



# ‘From Beer to hopefully privatized Cheer’, at Budapest Ferihegy Airport

The beautiful city of Budapest (Hungary) is divided into two halves by the river Duna (Danube). One third of the city, Buda, is situated on the hilly and rough west bank, with two thirds, Pest, being situated on the flat east bank of the river. Therefore, Budapest Ferihegy Airport is not surprisingly situated on the Pest side. Located approximately 25 kilometers southeast of the city center, Ferihegy provides a comfortable and pleasant gateway to Budapest, Hungary and to many other Central and Eastern European cities and regions. And with the expansion of the European Union, and Hungary being a new Union member since 2004, this gateway expects to grow beyond belief.

By A.J. du Saar M.A.

## Ferihegy's history

Ferenc Mayerffy (1776-1845), a brewer of Bavarian origin, was the landlord of the territory where the present airport is located. He lived in this area and built a flourishing manor by the early 1800s. Mayerffy became one of the wealthiest citizens of Pest, owning several breweries, vineyards and many hop-fields. After his death, the land in the vicinity of his three settlements was named Ferihegy-plain, in his honor.

In 1928, the Hungarian Academy of Sciences inherited the family's estates, including Ferihegy-plain. Eight years later the Academy's Board of Directors approved a proposal from the Hungarian Aviation Office, to buy the land and use it to build an airport for combined military and civil purposes. The plan to convert Ferihegy Manor took up roughly 410 hectares. In August 1939, the location of the terminal building was determined, and soon after, construction began on the buildings, grass runway and roads leading up to the airport. Influenced by the Second World War, the airport was given a predominantly military purpose. This resulted in a 'state of the art' airport with, for example, 60,000 square meters of concrete apron and many engineering and hangar facilities as part of the Hungarian Military Aviation Research Institute. On the other hand, it also made it a target for the Allied Forces, as German troops were stationed at the airport. After

several heavy bombings in mid 1944, Ferihegy was completely destroyed.

The decision to rebuild was taken in 1947 and set in motion a fast rebuilding phase. Work on a new concrete runway started on July 1st, 1948 and five months later, the 1.4 kilometer long runway was finished. At the same time, the Airport Investment Company was founded for a further and speedy development of the airport. On May 7th, 1950, Ferihegy Airport (re)opened for traffic and the following day, the first scheduled flight departed for Prague,

Czechoslovakia. In the 1950s and onwards, the airport experienced a steady growth in passengers, cargo and aircraft movements (see Figure:1). When the Iron Curtain was erected (1961), Ferihegy's destination network became mainly orientated on other Warsaw Pact countries. KLM was the first Western airline to operate scheduled flights from Ferihegy; in this case to Amsterdam. On April 5th, 1966, a KLM DC-8 also offered the first transatlantic air service (10,5 hours), between New York and Budapest.

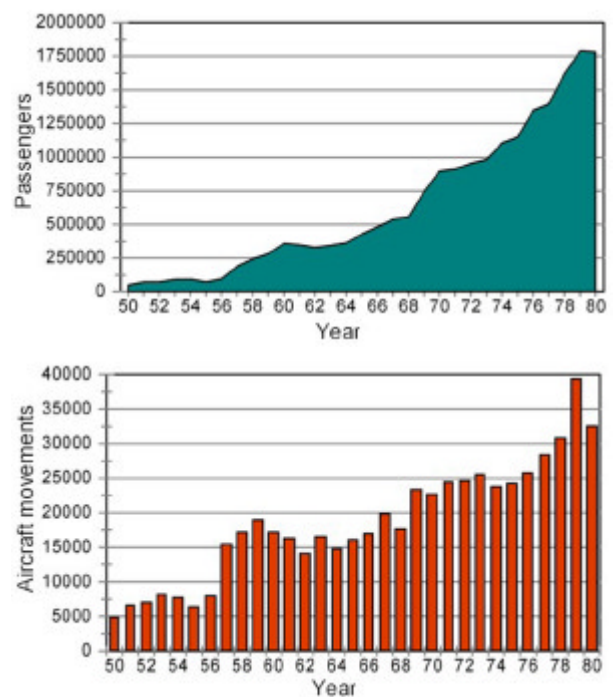


Figure 1: Growth of passenger numbers and aircraft movements from 1950-1980. Source: Budapest Airport Rt.

