

PERFORMANCE ANALYSIS OF INTERNATIONAL AIRPORTS SLOVAK REPUBLIC

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This paper provides an analysis of airport performance Slovak Republic, namely MR Stefanik Airport in Bratislava. The airport is the place where the user of aviation in the broadest range of services meets the various entities that are involved in this process. Detailed analyzes the operating performance of the airport, according to the passenger, freight and other transportation. The following are design measures and goals for the future.

K e y w o r d s: airport capacity, efficiency, effectiveness, MR Stefanik Airport ...

1 INTRODUCTION

To airport operates systems must be constructed runways, mobile tracks, manoeuvring and parking areas and buildings, fire and rescue services, equipment maintenance and repair of aircraft and ground handling. Proper layout of the airport leads you to the correct strategy, leading to the production of profit, which is responsible for airport management. Analysis airport consists of theoretical and analytical part. Theoretical approaches us the performance of the airport. The main topic of the analytical part is closer specification MR Stefanik Airport in Bratislava, analysis with the help of graphs and tables, and subsequent comparison, a possible proposal to improve the operation of the airport, vision for the future.

2 GENERAL INFORMATION

The organization of air traffic around the world can watch the four basic elements of its infrastructure: including among airports, air navigation services, air carriers, regulatory system . From the point of view of transport airport to fulfill the following functions :

- start and end points of the air transport process,
- transfer between land and air transport,
- Point -stop routes (transit) and transfer/translation between Airlines (transfer).

Globally, we can divide the international airports and regional airports .

International airports - intercontinental hub airports for s long-haul, are linked to the use of alliances air carriers have a high volume of traffic, high saturation capacity is important, but also

a network of regional routes, success is mastering process with the transfer of passengers for the transfer and the minimum time required for this (London Heathrow, Paris Charles de Gaulle, Frankfurt, Amsterdam). Cleared millions of travellers, financial stability is high, due to the strong domestic market and strong domestic carriers. Airports (hub - s), which are not located on a strong domestic market - a critical link with domestic carriers.

Regional airports - areas where previously was a high concentration of demand and for which the onset of LC transport is new impetus for development (Hahn, Liege).

The airport is assessed by individual units: the design, operational, social, ecological, economic, political, and economic unit. It is now obvious that part of aviation air navigation services, which serve to facilitate the safe and orderly movement of aircraft from running engines at the airport after engine shutdown at the destination. Air carrier for the purpose of transport of passengers, cargo and mail for remuneration. The aim of the regulation is to give binding orders to implement and maintain the desired order. In international aviation regulatory measures have three levels: national, bilateral, plurilateral, which are made by the State in the exercise of its right of sovereignty over the territory .

Nationally airport has to some extent a natural monopoly. Carriers operating in each market in a competitive environment, which can vary their intensity . In each part of air transport infrastructure is be charged different forms of economic dependent regulation of the degree of dominance which the competent bodies to achieve.

3 OPERATIONAL CAPACITIES AND PERMEABILITY AIRPORT

Airport capacity is determined by the ability of the individual airport facilities, in cooperation with other resources and services the airport, check in regularly peak traffic flows at certain intervals specified in the (agreed) level of service quality. As the capacity of any equipment or services is less than the capacity required by the competent transport stream, then there will be a delay.

Airport capacity is a constant variable. Varies depending on a number of characteristics, including the use of runways, types of aircraft operating, the ratio of take-offs and landings. Also depends on the climatic conditions and regulatory requirements in accordance with a set of other air regulations defined conditions. Affects the capacity of the airport runway number, their relative positions, the number and nature of taxiways and places for passengers boarding. A very important role also plays the type used in ground equipment, such as a device for precision approach landing, radar and communications equipment and the like. Beyond the capacity of the runway, which usually indicates the number of aircraft movements per year is the second significant variable terminal capacity for passenger check, respectively. Cargo capacity terminal clearance air freight. Major impact on the capacity of a structure and permeability of the airspace around the airport used in relation to the airport runway system. For the analysis of planned airspace structures are everywhere alongside analytical methods is very useful simulation models.

Fixed level of service terminal must provide the necessary comfort to passengers while waiting, check or served by. An important criterion is the amount of space needed to ensure the necessary comfort while respecting the economic level of the cost to build and operate the terminal. For the effective operation of the terminal is determined capacity parking in front of terminal, departure and arrival of the terminal.

4 PERFORMANCE OF AIRPORTS

The airport is among the operators, because its operation is evaluated in terms of operational and economic indicators. These indicators are used to manage the further development of the airport and its successful evaluation. The basis of the system of quality indicators is accurate, error-free and detailed statistics on the performance of the airport. Key performance indicators are: number of aircraft movements, number of tonnes of landings, number of passengers, and the number of tonnes of cargo handled. Economic indicators can be divided into qualitative and value. Qualitative indicators are those which express the degree of satisfying consumer needs. One of the primary attribute that assesses the quality of passenger transport, punctuality, compliance timetable. At Value indicators include :

- average yield of airport charges per passenger
- income from trading activities per passenger ,
- income from trading activities to drive the rented area ,
- income from car parks per passenger ,
- management and profitability .

