

BUSINESS AVIATION IN EUROPE

Michal Pazourek¹

Summary: Business Aviation remains unexplored and little attention is paid to its operation. This article is revealing some important facts about it and making a comparison with airlines' traffic characteristics.

Key words: Air Transportation, Airline, Airport, Business Aviation, Europe

INTRODUCTION

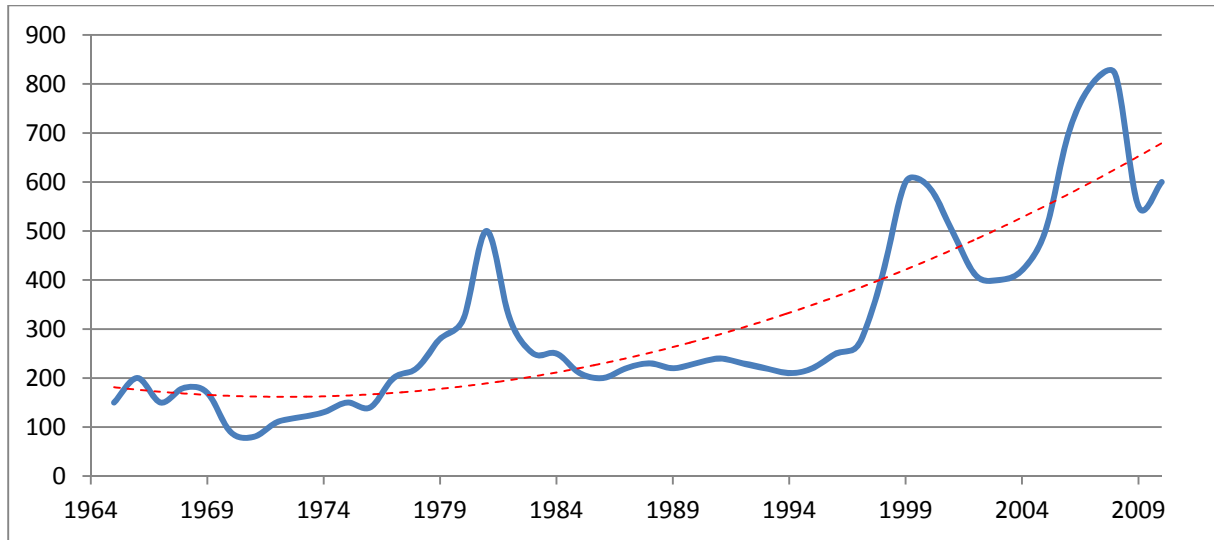
Business aviation comes along with the development of civil aviation from its very beginning. Logically enough it lagged behind the airlines at the start but started to grow steadily and now reaches an important role in Economies of companies and states worldwide. The understanding of Business Aviation is crucial but still different across countries. This paper has for aim to analyze the situation of Business Aviation in Europe, compare it with the Airlines traffic and look for advantages it brings to its users.

1. DEFINITION OF BUSINESS AVIATION

To define Business Aviation, many approaches and techniques may used. It may be considered according to aircraft size, capacity or range, regularity of service, passengers' status or legal status. For comparison purposes it is crucial to fix only limited numbers of factors. For the purposes of this papers "on the demand operations of aircraft in VIP configuration with increased comfort and extra on board services" definition will be used. With latest trends of converting large airliners into VIP aircraft such as B737 BBJ and A320 ACJ the capacity and size of aircraft will no longer be considered. Business aviation forms a specific part of Air Transportation comprising every category of aircraft ranging from small turbo-props to heavy jets. The aircraft range criterion is also becoming less important in definition of what is Business Aviation. Nowadays long-haul and ultra-long haul bizzjets are in regular use with endurance reaching 13h and more. In addition, every time more streamlined aircraft are being developed. The phenomenon of Business Aviation started to be emerging when the need of passengers for air transport exceeded the possibilities of the market to reply to it. It is very sensible to world economy but on the long term is it on the growth as depicted on the figure 1. The community of operators also includes very small ones with one or two aircraft till the multi-types fleets. Several reasons lead passengers to use Business Aviation. Some of the passengers use it for business, others for leisure. Whichever of the two, it brings with it several advantages which are described in the table 1. The entities using Business Aviation also differ from one case to another. Although having "Business" in