In 1974 the passenger number reached more than one million. To facilitate this steady growth for the years to come, several 'navaid' upgrades were completed and in the mid 1980s a new runway (13L/31R), a control tower and a second terminal, 'Ferihegy 2', were built. This growth also led to the foundation of the Air Traffic and Airport Administration (LRI), to operate the airport, to control air traffic and manage all other aviation related duties.

## Budapest's operator

On January 1st, 2002, the LRI was split up into two separate companies. Hungarocontrol (supervised by the Ministry of Transport) manages air traffic control and Budapest Airport Rt. is responsible for the management of Ferihegy Airport.

“Budapest Airport Budapest Ferihegy Nemzetközi Repülőtér Üzemeltető Rt.” as the company is officially called, is 100 percent state-owned. Its core activity is the operation of the airport based on the asset management license over assets owned by the Hungarian State. In this role, the company collects charges from the airport users through fees related to aircraft and passenger transport, as well as rental related assets and area use. In addition to Ferihegy, the company also manages the airfield at Siófok-Kiliti. A small airfield near Lake Balaton, which is very popular among sports and recreational aviation supporters. Budapest Airport Rt. currently has around 2300 employees.

Ferihegy Airport mainly competes with large airports of neighboring countries like Vienna, Bratislava and Prague, and to a much smaller extent, with Hungarian regional airports like Debrecen airport in eastern Hungary for filling the position of a Central European collection and distribution hub. Therefore, any profit on activities is used for further development so that the airport can satisfy and make use of the increased transport needs (for example low-cost carriers) arising from the current renewed growth in air transport. Developments are aimed at increasing capacity, renewing assets and increasing the weight of the core activity. Its economic position can be characterized by the fact that the requirements of external financing for development are minimal.

However, to promote participation of one or more trade and/or financial investors in share sales, the government announced a partial privatization of Budapest Airport Rt.. A privatization tender is currently underway, after much debate in parliament and an earlier delay. It will be the largest privatization in Hungary in 2005, and if completed, it may result in a 150 billion Hungarian Forint (\$780 million\*) bargain for the Hungarian treasury.

Due to a steady growth in air traffic and passenger numbers in recent years, many foreign airport operators are interested in the 75 percent-minus-one-share stake in Budapest Airport Rt. Under the Hungarian Privatization Act, 25 percent-plus-one votes must stay in permanent state ownership. Among possible bidders are, according to the local media, the Venice Airport Authority (SAVE sPA), BAA from Great-Brittain, the Austrian airport operator of Flughafen Wien, Spain's Ferrovial, Fraport from Germany and Copenhagen Airports. Privatization is expected to be completed in 2005.

The step to privatization is seen as a vital ingredient for acquiring additional market share and turnover and it will, according to the government, significantly increase the airports future role as a major hub in the region. Budapest Airport's CEO mister Hárskuti told the business daily “Napi Gazdaság” that he expects a net profit of nearly 12 billion in 2005 (\$57,8 million\*), from about 10 billion

HUF (\$48,2 million\*) in 2004. Sales will probably rise 19 percent to 38 billion HUF (\$183,2 million\*), the Napi Gazdaság states.

To complete the picture of growth, Budapest Airport Rt. net sales revenue reached 28,8 billion HUF (\$138,9 million\*) yielding a profit before tax of 4,3 billion HUF (\$20,7 million\*), as shown on the website of Budapest Airport ([www.bud.hu](http://www.bud.hu)).

