**Riga Technical University**

**Faculty of Engineering Economics**

***Riga international airport***

Riga 2004

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***About Riga International Airport.***

During the past century Latvian aviation, like the country itself, experienced a number of fateful turning points. The former province of Russia, which won independence after the 1st World War, established small air force and civil aviation, but lost everything due to the Soviet occupation in the summer of 1940. Independence of the country was regained in August 1991.

*Riga* airport was built in the present location in October 1974. However, it remained unknown for the world operating as the local airport within the former USSR. Only in 1991 Riga destination appeared in the timetables of well-known Western airlines - first SAS, then Lufthansa.

The capital of Latvia developed historically into the regional centre of the Baltic’s. It has been the intersection of major land and sea routes since long ago. Nowadays the number of air routes keeps increasing. Riga is the biggest city of the Baltic States. *Riga* airport has the largest number of air passengers handled during the past 10 years.

The number of passengers has doubled since 1993. Copenhagen, Stockholm, London, Helsinki, Frankfurt, Moscow, Prague and Vienna routes have the largest number of passengers. Furthermore, direct flights link the capital of Latvia with Honk-Kong, Kiev, Tallinn, Tel Aviv, Vilnius and Warsaw.

During this period Riga airport has implemented several important modernization and expansion projects. The lounge for business class passengers and VIP centre was opened, and Flight Information Display System (FIDS) and Common Use Terminal Equipment System (CUTE) has been installed.

However, chief of company consider that the airport development and modernization should be at least a step ahead of passenger growth. He forecast that by stable economic development of Latvia the airport passenger numbers will grow considerably in the new millennium. The former terminal was not spacious enough and could not provide full comfort for passengers. Therefore major reconstruction started on the eve of the new millennium by pulling down the old one-level arrival area and by constructing a new two-level building 5 times exceeding the size of the former one. The former departure area was reconstructed next and a new pier with 5 passenger bridges was built instead. Altogether terminal was extended by more than 10 thousand square meters and 30 million USD were invested in the implementation of the project.

The reconstruction permitted to expand considerably the duty-free trade centre. Our duty-free shops offering souvenirs, perfumery, cosmetics, jeweller, watches, accessories, sweets, wines and spirits, tobacco goods, sportswear and toys are very popular. You can purchase both Latvian products as well as goods offered by famous international producers. Every departing passenger purchases goods for average value of 18 USD.

New bars and cafes have been opened.

Spacious shopping halls, bars and cafes fit well in the new airport interior that includes the elements of glass, metal and natural materials, like wood, stone and others forming Riga airport image of today.

The main idea of the new design was to construct spacious, light and, which is most important, transparent rooms for passengers to make one feel more and safe.

Geometry of the new building facades differs from the one associated with Riga airport till now. The glazed rhombic prisms laid in various planes encircle the new constructions. The facades resemble crystalline ice compositions arousing northern feelings. Harmony of grey and blue colours is dominant in the interior.

A modern Building Management System (BMS), air conditioning system, electric facilities and security equipment have been installed in the new building. Handling of persons with special needs has improved. Riga airport has succeeded in solving the most complicated problem of any airport design an optimum balance was reached among architectural, functional and commercial aspects.

Everything we have achieved has been done with the purpose of taking care of our passengers' convenience, so that a person arriving in Riga has a friendly environment and receives services of the highest quality. The better impressions of the airport, the more comfortable passengers feel while travelling.

Services will be further improved by considering expectations of our passengers and guests, who have filled out questionnaires available at special stands in the terminal. We look forward to receive comments on the recently introduced airport tour programmed and art exhibitions at the airport. Passenger loyalty programmed providing discounts, presents and special service for regular passengers has been launched.

Providing passenger service quality and variety *Riga International Airport* pays special attention to ground handling level. The airport provides a full range of the required services.

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In 1994 *Strabag International GmbH* and *Daimler Benz Aerospace AG* carried out the first airport reconstruction works involving runway rehabilitation and the replacement of lighting system. Today along with terminal reconstruction taxiways and the central apron of 13 hectares have been reconstructed.