¹ Ing. Michal Pazourek, University of Pardubice, Jan Perner Transport Faculty, Department of Transport Technology and Control, Studentská 95, 53012 Pardubice, Tel.: +420 466 036 201, E-mail: michal.pazourek@student.upce.cz

its name, sometimes this kind of aviation is used exclusively for leisure purposes. The basic end-users division can be seen in the table 2.



Source: Bombardier/Author

Fig. 1 – Number of deliveries of Business Jets

Tab. 1 – Advantages of Business Aviation

Factor	Description	Example
Time Flexibility	Several airports can be served within a short period of time with minimum connecting times.	Aircraft waiting for passengers, not passengers waiting for aircraft
Comfort increase	Additional services can be required on board allowing the passengers to better manage their time.	Catering, Internet, furnishing
Places serviceability	Secondary airports and remote places can be served minimizing the ground transportation use and thus benefit to time and cost saving	Self explanatory

Source: Author

Tab. 2 – Division of Business Aviation Clients

Entity		Example
Company	Repetitive flights for employees	On demand flights bringing employees to remote factories or work places.
	Ad-hoc flights for company management	On demand flights bringing management people to places of business meetings.
Private user	Leisure purposes	Private users travelling on holidays.
	Work purposes	Famous people (singers, actors) travelling to events connected to their work.

Source: Author

Business Aviation has specific infrastructure requirements. Not only do we have to consider airports and their services themselves but also the services connected to the status of passengers. It may be more beneficial for the operators and passengers to use a smaller airport with less traffic and nice infrastructure than to operate to a high-density airport where the priority of a small business jet comes always after regular passengers and cargo traffic. Airport exclusively oriented towards this kind of air transportation are growing and are successful in attracting traffic from previously used high-density airports. Good examples of this phenomenon are Paris-Le Bourget and London Biggin Hill airports being exclusively used by business aircraft and forbidden to any kind of airlines traffic.

2. SITUATION OF BUSINESS AVIATION IN EUROPE

2.1 Overview

Europe is one of the three most Business Aviation developed areas in the world (along with Asia and North America) and is compared to the other two regions is very specific. The leading power in the world is North America with the largest fleets. Europe comes second. Unlike North America, the factor affecting the Air Transportation in Europe is considerably higher number of countries and national regulations with impact on air transportation. The aviation in the world is dependent on the International Civil Aviation Organization (ICAO) creating rules for it. These rules are accepted to national regulations. In Europe, in addition, European Union regulation comes in force for the member states (in this case European Council regulation EEC 3922/91 also known under a more familiar name EU-OPS). The applicable rules depend on the country and city pairs since the intra-community and extra-community approach is crucial in this case. Being very specific in its operations Business Aviation needs a separate organization taking care of the community needs and creating a better environment for the operators. In Europe this is taken care of by the European Business Aviation Association (EBAA). Infrastructure wise Europe is one of the top regions worldwide having good facilities and in general good level of services.