## Airport infrastructure

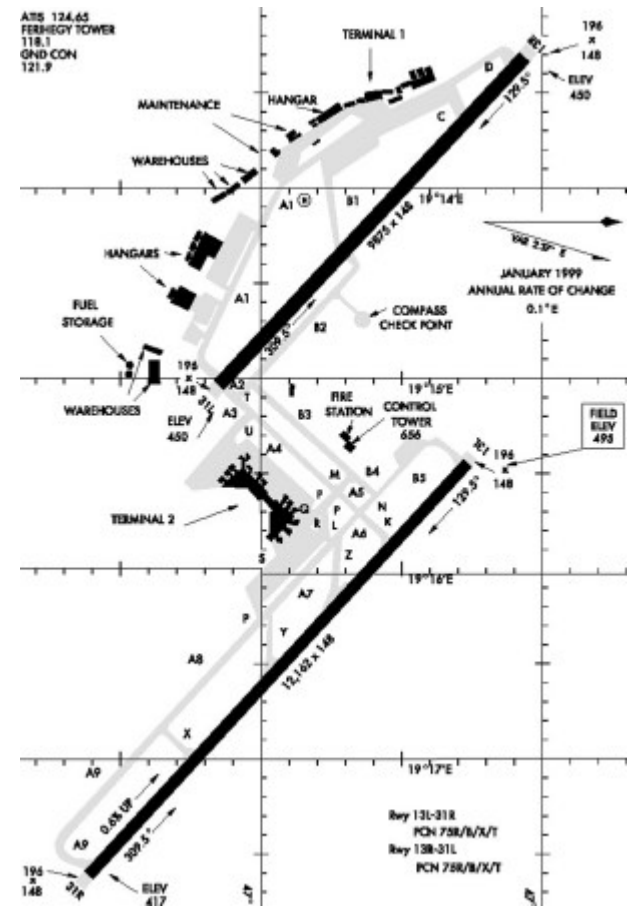


Figure 2: Airport Diagram of Budapest Airport.

The airport has two runways, that are used for combined general and commercial aviation. Figure 2 shows the layout of the field. Both runways are situated parallel in the direction of 129 and 309 degrees. Runway 13R/31L was (re)built in 1948. By 1950, it was extended for the first time and in 1958, it was extended to its present length. Taxiways “D” and “A1” were constructed in the latter year as well.

In July 1979, work on the concrete surface of runway 13L/31R was started. This runway was not built in a steady pace as runway I was built, as it entered service not until 1983. After completion of runway II, the old runway was closed for intensive reconstruction and reopened in 1987.

The relevant information about the runways is, in short:

	13R/31L	13L/31R
Length	3,101 by 45 meters (9,875ft by 148ft)	3,700 by 45 meters (12,162ft by 148ft)
Heading	129,5 - 309,5°	129,5 - 309,5°
Elevation	450ft	495ft
Slope	0,0%	0,6% 31R
Surface	Concrete	Concrete
ICAO CAT.	CAT. 2	CAT. 3A
Nav aids	ILS (Instrument Landing System)	ILS (Instrument Landing System)
Aircraft size restrictions	No restrictions	N.a.

### Passengers terminals

Ferihegy airport has two terminals, called Ferihegy 1 and 2. Ferihegy 1 was built in 1950 as the main passenger terminal. Since the late 1990s, it was closed to passenger service, but remained in use for cargo, general aviation and the occasional charter flight. The terminal is situated near the end of runway 31L. Together with several nearby hangars, warehouses and maintenance facilities, it represented the 'sleepy' part of the airport until 2003. But in June 2003, Ferihegy 1 woke up again as a dedicated low-cost terminal, with the inaugural flight of low-fare airline Germanwings from Cologne (Germany) to Budapest. A couple of months earlier, the Scandinavian no-frills airline Snowflake commenced its operation from Stockholm (Sweden) to Budapest. On top of that, several other low-cost carriers, like SkyEurope and Easy Jet, were planning to open a route to Budapest Airport.



*Terminal 1 before it was refurbished.  
Photo by A.J. du Saar*

Facing this growth in passenger traffic (see table 2), Ferihegy 1 was unable to meet the increasing demands. It only had two check-in counters, two waiting areas and 'communist'-style comfort. On top of that, the stricter security regulations and EU requirements (Schengen) proved problematic. Therefore, in September 2004 Terminal 1 closed its doors for a long-planned upgrade, that costed 8,7 billion HUF (\$41,9 million\*). When renovations are completed, it will have 19 check-in counters, four security gates, seventeen passport control points, four conveyor belts and six waiting rooms. Ferihegy 1 nominal capacity will be 2.5 million passengers per year, but its actual capacity might even be significantly higher. Given

that low-cost carriers are expected to carry 1.6 million passengers to Budapest this year, there should be enough space for further growth. Alas, while swelling passenger numbers, are currently overloading Ferihegy 2, the airport announced during the end of May 2005 that the Ferihegy 1 terminal relaunch faces a delay. Due to contractual disputes, it is unlikely to come into operation before the summer of 2005.