The airport transport and emergency systems have also been gradually improved. Transport and equipment from the Soviet era has been replaced with new *Neoplan*, *Vanhool* and *Mercedes* buses, *Scmitz* airport sweeper, *Volkswagen* service cars and *Sides* fire-fighting vehicles.

The new passenger boarding bridges are equipped with modern aircraft technical service systems. The latest technologies ensure both heating and conditioning of the aircraft flight deck. Riga airport provides a complete range of ground handling services. The carrier Air Baltic also performs separate operations.

An acknowledgement of compliance with high-quality requirements is ISO 9001 Quality Certificate issued by the *British Standards Institute* auditors.

***Development of air traffic.***

2002 was one of the hardest years ever for the aviation industry. 11 September 2001 shocked the USA and caused a crisis in the world’s aviation business after continuous and dynamic development of more than half a century. In all the developed countries of the world passenger figures collapsed and the downward trend also continued in to 2002. Altogether, passenger figures dropped by around 5 million in Europe and by 35 million in North America compared with 2001.

“Riga” airport was also affected by the consequences of the crisis. First, we expensed a substantial fall in traffic to the USA. In August 2001 around 3.5 thousand passengers departed the USA from Riga, but in the months following the terrorist attacks of 11 September passenger figures decreased by more than 60% causing an important loss for the airport. Despite the downward trend, the report years were profitable. The important things are that we have not lost passengers, as have other airports worldwide.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ***Month*** | ***2000*** | ***2001*** | ***2002*** | ***2002/2001(%)*** |
| 1 | 1 291 | 1 340 | 1 299 | -3.1 |
| 2 | 1 349 | 1 338 | 1 290 | -3.6 |
| 3 | 1 516 | 1 545 | 1 572 | 1.7 |
| 4 | 1 443 | 1 493 | 1 699 | 13.8 |
| 5 | 1 744 | 1 728 | 1 680 | -2.8 |
| 6 | 1 600 | 1 783 | 1 654 | -7.2 |
| 7 | 1 464 | 1 622 | 1 694 | 4.4 |
| 8 | 1 650 | 1 839 | 1 747 | -5.0 |
| 9 | 1 602 | 1 694 | 1 623 | -4.2 |
| 10 | 1 645 | 1 682 | 1 653 | -1.7 |
| 11 | 1 479 | 1 540 | 1 430 | -7.1 |
| 12 | 1 287 | 1 306 | 1 335 | 2.2 |
| ***Total:*** | **18 070** | **18 910** | **18 676** | **-1.2** |

Table 1. **Aircraft movements**

Passenger figures exceed 600 000, i.e. by 1.7% more than in 2001 for the second consecutive year. Altogether, the airport handled 18 676 flights falling behind the previous report year by 1.2% due to “Austrian Airlines”, “Estonian Air” and the Swedish airline “Trygg-Flyg” deceasing flights to Riga.

For the third year air cargo transportation has grown considerably with turnover exceeding 6 000 tons for the first time, i.e. by 26.3% over the previous year. Cargo transportation import (78.2%) still significantly exceeds export (21.8%).

To achieve these results the airport staff had to be more purposeful, determined and competent than in the previous report period.

12 carriers including “Air Baltic”, “Aeroflot”, “Austrian Airlines”, “Belavia”, “British Airways”, “ČSA”, “Estonian Air”, “Finnair”, “Latpass Airlines”, “LOT”, “Lufthansa” and “Trygg-Flyg” provided scheduled passenger flights from “Riga” airport in 2002.

