Budapest Ferenc Liszt International Airport

IATA/ICAO CODE:	BUD/LHBP
CITY:	Budapest
COUNTRY:	Hungary

AIRPORT CONTACT

Information updated by the airport 5/2011

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ELEVATION: 495 ft.

RUNWAY INFORMATION					
Orientation Length ft) Displaced Threshold ft Glide Slope(deg) Width (ft)					
13L/31R	12162	-	3	148	
13R/31L	9875	-	3	148	

NOISE ABATEMENT PROCEDURES

Arrivals

It is prohibited for arriving aircraft to perform an approach below the glide path worked out for the 3 degree theoretical glide path in the PAPI glide path or in the given approach procedure from FAP (Final Approach Point). Aircraft performing calibration flights are exceptions to this rule.

Noise abatement behavior expected of aircraft pilots during arrivals:

- Prior to final approach, the last reported altitude must be maintained as long as possible.
- The reduction of the speed of the aircraft and the release of the landing gear and of high lift devices must be planned so that the conditions of stabilized approach and the appropriate approach speed should be in place by 5 NM from the touchdown point at the latest on final approach.
- Descent during final approach should be controlled so that increases to engine power can be avoided as much as possible.

During nighttime from 22:00 to 06:00 LT the use of reverse thrust must be limited to idle thrust, except if operational circumstances require the use of a higher level of thrust.

Departures

The use of taxiways for runway 13L/31R for departing aircraft for noise abatement reasons:

- In case of departure from runway 13L, pilots are requested by the airport operator to plan takeoff from taxiway K, if possible.
- If a departing aircraft belonging in the medium or heavy turbulence category receives/is given runway 31R for takeoff, it must commence takeoff from the end of the runway, using taxiway A9, but if traffic conditions require, takeoff may also be permitted by using taxiway X.

Compliance with the standard instrument departure (SID) procedure published in the AIP is mandatory for aircraft performing IFR flights up to an elevation of QNH 7000 feet (2150 m) above mean sea level in case of runway direction 31 and up to QNH 4000 feet (1200 m) above mean sea level in case of runway direction 13, except for turboprop and light turbulence category aircraft or aircraft requesting a cruise altitude of less than 9500'.

Due to aviation safety reasons or in case of unfavorable meteorological conditions, air traffic controllers may apply a special departure procedure which differs from the SID.

Aircraft taking off according to the SID are obliged to maintain a climb gradient of at least 5.5 % up to an elevation of QNH 7000 feet (2150 m) above mean sea level in case of runway direction 31 and up to QNH 4000 feet (1200 m) above mean sea level in case of runway direction 13. If the aircraft performing the takeoff procedure is unable to maintain the minimum climb gradient of 5.5 %, it must report this to the ATC service immediately when making the first radio contact after the receipt of route clearance.

Additional noise abatement procedures for departing aircraft see SID charts.

CONTINUOUS DESCENT ARRIVAL (CDA)

Budapest Ferenc Liszt International Airport is committed to implement CDA procedures by the end of 2012.

AIRPORT CURFEWS

The term "nighttime" covers the period between 22.00 and 06.00 hours local time.

At nighttime, scheduled and non-scheduled commercial landings and takeoffs may only be performed subject to restrictions. The number of movements which may be planned for the nighttime is as follows:

- 50 movements between 22:00 and 06:00 LT,
- Out of this, 6 movements between 00:00 and 05:00 LT.

About flights planned at nighttime the Airport Coordination Department of HungaroControl Ltd.Co (HC COORD) shall be notified. Airport slots for such flights shall be approved by HC COORD. The flights are requested on the day of operations shall be approved by Budapest Airport Ltd. Airport Operations Center (Airport OPS).

In addition, aircraft which are constrained by adverse weather or technical reason, or performing patient transportation, disaster aversion, technical rescue, enforcement, criminal investigation, national security, military or government flights and those in an emergency may use the airport without restriction during nighttime.

It is prohibited to perform practice and calibration flights during nighttime from 22:00 to 06:00 LT.

PREFERENTIAL RUNWAYS

Daytime (from 06:00 to 22:00 LT)

In case of runway direction 31

In case of all traffic arriving to Terminal 2 and ICAO category E traffic arriving to Terminal 1, runway 31R, and, in case of traffic arriving to Terminal 1, runway 31L is to be used, but if traffic conditions require, runway 31R can also be used for landings. In case of departing traffic, runway 31L is to be used for takeoffs.

In case of runway direction 13

In case of arriving traffic, runway 13R, and 13L with the restrictions defined in this chapter are to be used for landings. In case of traffic departing from Terminal 2 and ICAO category E traffic departing from Terminal 1, runway 13L, and, in case of ICAO category A, B, C and D category traffic departing from Terminal 1, runway 13R is to be used, but if traffic conditions require, runway 13L is to be used for takeoff.

Nighttime (from 22:00 to 06:00 LT) – Operational regulations which differ from daytime

Primarily runway 31R and also runway 13R are to be used by arriving traffic in compliance with the prevailing legal provisions. If traffic conditions require, runway 31L may also be used for takeoffs.