*Artist impression of Terminal 1 after refurbishment.*

Ferihegy 2 consists of two separately built terminals, and is situated between runways 13R/31L and 13L/31R. The first terminal, Ferihegy 2A, was opened in 1985 and has a floor space of 24.000 square meters. This terminal is used exclusively by the national carrier, Malév, for scheduled and charter flights and by partner airlines, which operate codeshare flights with Malév. Ferihegy 2A was originally capable of handling 2 million passengers per year. In the beginning of 2003, the terminal was closed for refurbishment. Work at the departure hall, which lasted five months, brought security standards in line with international requirements. New surveillance systems were installed, check-in counters were renovated and air-conditioning was introduced. The project costed 5 million EUR, but the new open, light-flooded glass architecture got rid of the 'wood-and-marble'-rule from the airport's communist days.



*Terminal 2a. Photo by A.J. du Saar*

Terminal 2B, situated next to 2A, was opened in 1988, and handles flights of foreign airlines, like Lufthansa, British Airways and Austrian. Ferihegy 2B, is bigger than its older sister and has a floor space of 30.000 square meters.



Interior of Terminal 2. Photo by A.J. du Saar

Furthermoe, the facilities at 2B were rated under 'par', and received an update in 1998 without it being closed. Both terminals have facilities to X-ray and cross-check 100 percent of all baggage to fulfill the latest international requirements.

At the moment, Budapest Airport Rt. studies on the possibility to build a third terminal, likely to be called 2C. In May 2002, consulting company Roland Berger started working on a ten-year strategic plan for Budapest Airport. This ten-year infrastructure development will probably include the building of this terminal, the construction of a new parking facility, the further extension of the existing apron and the establishment of a new cargo base due in 2 to 3 years time. As privatization is still under way, airport management is not very outspoken regarding these plans. Financing of the project may involve capital that is committed to privatization, various EU-funds and private capital.

Table 1: Current growth in passenger numbers, cargo (tonnes) and aircraft movements.

Traffic	2001	2002	2003	2004
PAX	4,594,875	4,482,695	5,022,538	6,456,983
Cargo	45,211	46,476	46,093	n.a.
Aircraft	81,166	77,941	88,471	111,753

### Cargo terminals

The cargo-handling services at Ferihegy are provided by Budapest Airport Rt. and Malév. The airport operating company operates 4.000 square meters of air cargo handling facilities while the airline has a freight terminal covering 6.500 square meters.

Former airport operator LRI handled 31.000 tonnes of cargo in 2001, and together with Malév (14.211 tonnes) a total of 45.211 tonnes of cargo came through the airport. Current cargo traffic is 80.000 tonnes (according to unofficial figures) and could, according to several studies of Budapest Airport Rt. and Roland Berger consulting, reach 08.000 tonnes by 2012 and 150.000 tonnes in 2015. As the current cargo facilities are nearing their capacity limits, the airport has bought a 20-hectare plot to develop a new air cargo and logistics base. Initially, the base was planned to be in use by 2005, but the privatization process slowed things down. A part of an overall strategy to make Ferihegy Airport a leading cargo hub in Central Europe, has provoked fierce political questioning and a demand for an investigation into the land deal.

However, Budapest is already functioning as a hub for traffic to neighboring Eastern European

countries and airports. The airport is also very popular with integrators and express companies, like TNT and UPS (see also the paragraph on "Air traffic"). With 12.600 tonnes in 2004 (source: Fraport), this freight stream represents approximately 30 percent of all air cargo flown to and from Ferihegy. According to forecasts from Fraport, with which Budapest Airport Rt. has several co-operation agreements, these volumes could increase to 34.000 tonnes by 2015.

In light of the above-mentioned events, according to local media, the airport's management now wants to set up the new cargo base by the end of 2006. It will first establish a 5.000 square meter office building and a 19.000 square meter warehouse with an annual capacity of about 110.000 tonnes. The construction of the new cargo and logistics base is estimated to cost 5-7 billion HUF (\$24-33 million\*).