Scheduled direct flights linked Riga with 16 European cities including Berlin, Frankfurt, Helsinki, Jonkoping, Kiev, Copenhagen, London, Moscow, Minsk, Prague, Stockholm, Tallinn, Tel Aviv, Warsaw, Vilnius and Vienna.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ***Month*** | ***2000*** | ***2001*** | ***2002*** | ***2002/2001(%)*** |
| 1 | 302 | 346 | 502 | 45.1 |
| 2 | 323 | 371 | 473 | 27.5 |
| 3 | 400 | 449 | 559 | 24.5 |
| 4 | 346 | 421 | 561 | 33.3 |
| 5 | 359 | 485 | 379 | -21.9 |
| 6 | 350 | 446 | 428 | -4.0 |
| 7 | 346 | 429 | 354 | -17.5 |
| 8 | 424 | 438 | 403 | -8.0 |
| 9 | 430 | 395 | 546 | 38.2 |
| 10 | 507 | 451 | 685 | 51.9 |
| 11 | 386 | 529 | 573 | 8.3 |
| 12 | 485 | 449 | 1 117 | 148.8 |
| ***Total*** | **4 658** | **5 209** | **6 580** | **26.3** |

Table 2. **Cargo transportation (t)**

***Major passenger flows and routes of scheduled flights.***

In 2002 the flight map changed slightly with “Air Baltic” exploring new destinations and starting flights to Berlin in May and later to Vienna. Additionally, “Air Baltic” resumed flights to Moscow, Warsaw and Prague, which had been suspended as unprofitable the previous years. Thus, the Latvian aviation market was considerably divided. “Air Baltic” improved its position, but “Austrian Airlines” discontinued flights from Vienna to Riga due to the imposed flight reduction. In comparison with the last year, the dynamics of passenger growth for the above destinations dropped considerably by 885 on the Warsaw route, 22.8% on the Vienna route and 17.3% on the Moscow route.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ***Month*** | ***2000*** | ***2001*** | ***2002*** | ***2002/2001(%)*** |
| 1 | 35 235 | 38 681 | 38 377 | -0.8 |
| 2 | 35 637 | 38 243 | 37 477 | -2.0 |
| 3 | 45 454 | 46 510 | 45 393 | -2.4 |
| 4 | 45 087 | 48 154 | 48 420 | 0.6 |
| 5 | 54 308 | 57 248 | 55 802 | -2.5 |
| 6 | 56 017 | 68 036 | 63 980 | -6.0 |
| 7 | 53 123 | 61 247 | 62 114 | 1.4 |
| 8 | 56 140 | 67 041 | 62 485 | -6.8 |
| 9 | 55 810 | 60 879 | 63 294 | 4.0 |
| 10 | 51 645 | 51 872 | 61 270 | 18.1 |
| 11 | 44 804 | 43 924 | 49 357 | 12.4 |
| 12 | 41 096 | 40 812 | 45 353 | 11.1 |
| ***Total*** | **574 356** | **622 647** | **633 322** | **1.7** |

Table 3. **Passenger movements**

In 2002 73 passengers out of every 100 handled in Riga (including transit) travelled to or from Western Europe. Altogether scheduled flights to Western Europe were responsible for the growth of passengers figures (almost 11 000). Berlin, with the highest passengers growth rate ranks first among the cities of Western Europe (it should be mentioned, however, that in 2001 there were no scheduled flights on this route); followed by London with 6.9% and Frankfurt with 6.4%. However, there is an exception. For the first time passengers figures on the Helsinki route have dropped by almost 3 000 or 3.9% in comparison with the last year. Nevertheless, Helsinki ranks 2 nd on the list of the most popular destinations. For the second successive year passenger figures on the Stockholm route have dropped sharply by almost 14 000 or 21%. Accordingly, a Stockholm rank 6th instead of the previous 3rd, but the Copenhagen has constantly been number one since 1996, despite a passenger growth rate, which has slowed down on the route.

In 2002 passenger figures for Eastern and Central Europe have grown slightly. Some destinations have faced radical changes. As in previous years, passengers figures decreased by 17.3% on the Moscow route. For the second year after resuming scheduled flights on the Tallinn route passenger figures went down by 11.4%. Passengers figures on the Prague route increased significantly by 27.7% for the second year. It should be underlined that the Prague route has the highest absolute growth rate, i.e. by 13 000 passengers more and even surpasses the Copenhagen route. Accordingly, Prague shows a very convincing growth and ranks 3rd instead of being 6th in 2001 on the list of the most popular destinations. The success allowed “ČSA” to pull ahead of such major airlines as “British Airways”, “Lufthansa” and “Finnair”. A couple of years ago such a forecast would have seemed unbelievable. “ČSA” passengers figures have almost tripled compared with 1999 and almost doubled compared with 2000.