From 00:00 to 05:00 LT, runway 13L is to be used for takeoffs and runway 31R is to be used for landings. In case of 13L/31R is closed, runway 13R is to be used for takeoffs and runway 31L is to be used for landings.

Restrictions on landings on runway 13L

For noise protection reasons, runway 13L may only be used for landings on working days from 08:00 to 22:00 LT by aircraft which comply at least with noise requirements of ICAO Annex 16 Vol. I., Section 3, and not exceeding a maximum takeoff weight of 100 tons, if traffic conditions require.

Exceptions:

Deviation from the basic rules on runway use is only possible under the following circumstances:

- During the closure one of the two runways due to maintenance works, or another unexpected event;
- In case of calibration flights;
- If noise abatement considerations cannot be taken into account during the selection of the runway to be used, based on section 7.2 of appendix 2 of decree no. 16/2000. (XI.22.) of the Minister of Transport and Water Affairs;
- If the captain of the aircraft rejects the runway use offered on the basis of noise abatement considerations, citing aviation safety reasons;
- If the aircraft is in an emergency;

If no ILS approach is available on the runway selected on the basis of standard regulations.

OPERATING QUOTA

At nighttime, scheduled and non-scheduled commercial landings and takeoffs may only be performed subject to restrictions. The number of movements which may be planned for the nighttime is as follows:

- 50 movements between 22:00 and 06:00 LT,
- Out of this, 6 movements between 00:00 and 05:00 LT.

ENGINE RUN-UP RESTRICTIONS

Areas designated for engine run-up:

- 1. The existing engine test area, equipped with noise mufflers, which is currently out of operation. This area is available for testing of prop or turboprop aircraft only.
- 2. B5 Holding Bay
- 3. TWY A9
- 4. The helicopter tie-down position.

Aircraft may only access and leave the designated areas under tow.

Between 08:00 and 18:00 LT, the areas designated for engine run-up may be used without restriction on engine power. If engine run-up is necessary between 18:00-08:00 LT, a separate prior written permit must be obtained from the National Transport Authority Directorate for Air Transport.

Engine run-up is prohibited on the terminal aprons. If necessary, the air tightness checks of aircraft systems may be performed on stands 16 and 17 on terminal apron no. 1, and on stands 78 and 79 on terminal apron no. 2 at idle thrust for a maximum duration of 5 minutes, based on the permission received from the competent Apron Management unit, in compliance with the rules of engine testing.

APU OPERATING RESTRICTIONS

Aircraft operators must act circumspectly regarding noise burdens arising from the use of auxiliary power units (APUs), in order to protect the area surrounding the airport, especially during nighttime from 22:00-06:00 LT.

- The operation of APUs must be stopped as soon as possible after arrival on the stand,
- APUs may only be restarted for essential technical checks, or immediately prior to planned departure to ensure appropriate conditions in the passenger cabin and for electronic systems,
- The operation of APUs is not permitted without the presence of trained specialist staff,

Deviation from regulations on the use of APUs during nighttime is only possible

- Due to aviation safety reasons, or
- Upon warranted requests, with permission from the duty airside manager (DAM).

During nighttime, the duty airside manager (DAM) checks airfield operational areas and warns the crews or the ground handling agent of aircraft breaching regulations on the use of APUs.

NOISE BUDGET RESTRICTIONS - NONE

NOISE SURCHARGE Noise Charge at Budapest Ferenc Liszt International Airport

General

According to Section 66/A (6) of the Air Transport Act, Budapest Airport Pte. Ltd. may collect the costs for noise protection from those operating aircraft causing noise as an element of the charge for the use of the airport in order to provide for the funds necessary to the performance of the duties prescribed by the Air Transport Act and by the 176/97 government decree on the rules of the marking, utilisation and termination of the noise prevention areas to be established in the vicinity of airports.

5.1.2 Determination of the rate of the noise charge (Z)

The amount of noise charge (Z) shall be calculated on the basis of the following formula:

 $\mathbf{Z} = \mathbf{A}^*\mathbf{K}^*\mathbf{N}^*\mathbf{M}$

"A" is the base charge

A =7.00 EUR/movement

"K" is the aircraft category factor

The amount of the noise charge is proportionate to the noise emission, therefore the principle of output- proportionate adequacy shall be fulfilled by classifying the planes into four categories.

The aircraft whose noise levels are expressed in terms of EPNdB units of measurement in their noise certificates shall be classified on the basis of the flyover noise level indicated in the noise certificate in the case of take-offs, and on the basis of the arithmetical mean of the noise levels indicated in the noise certificate in respect of the approach and lateral reference points in the case of landings:

Category 1	Category 2	Category 3	Category 4
EPNdB	EPNdB	EPNdB	EPNdB
L <= 82.3	82.3 < L = 90.3	90.3 < L = 94.3	94.3 < L

For aircraft whose noise levels are indicated in dB(A) units of measurement in the noise certificate, in the case of take-offs and landings:

Category 1	Category 2	Category 3	Category 4
dB(A)	dB(A)	dB(A)	dB(A)
L <= 71.3	71.3 < L = 79.3	79.3 < L = 83.3	83.3 < L

On the basis of the above classification, the value of "K" shall be the following:

Category 1	Category 2	Category 3	Category 3
0.4	1	1.8	3

If an aircraft that does not meet the requirements prescribed in Chapter 3 of Part II of Volume I of Appendix 16 of the Chicago Convention (3rd edition, 1993) uses the airport with the permission of the air transport authority, the value of "K" shall be 3.