### Accessibility

To reach Ferihegy's terminals you have to travel by car, shared minibus service or public bus service. There is no rail service available, although two sets of tracks virtually run over the doorstep of Terminal 1 and come in close proximity of Terminal 2A and 2B. But all trains pass by at a comforting speed of 120 km/h! Strangely enough, Ferihegy Express Rt. was established already in July 2001 by, amongst others, the Hungarian Railways to manage a 20.3 billion\* HUF (\$98 million) airport express project. At the moment the consortium is still looking for investors to finance the project. But according to local media, the express service is not expected to operate any time soon. Since a few years, there is a dedicated airport bus, which departs from and to Budapest's city center every 30

minutes. The journey takes approximately 45 minutes. Prior to the airport bus, one could reach the airport by “express bus” only, stopping at every corner, from the underground terminus Kőbánya-Kispest, which is situated far way from both the city and the airport.



**Figure 3: How to reach the airport?**  
Source: Budapest Airport Rt.

### Airport Traffic

In recent decades, a variety of aircraft types took off and landed at Ferihegy Airport. In the beginning, the military types dominated: Messerschmits, Junkers, Yaks, Ilyusins, Polikarpovs Tupolevs were regular visitors. The airport still receives its share of Tupolevs and Yakovlevs, like in 2003 when more than 500 landings and take-offs of those types were registered. However, after the 1960s in the ‘jet age’, Boeings, DCs and Airbuses, slowly but steadily, took over. Nowadays, Ferihegy does not handle very large aircraft, but rather many small to midsized aircraft. Because more than 90 percent of commercial traffic is from and to European destinations, it is mostly Boeing 737, Airbus 320 and Fokker 70 arriving and departing. And from that 90 percent, nearly 65 percent of the flights originate from the European Union. The most frequent destinations in 2004 were Amsterdam, Berlin, Frankfurt, London, Milan, Munich, Paris, Prague, Tel-Aviv and Zurich. So, most flights are short-haul and have a flying time of less than 90 minutes.

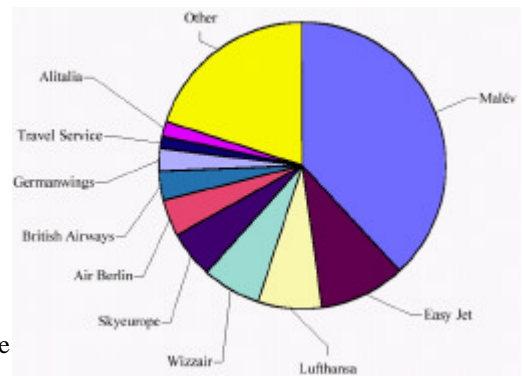
Among the foreign airlines, Easy Jet, Lufthansa, Wizzair, Sky Europe, Air Berlin, British Airways,

Germanwings, Travel Service, and Air France have built up an outstanding traffic figure. In passenger transport these nine carriers served 67,8 percent of total foreign traffic.

A few carriers use jumbos or bigger full-freighters weekly. One of them is the Luxemburg-based Cargolux, which started its first scheduled flight in April 2002. Cargolux operates twice-weekly flights between Budapest and Hong Kong and once a week flights between Budapest and Singapore, using its B747-400F aircraft. Other full-cargo operators are TNT (BAe-146 and A300) UPS (B757-200F) and KLM (B747-400F). ATLAS Air (B747), Gemini (DC-10), Lufthansa Cargo and EL-AL (B747) also visit the airport frequently, but on a more chartered bases.

### Aircraft maintenance services and facilities

Focusing on commercial airliners, Ferihegy has two well-equipped technical service centers. Firstly, Aeroplex Central Europe, which offers services in transit check, pre-departure checks, maintenance and major modification of respectively aircraft and aircraft systems. Aeroplex is specialized in performing heavy and light maintenance checks on several types of aircraft, like the Boeing 737 (all series), Boeing 767 and Fokker 70. The company also holds an FAA certification that covers line services on the above-mentioned aircraft types plus the Airbus 300-600 series. Their US operator reference is UPS, which regularly visits Ferihegy Airport. Second, Lufthansa Technik Budapest (LHB) is proving to be a promising collaborative venture at Ferihegy, since 2000. This company is part of the international aircraft overhaul network. It carries out the intensive “D” and “IL” checks on Boeing 737s and Airbus 320s, which requires teardown or stripping and scientific testing of aircraft components. LHB operates out of two hangars rented from Budapest Airport Rt. and has invested 17 million EUR (\$20,8 million\*) in



**Figure 4: Market share of airlines operating the highest aircraft traffic.**  
Source: Budapest Airport Rt.

its maintenance facilities on the airport. The reason for choosing Ferihegy lies, according to the management of the company, mostly in the fact that buildings and equipment were readily available, along with a good supply of highly skilled workers and an acceptable price level with regard to operating costs.