Only three of the carriers providing scheduled flights to Riga during the report year have carried fewer passengers than in 2001, i.e. “Aeroflot” with 29.6%, “Finnair” with 16.3% and “LOT” with 2.7%. These airlines have reduced flight frequency by 35.8%, 2.4% and 1.7% respectively. “Air Baltic” has carried the majority of passengers to and from Riga, i.e. 43% of the total number of passengers. “ČSA” with 10% of passengers handled at “Riga” airport ranks 2nd. As in 2001, “British Airways” with 9% ranks 3rd, “Lufthansa” with 8% ranks 4th, “Finnair” with 8% is 5th, but “Latcharter” with 7% is 6th.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| City | 2000 | 2001 | 2002 | 2002/2001(%) |
| Copenhagen | 137 895 | 152 109 | 152 109 | 3.0 |
| Helsinki | 65 670 | 71 712 | 71 712 | -3.9 |
| Prague | 34 741 | 50 084 | 50 084 | 27.7 |
| Frankfurt | 51 669 | 54 715 | 54 715 | 6.4 |
| London | 50 115 | 53 274 | 53 274 | 6.9 |
| Stockholm | 71 145 | 65 094 | 65 094 | -21.0 |
| Moscow | 44 194 | 41 810 | 41 810 | -17.3 |
| Warsaw | 10 349 | 19 687 | 19 687 | 1.7 |
| Vienna | 20 404 | 20 567 | 20 567 | -22.8 |
| Kiev | 11 087 | 11 231 | 11 231 | 8.2 |
| Tallinn | 14 066 | 11 086 | 11 086 | -11.4 |
| Mugla | 2 778 | 3 186 | 3 186 | 2.3x |
| Berlin |  | 391 | 391 | 18.0x |
| Vilnius | 9 821 | 6 680 | 6 680 | -3.1 |
| Barcelona | 3 514 | 2 497 | 2 497 | 1.6x |
| Heraklion | 2 232 | 1 115 | 1 115 | -3.1 |
| Others | 36 374 | 57 409 | 56 294 |  |
| Total | 574 356 | 622 647 | 622 647 | 1.7 |

Table 4. **Passenger movements per city**

***Air cargo***

In 2002 the handled cargo volume has increased by more than 1 300 tons when compared to the previous year. Riga International Airport has never faced such an important increase in cargo volume before.

Of all the carries providing scheduled flights, “ČSA” achieved the highest growth of both cargo volume and passengers figures; while “Aeroflot” had the highest rate of cargo volume. Contrary to passenger figures, cargo volume dropped by 20.9% for “British Airways” and by 10.5% for “Lufthansa” for the second year. Cargo volume also slightly decreased also for “Finnair”. Nevertheless, “Finnair” is the major air cargo carrier in Riga with 20% of the total cargo volume handled at the airport ((25% in 2001); followed by “Air Baltic” with 16% (21% in 2001); “SAS” with 15% (18% in 2002); “ČSA” with 7% (6% in 2001); “Aeroflot” with 6% (5% in 2001); “Lufthansa” with 5% (7% in 2001); and “British Airways” with 2% in 2001).

