	2504 × 42
44	Irkutsk	RS	UIII (IKT)	1	I	3564 × 45
45	Kazan	RS	UWKD (KZN)	2	II	3724 × 44
46	Kaliningrad (Khrabrovo)	RS	UMKK (KGD)	1	I	2500 × 45
47	Kemerovo	RS	UNEE (KEJ)	1	I	3200 × 60
48	Kogalym	RNS	USRK (KGP)	1	I	2507 × 42
49	Komsomolsk–on–Amur (Dzemgi)	RNS		1	...	2480 × 80
50	Krasnodar (Pashkovsky)	RS	URKK (KRR)	2	I	3000 × 45
51	Krasnoyarsk (Yemelyanovo)	RS	UNKL (KJA)	1	II	3700 × 60
52	Kursk (Vostochny)	RNS	UUOK (URS)	1	–	2500 × 40
53	Magadan (Sokol)	RS	UHMM (GDX)	1	I	3452 × 60
54	Magnitogorsk	RS	USCM (MQF)	1	–	3250 × 45
55	Makhachkala (Uytash)	RS	URML (MCX)	1	–	2640 × 42
56	Mineralnye Vody	RS	URMM (MRV)	1	I	3900 × 60
57	Moscow (Vnukovo)	RS	UUWW (VKO)	2	II	3060 × 60
58	Moscow (Domodedovo)	RS	UUDD (DME)	2	IIIA	3794 × 53
59	Moscow (Sheremetyevo)	RS	UUEE (SVO)	2	IIIA	3703 × 60
60	Murmansk	RS	ULMM (MMK)	1	I	2500 × 45
61	Nalchik	RS	URMN (NAL)	1	–	2200 × 42
62	Nizhnevartovsk	RS	USNN (NJC)	1	I	3200 × 60
63	Nizhniy Novgorod (Strigino)	RS	UWGG (GOJ)	2	I	2805 × 45
64	Novosibirsk (Tolmachevo)	RS	UNNT (OVB)	2	II	3600 × 70
65	Omsk (Tsentralny)	RS	UNOO (OMS)	1	–	2500 × 80
66	Orenburg	RS	UWOO (REN)	1	I	2501 × 42
67	Orsk	RS	UWOR (OSW)	1	–	2900 × 42
68	Ostafyevo	–	UUMO	1	–	2050 × 48
69	Perm (Bolshoye Savino)	RS	USPP (PEE)	1	I	3200 × 49

No.	City/Town (Airport)	Type of operations*	ICAO (IATA) code	Total runways	ICAO category**	Runway dimensions (m) ***
70	Petrozavodsk (Besovets)	RNS	ULPB (PES)	1	–	2500 × 48
71	Petropavlovsk Kamchatsky (Yelizovo)	RS	UHPP (PKC)	3	I	3400 × 60
72	Provideniya Bay	AS	UHMD (PVS)	1	–	2000 × 52
73	Pskov (Kresty)	RS	ULOO (PKV)	1	–	2514 × 44
74	Ramenskoye	...	UUBW	2	...	5402 × 120
75	Rostov-on-Don	RS	URRR (ROV)	1	II	2500 × 45
76	Samara (Kurumoch)	RS	UWWW (KUF)	2	I	3001 × 45
77	St. Petersburg (Pulkovo)	RS	ULLI (LED)	2	IIIA	3782 × 60
78	Saratov (Tsentralny)	RS	UWSS (RTW)	1	–	2220 × 42
79	Sochi	RS	URSS (AER)	2	II	2850 × 50
80	Stavropol (Shpakovskoye)	RS	URMT (STW)	1	–	2600 × 48
81	Surgut	RS	USRR (SGC)	1	I	2780 × 45
82	Syktyvkar	RS	UUYY (SCW)	1	–	2500 × 50
83	Tomsk (Bogashevo)	RNS	UNTT (TOF)	1	–	2500 × 50
84	Tyumen (Roschino)	RS	USTR (TJM)	1	I	3000 × 45
85	Ulan-Ude (Baikal)	RS	UIUU (UUD)	1	I	2997 × 45
86	Ulyanovsk (Vostochny)	RS	UWLW (ULY)	1	I	5100 × 106
87	Ufa	RS	UWUU (UFA)	2	II	3761 × 60
88	Khabarovsk (Novy)	RS	UHHH (KHV)	2	II	4000 × 60
89	Khanty-Mansiysk	RS	USHH (HMA)	1	I	2800 × 45
90	Cheboksary	RNS	UWKS (CSY)	1	–	2512 × 49
91	Chelyabinsk	RS	USCC (CEK)	1	I	3200 × 60
92	Cherepovets	RS	ULWC (CEE)	1	–	2523 × 42
93	Chita (Kadala)	RNS	UIAA (HTA)	1	–	2800 × 56
94	Elista	RS	URWI (ESL)	1	–	2200 × 90
95	Yuzhno-Sakhalinsk (Khomutovo)	RS	UHSS (UUS)	1	I	3400 × 45
96	Yakutsk	RS	UEEE (YKS)	1	II	3400 × 60
97	Yaroslavl (Tunoshna)	RNS	UUDL (IAR)	1	I	3000 × 44
			Tajikistan			
98	Dushanbe	AS	UTDD (DYU)	1	I	3100 × 45
99	Khujand	–	UTDL (LBD)	1	–	–