### Noise abatement

As Ferihegy is situated more or less on the outskirts of Budapest, airport operations are bound by several noise regulations. To begin with, the approach procedures prescribe a certain descent that the increase of engine power can be avoided as much as possible. Also, the use of speed reduction and extension of landing gear and flaps must be used in such a way, that a stabilized approach is established and the correct approach speed is reached only 5NM on final track. Also the standard departure routes are minimal noise routes and avoid residential areas as much as possible. Noise abatement departure routes have been designed for aircraft departing from runways 31L en 31R. All types of aircraft must follow these departures. To avoid significant noise levels during take-off, rolling take-off procedures are advised by air traffic control.

Second, during the nighttime hours, 22:00 - 06:00, the use of the airport is restricted further to scheduled flights only and aircraft certified as ICAO Chapter 3 and higher. Between 24:00-05:00 no scheduled landing or take-off can be planned or carried out. Third, with regard to land use planning (since 1997), also several measures have been taken in the surrounding area. There is an environmental zoning law, and for residential house



Malev runs a busy Terminal 2A. A pushback makes way for immediate deboarding of another aircraft. Photo by A.J. du Saar

and public buildings, there is a sound insulation program. Homeowners qualify for purchase assurance provided the home was sound-insulated through the airport's sound insulation program. Also sellers are now required to disclose that the residence is located within a certain airport noise contour and the buyers must sign that they have been made aware of this.

Last but not least, the airport has a noise monitoring system that consists of 6 monitoring terminals. The noise data processing is carried out by one computer and another computer carries out the correlation with stored flight information data. The terminals are connected by automatic dial-up modems. Data is collected once a day. The noise limits are determined by the so-called Zurich method.



Budapest Airport Rt.'s main and closest partner is Malév; the national carrier of the Republic of Hungary and 'home carrier' at Ferihegy. Before the low-cost carriers started, it had operated for many years around 50 percent of total air traffic on the airport. The airline will celebrate its 60th anniversary on March 29 2006. Today the company can be ranked as one of the leading airlines of the Central

Eastern European region, offering scheduled passenger, cargo and charter services. However, the story began with a company called Maszovlet, founded under communist rule of the Soviet Union. In 1950, Maszovlet transferred its small operation, consisting of Lisunov Li-2 aircraft (the 'licensed' Soviet version of the DC-3), from the nearby Budaörs Airport to Ferihegy Airport.

In 1954, the company name changed to Magyar Legiközlekedési Vállalat (Malév). With the delivery of the IL-18 six years later, it opened services from Ferihegy to several European destinations, like Moscow, Amsterdam and Vienna. The Tupolev Tu-134 was the first jet aircraft for Malév and it landed on December 22 1968 for the first time on Ferihegy Airport. The airline began in 1989 to replace its Tupolev fleet (Tu-134 and Tu-154) with Boeing 737 and 767 aircraft, and bought in 1995 six Fokker 70 aircraft to complete this renewal.

The fact that Ferihegy also became more 'quiet' was a huge side effect of this fleet overhaul.

In 2003 Malév began exchanging its fleet of 15 Boeing 737-Classics for the latest 737 Next-Generation airliners. The first 737NG in Malév livery landed at Ferihegy Airport on January 29th, 2003. At present Malév's fleet consists of 28 aircraft (see Table: 2)

Table 2: Malév's aircraft fleet, March 2005

Type of aircraft	No. of aircraft	Seats
Boeing 767-200ER	2	185
Boeing 737-800NG	4	180/160
Boeing 737-700NG	7	119
Boeing 737-600NG	6	102
Fokker 70	5	67
Canadair CRJ 200ER	4	50
<b>Total</b>	<b>28</b>	<b>3030</b>

Note: \*): Amounts must be seen as indication, as current rates were used.

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