5 OPTIONS INCREASE EFFICIENCIES AIRPORT

Like any business operator and airport wants to have a stable position in the market. That it is only in the region, he is the role of natural monopoly and has over other operators operating in transport big advantage. But to a specific airport maintain its position must constantly increase the efficiency of its economy. Increase the economic efficiency of airports can be especially by:

- defend the quality certificates,
- obtain additional certificates,
- accurate and consistent planning of airport operations,
- consistent implementation and use of marketing in the operation of aerodromes,
- optimization of cost structures with a positive impact on economic performance,
- implement a Safety Management System,
- Watching a business plan with a positive result, its comparison with the facts , updating and

application changes and measures for its completion. To the category of policy measures in the possibility of increasing performance, throughput and capacity of airports to maximize the efficiency of airports include:

- 1) consistent execution and implementation of a binding investment plan ,
- 2) the construction of new terminals to increase the volume of passengers handled ,
- 3) construction and expansion of APN ,
- 4) construction and expansion of taxiway ,
- 5) construction of additional runways.

6 INTERNATIONAL AIRPORT M.R.STEFANIKA BRATISLAVA



General information :

Company Name : MR Stefanik Airport - Airport Bratislava , as (BTS)

IATA / ICAO code : BTS / LZIB

City : Bratislava

Distance and direction from the center:

9 km northeast

Apron / Terminal 143 000 m² / 48 545 m²

Datum airport : 481012 north , east 0171246

Altitude / transaction Height: 133 m / 1 524 m

Magnetic variation : 4 ° E (2010)

Climate: average temperature in ° C

(January min . -4 , Max . +1)

(July min . +15 , Max . +27)

Opening hours: 24 hours

Track system : track length

13-31 3190 mx 45 m (CAT III A LVP)

04-22 runway length 2,900 m x 60 m (CAT I).

Airport runway system consists of two perpendicular - takeoff runways and taxiways that allow landing and subsequent movement of almost all transport aircraft - from the smallest, single, to the Boeing 747

Bratislava Airport operates the terminal complex consisting of three following terminals:

- new terminal, which was for the public as a whole, opened in July 2012 (arrivals and departures)
- Terminal B - intended for arrivals and departures outside the Schengen zone,
- Terminal C.

Organisational Structure



Like any company, as did airports are ranked according to performance indicators. MR Stefanik Airport in Bratislava is also evaluated according to the operational performances that show how farmers whether a company is profitable or not. Balance between commercial and operational factors should be transported to the profitability equation, ie Unlike the sum of income and expenses must equal profit.

In terms of operating performance is evaluated passenger, freight transport and aircraft movements. Is taken into account, whether they are international transportation, domestic, regular, irregular, or whether it is the other and special (exceptional) transport.

Development of passenger transport in the years 2004 - 2013 we characterized the table below No. 1 which contains the number of passengers for the year:

2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
893 614	1 326 493	1 937 642	2 024 142	2 218 545	1 710 018	1 665 704	1 585 064	1 416 010	1 373 077

Development of freight transport in the years 2004 - 2013 we characterized the table below No.2 in which the number of tonnes transported cargo for the year:

2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
6 972	3 633	5 055	1 969	6 961	11 903	17 717	20 596	22 571	21 271

Development of aircraft movements in the years 2004 - 2013 we characterized the table below No. 3 in which the number of aircraft movements for the year:

2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
27 133	30 388	31 148	31 599	34 874	29 481	27 220	25 358	23 412	22 935

The above table shows that the Airport M. r. Stefanik in Bratislava has various aspects of a downward trend.

7 DESIGN MEASURES AND OBJECTIVES FOR THE FUTURE

Finally, for the MR Stefanik Airport in Bratislava proposed vision and goal. The vision of the airport company should operate such an airport should meet an important transport hub in the field of air transport of passengers and goods, provide quality services and facilitate tourism in the Slovak Republic.

The company's aim should be sustainable growth in air passenger and cargo transport, strengthening the position of the airport and the long-term growth and development and performance values airport company, to ensure participation in the

processes of preparing the airport for a long-term lease to a strategic partner in accordance with the decision of the Government of the Slovak Republic, the employment to fulfil the role of a major stable employer.

8 CONCLUSION

Impact of the global economic and financial crisis impact on airport operations worldwide. It should be noted, however, that aviation does not unlike other forms of public transport normally provided state support and therefore tends to fluctuations

caused by economic cycles. Although today airports suffer a setback the economic crisis, in the future, thanks to the restoration should represent a major transport hub.

The key success of all businesses is very precise and well developed strategy. The main principle is that it must be flexible. Currently on the market there are many companies that awaits only a tiny flaw competition, which now uses this error. It becomes even aviation company, it is a struggle for the customer and it is good to be prepared and have an experienced management team. At present, it appears that survive only those airports and carriers that will streamline their internal processes and products consistently reduce costs and increase the use of information technology .

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