Notes: * RS – scheduled air transport, regular use; RNS – non-scheduled air transport, regular use; AS – scheduled air transport, alternate use; «—» – no information available. * * ICAO weather minimums category (the category of the best runway if there are several runways). * * *The length and width of the largest runway if there are several runways.

Journal of Eurasian Economic Integration

The Journal of Eurasian Economic Integration is a quarterly academic and analytical journal published in Russian by the Eurasian Development Bank. The members of Editorial board and Advisory council are distinguished academicians, practitioners and experts in regional integration. Eurasian Economic Integration brings together academic and analytical articles, reviews of books relating to regional integration, interviews and quarterly chronicles of regional integration. With its focus on economics, the journal is a rich source of material addressing a broad range of issues specific to Eurasian integration. These include integration theory and its relevance to the development context; economic integration (trade, investment, financial institutions); institutional integration; cooperation issues in the post–Soviet space; and international experience of regional integration. The first issue was published in the third quarter of 2008.

Requirements for submissions. Papers should be sent by e–mail to editor@eabr.org for blind review. There are no strict limitations on the length of articles. However, the Editorial Board recommends authors to adhere to 6,000–8,000 words or 30,000–40,000 characters. In addition to the main text, authors must supply a brief author(s)' biography (100–150 words), executive summary (100–150 words) and bibliography. These materials must be attached in a separate file.

EDB Eurasian Integration Yearbook

Eurasian Integration Yearbook publishes a wide range of articles and other materials in English on theory and practical aspects of Eurasian integration. The major part of the annual Yearbook consists of English versions of selected articles published in the Journal of Eurasian Economic Integration and other analytical publications of EDB. These are supplemented by integration chronicles for the respective year. The Yearbook improves access of the world community to the best papers on various issues of regional integration published in Russian. Apart from papers published in the Journal of Eurasian Economic Integration, papers written specifically for the Yearbook are also welcome (submission in English or Russian).

Sector reports

The EDB's Analytical Department publishes industry and country reports. Electronic versions are available at: http://www.eabr.org/rus/publications/AnalyticalReports/.

Consultancy

The Bank provides consultancy services to its strategic partners and clients. The Bank's Strategy and Research Department has in–house expert resources and can involve specialists from other departments, such as project managers, corporate financing, treasury, legal department. External experts from the extensive pool of the CIS countries' experts could be mobilised to work on consultancy projects.

Areas of expertise:

- Analysis of a current status and dynamics of development in selected sectors in the member states of the Bank and other EurAsEC countries;
- Financial markets' analytical reviews in the EurAsEC countries;
- Economic and legal analysis of integration agreements and institutions in the Eurasian space;
- Development banks' operations and activities in the CIS countries and issues of cooperation.

Contacts

Vladimir Yasinskiy
Member of the Executive Board,
Head of Strategy and Research
Department, EDB
E–mail: yasinskiy_va@eabr.org
Telephone: +7 (727) 244 68 75

Evgeny Vinokurov
Ph.D., Director of the Centre for
Integration Studies, EDB
E–mail: vinokurov_ey@eabr.org
Telephone: 8 (812) 334 24 22,
ext. 2423

Ella Baybikova
Deputy Head of Strategy and Research
Department – Head of Strategic Planning
Unit, EDB
E–mail: baybikova_er@eabr.org
Telephone: +7 (727) 244 40 44, ext. 6908

ISBN 978-601-7151-23-2