2.2 Traffic counts and leading countries

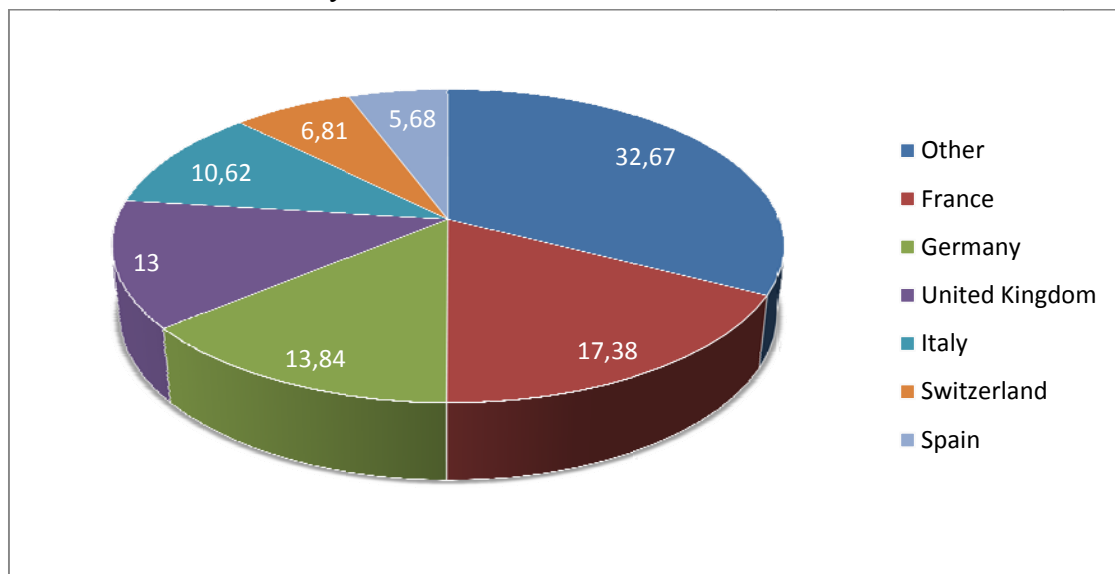
Since the operations routings depend on the places of business or leisure, it is possible to say higher-density areas of operation may be found. Using Eurocontrol statistics for 2009-2010 the top ranking flows in table 3 are found.

Tab. 3 – Top 10 European country pairs in 2010

Ranking	Country pair	Movements per day
1	France-France	152
2	Germany-Germany	119
3	United Kingdom-United Kingdom	110
4	Italy-Italy	99
5	France-United Kingdom	55
6	France-Switzerland	52
7	Norway-Norway	48
8	Spain-Spain	44
9	France-Italy	38
10	Switzerland-United Kingdom	37

Source: Eurocontrol/Author

When a look is taken to the portion of movements in Europe as per the figure 2 the main concentration areas may be defined.



Source: Eurocontrol/Author

Fig. 2 – European top countries in Business Aviation movements

The identified leading factors of the distribution of the flow are the following ones:

1. Country size
2. Economic attraction
3. Size of Business Aviation Fleet (Germany 569 , United Kingdom 452,...Czech Rep. 42)

4. Airport infrastructure
5. Ground transportation infrastructure
6. Geography

2.3 Top airports and aircraft used

When a look is taken again to the Eurocontrol statistics, the most popular business aviation airports can be selected. The situation is depicted in the table 4. Linked to the top countries a clear flow trend can be seen. Surprisingly, Germany’s top rating airport is on the 11th position which reflects the presence of several large cities in the country and even distribution of business aviation traffic. This is not the case of another leading player, France, with traditionally very popular places for Business Aviation being Paris Le Bourget, Nice and Cannes.

Tab. 4 – Top 10 European country pairs in 2010

Rank	Name and ICAO	Country
1	Paris Le Bourget (LFPB)	France
2	Geneve (LSGG)	Switzerland
3	Rome Ciampino (LIRA)	Italy
4	Milan Linate (LIML)	Italy
5	Nice (LFMN)	France
6	London Luton (EGGW)	United Kingdom
7	Zurich (LSZH)	Switzerland
8	Farnborough (EGLF)	United Kingdom
9	Vienna (LOWW)	Austria
10	Madrid Torrejon (LETO)	Spain
11	Munich-Oberpfaffenhofen (EDMO)	Germany
12	Cannes (LFMD)	France

Source: Eurocontrol/Author

Taking a closer look at each of the above described airports the reason why they are so heavily used is revealed. They can be classified into several groups. Some of them can however bear multiple classifications.

- Exclusive Business Aviation Airports

These airports are having advantage of no other colliding traffic and an absolutely priority is given to Business Aviation making the transition very fast and comfortable. Special features such as VIP facilities are to be found at these airports.