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ***Airline*** | ***2000*** | ***2001*** | ***2002*** | ***2002/2001(%)*** |
| Finnair | 934 | 1 323 | 1 308 | -1.1 |
| Air Baltic | 1 041 | 1 099 | 1 045 | -4.9 |
| SAS | 845 | 952 | 971 | 2.0 |
| ČSA | 249 | 305 | 429 | 40.7 |
| Aeroflot | 209 | 277 | 394 | 42.2 |
| Lufthansa | 453 | 389 | 348 | -10.5 |
| British Airways | 304 | 191 | 151 | -20.9 |
| Concors |  | 137 | 145 | 5.6 |
| Air Polonia |  | 7 | 117 | 16.7x |
| LOT | 112 | 112 | 115 | 2.7 |
| Austrian Airlines | 36 | 36 | 23 | -36.0 |
| White Eagle Aviation | 190 | 101 |  |  |
| Others | 210 | 280 | 1 534 |  |
| ***Total*** | **4 658** | **5 209** | **6 580** | 26.3 |

Table 5. **Cargo transportation (t)**

***Modernization and extension of the airport***

During the report year attention was paid to the reinforcement and technical upgrading of aviation security measures. “Riga” Airport investment in aviation security has always been balanced. In view of the 11th September terrorist attacks the airport carried out unscheduled activities to reinforce security, transferring a major part of the investment initially planned for infrastructure development to security.

In the middle of 2002 cargo X-ray equipment was obtained and installed. Latvia is a member of European Aviation Conference (ECAC), which set 1 January 2003 the deadline for the introduction of the 100% screening of checked baggage at international airports. If this requirement had not been met, the aircraft departing from Riga would have faced long handling delays at other European airports; while all the baggage arriving from “Riga” airport would have been subject to time-consuming security controls. At the end of 2002 “Riga” airport launched automatic baggage screening equipment- which is a part of the common baggage security control system- to provide maximum safety and convenience for passengers. The producer of the equipment is the well-known company ‘Heimann”. The system facilitates three-level baggage control. The automatic baggage screening equipment has the capacity to process 1 200 baggage units per hour. Accordingly, two systems facilitate security control of 2 400 baggage units per hour. The installed equipment ensures security control fully compliant with the EU requirements in the field of aviation security. In addition to baggage control equipment, a computer room was arranged and 47 airport employees were trained. Altogether, security equipment and the reconstruction of baggage conveyors cost the airport 1.6 million EUR.

To reinforce security in the major areas and facilities at the airport, the aircraft handling area and the technical area of the airfield was fenced off and a checkpoint was arranged.

During the report year the 2nd and 3rd floor reconstruction of the passenger terminal continued. Airline agencies moved to comfortable offices and after the reconstruction the 3rd level of passenger terminal was opened. After many years the restaurant run by the well-known Latvian company “Lido” has been opened at the airport. The airport guests have an opportunity both to enjoy the “Lido” menu and have a panoramic view over the airfield, which was impossible for a long time due to the reconstruction. The terminal has also become friendlier to passengers with special needs, as the lift facilitates access to any level of the terminal.

In the winter season airfield maintenance requires extra effort and costs. It is extremely important to ensure the airport operation irrespective of the weather and provide all flights according to the flight schedule. Therefore the airport has upgraded transport and emergency systems by obtaining two multi-functional airfield maintenance vehicles produced by the well-known company “Marcel Boschung AG”. The vehicles remove snow from runway, taxiways and apron areas and provide anti-icing of surfaces. In the summer season the vehicles are used to collect garbage and dust.

Equipment for the treatment of land amelioration systems, loading and digging was obtained. An airfield area of 10 ha was cleared of underbrush, thus increasing ground capacity.

“Riga” airports is the second of the European airports having introduced the passenger loyalty programme N.O.V.A. to the benefit of our passengers, despite the fact that it does not bring the airport any extra profit. However, the programme enables the airport to keep in touch with passengers regularly and not only while they are travelling.

***Financial performance***

SJSC Riga International Airport ended the financial year 2002 with 202.4 thousand LVL profit. Aviation services with 6 242 100 LVL or 75% account for the major revenue share of economic activity. Revenue share of other services increased year on the year and amounted to 2 033 400 LVL in 2002.

Runway and airport infrastructure maintenance, salaries, and credit interest payments comprise the major expenditure share of economic activity.

In 2002 the airport continued to invest resources in the development of infrastructure and purchasing of runway maintenance equipment. One of the main investments was purchasing of a new automatic baggage screening to provide maximum safety for passengers.

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