"N" is the factor related to the parts of the day. All times are Local Time

Daytime	Evening	Morning	Night
(06:00-22:00)	(22:00-24:00)	(05:00-06:00)	(24:00-05:00)
1.0	1.5	1.5	10

"M" is the factor related to the operations

Further to § 24, para (3) of the Government Decree referred to in the introduction the amount of the noise charge shall be determined separately for take-offs and landings.

Take-off	Landing
0.91	1.1

If the airport user does not submit to Budapest Airport Pte. Ltd. the noise emission data indicated in the noise certificate, and necessary for the calculation of the noise charge at the time of the take-off of its aircraft at the latest, then the highest "K" category factor shall be applied until the airport user submits the missing data.

Exemptions

The noise charge shall not apply to those airport users who are exempted from the payment of landing charge.

Aircraft with a maximum take-off weight of 3,000 kg or less shall be exempted from paying a landing charge.

NOISE MITIGATION/LAND USE PLANNING PROGRAM INFORMATION

Type of Program	Date Implemented	Status
Voluntary Noise Insulation Program (sleeping quarters of properties)	2008-2010	The program covering the immediate vicinity of the airport is 100% complete
Sound Insulation (Residences and Public Buildings)	pending	To be implemented once noise Protection Zones are approved by the CAA
Purchase Assurance for Homeowners Located Within the Airport Noise Contours	pending	Government decree provides purchase assurance for homeowners located within the airport noise contours, once noise Protection Zones are approved.
Avigation Easements	-	The right of that way is not adapted in the Hungarian legal system.
Zoning Laws	validity from	General law was adopted in 1997. Noise protection zones have been calculated by Budapest Airport

	1997	and submitted for approval. The zones have not yet been approved.
Real Estate/Property Disclosure Laws	pending	Once noise zones are designated property registries will be updated to include such information.
Acquire Land for Noise Compatibility to date	1976	In 1976 there were some appropriated properties. No further acquisitions since
Population within each noise contour level relative to aircraft operations	-	Not known, as related noise contours do not currently exist.
Airport Noise Contour Overlay Maps	2010	Strategic noise contour maps were prepared in 2010, based on the real traffic distribution in 2009.
Total Cost of Noise Mitigation Programs to Date	Until end of 2010	Approx. 360.000 €
Source of Noise Mitigation Program Funding for Aircraft Noise	From 01.01.05.	A noise protection fund is established, funded by the noise protection element of aircraft landing charges.

NOISE MONITORING SYSTEM

Budapest Airport operates a complex, Brüel & Kjær 7802/7804 type noise monitoring and track keeping system.

The 7802 type noise monitoring system consists of 6 permanent noise monitoring terminals (NMT) around the airport and one portable NMT which can be placed everywhere in the vicinity of the airport on request. The terminals continuously detect, analyze record and store aircraft and background noises. Several times a day the measured data are forwarded via GSM connection to the central data storage computer located at the airport. The database is used to prepare hourly, daily and monthly reports about individual noise events and the par value noise burdens generated by aircraft.

With 7804 type track keeping part of the system it is possible to draw the flight paths of individual aircraft on a map using real radar data, which is received in real-time mode from ATC on the central computer. If the data are examined, either for an individual flight or collectively, it can be ascertained whether or not aircraft had breached flight procedures

NMT	Distance from the Runway THR	Distance from the Centerline	Position	Name of the Runway
1	7.9km	260m	left side	13R
2	1.7km	280m	right side	13R
3	2.1km	0m	center line	13L

4	1.9km	150m	left side	31L
5	7.2km	150m	right side	13L
6	5.3km	280m	left side	31R

FLIGHT TRACK MONITORING SYSTEM

See information under Noise Monitoring System

NOISE LEVEL LIMITS - NONE

CHAPTER 2 RESTRICTIONS

Chapter 2 airplanes >75,000 lbs are banned from operating at airports in EU Member States as of April 1, 2002. Chapter 2 airplanes are ban from operating at this airport from 1st January, 2005.

CHAPTER 2 PHASEOUT

From April 1, 2002 all civil subsonic jet aeroplanes >75,000 lbs operating at airports in EU Member States must comply with the standards specified in Part II, Chapter 3, Volume 1 of Annex 16 in accordance with EU Council Directive 92/14/EEC. Chapter 2 airplanes are ban from operating at this airport from 1st January, 2005.

CHAPTER 3 RESTRICTIONS - NONE