Examples: Paris-Le Bourget, Farnborough, Madrid-Torrejon, Cannes, Munich- Oberpfaffenhofen

- Secondary airports to high-density airports in the area
Group of airports with some presence of traditional traffic (airlines, low cost etc.) which is considerably lower than the one of an adjacent high-density airport (example being London-Heathrow with secondary London-Luton)
Examples: Paris Le Bourget, Rome-Ciampino, Milan-Linate, London-Luton, Farnborough, Madrid-Torrejon, Munich- Oberpfaffenhofen
- Airports in economically important areas
Typically these airports are those connected with institutions (European, banking etc.). They face a combination of business aviation and traditional traffic making them very congested. Their economic attraction surpasses the disadvantages of a big airport.
Examples: Geneva, Zurich, Vienna
- Airports with connection to leisure
A typical common feature for these airports is seasonality and need to accommodate large volume of passengers and aircraft. They generally become very congested.
Examples: Rome-Ciampino, Geneva, Nice, Cannes

3. COMPARISON OF BUSINESS AVIATION AND AIRLINES' TRAFFIC

Having analyzed the above factors, several key differences have been identified between the airlines traffic and business aviation. They are further described in this chapter showing several examples for each difference.

3.1 Frequency and regularity

Business Aviation flights are operated depending on the demand. There may be more frequent destination however the character is predominantly random. Unlike airlines operations characterized by a timetable, the operation of Business Aviation does not have a regular character. The typical traffic peaks as we know them from regular operations are not so extreme and we can rather see evenly distributed times of operations. The typical character of operation is point-to-point with a great deal of positioning flights, which is the opposite for airlines where very few positioning flights are made throughout the year and their operation is mostly of a hub-and-spoke character. The coverage depends on the range of fleet but is generally not limited to certain geographical areas as can be the case of airlines.

3.2 Aircraft in use

In terms of aircraft we can see vital differences in the configuration. The typical approach of several classes distribution as we know it from the airlines does not apply to business aviation. The aircraft are fitted with VIP interiors in the whole cabin increasing the level of comfort to its passengers. A good example can be aircraft fitted with convertible beds bringing to their passengers the option to rest on long-haul flights. The aircraft type selected to a flight depends not only on the number of passengers but also on the required level of comfort. Business aviation aircraft tend to accumulate less flight hours and cycles as they are

not rotated in the same manner as regular aircraft fleets. Stability wise and unlike with airlines, instant changes to schedule can be seen.

3.3 Required services

As described in the previous chapters what matters most for Business aviation clients is time. This is often connected to extra services they require when it comes to airports facilities. These may be lounges to lead meetings or transportation from aircraft to the places of their final destination (cars, helicopters or boats). Sometimes facilitated customs clearance is applied if a Business Aviation terminal is in place.

3.4 Use of airports

Described in the previous chapter, the range of airports use for Business Aviation is much broader. Number of visited airports per year in comparison with the airlines traffic is higher (at the expense of volume). The goal is to combine size, fluency of operation, level of offered services, equipment and distance from destination places.

4. END USERS ADVANTAGES

Business Aviation may be costly but can save a lot of money and time to its users at the same time. To make Business Aviation an efficient tool to its customers the right model of operation must be chosen. If operating between smaller airports with fully used seating capacity the cost demandingness is often comparable to regular flights business class prices. On top of that, this approach brings to its user flexibility with schedule changes and cancellations. Not only do the customers need to own a business aviation aircraft. Several shared-propriety models are applied where a larger group of entities share one or more aircraft dividing the costs among them. This approach maximizes the use of aircraft and brings economical effectiveness. Another option is to rent such an aircraft only when needed.

CONCLUSION

The article analyzed the Business Aviation market stressing out its most important specifics. It confirms that this kind of air transport is different in some aspects and needs to be treated with a different approach. It needs its own infrastructure. Business aviation is in full growth and will keep on staying vital in the future. There is an undeniable benefit for end-users in time and cost-saving.

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