

ENR 1.7 ALTIMETER SETTING PROCEDURES**1. INTRODUCTION**

The altimeter setting procedures in use generally conform to those contained in ICAO Procedures for Air Navigation Services - Aircraft Operations (ICAO Doc 8168, OPS/611 (PANS-OPS)) Vol. I. Part III. Section 1.

These procedures are applied to all IFR and VFR flights operating within the Budapest FIR.

The atmospheric pressure is measured in accordance with ICAO Annex 3 Chapter 4, paragraph 4.11.

QNH and QFE values are computed in tenths of a hectopascal (hPa). On pilots' request it may be given in millimetres and tenths.

In routine reports disseminated at the aerodrome, QNH is included regularly while QFE is available on request from ATS units.

The values are rounded to the nearest lower whole hectopascal. For example, QNH 995.6 hPa is given as "QNH 995".

In plain language reports ((ATIS and VOLMET) broadcast), the unit of measurement (hPa) is omitted.

2. BASIC ALTIMETER SETTING PROCEDURES**2.1 General****2.1.1 Transition altitude**

The transition altitude specified for the Budapest FIR is 10 000 FT (3 050 M).

2.1.2 Transition level

The transition level will be determined by the appropriate ATC unit so as to give a transition layer of at least 1000 FT (300 M) vertical separation above the transition altitude.

For determination of current transition level the following table is used.

Transition altitude		QNH hPa	Transition level
Feet	Meters		
10 000	3 050	1013.3 and above	FL110
		1013.2 - 977.2	FL120
		977.1 and below	FL130

The transition level at Budapest Liszt Ferenc International Airport is normally transmitted in the ATIS broadcast, or is advised in the clearances as appropriate.

2.2 Take-off and climb

The QNH value for the altimeter setting is normally transmitted in the ATIS broadcast, or is advised in start-up clearance as appropriate.

2.3 Vertical separation - en route**2.3.1 Terrain clearance**

- The QNH altimeter setting and temperature information are included in routine reports for use in determining adequate terrain clearance. These data are transmitted normally in ATIS and VOLMET broadcasts and are also available on request from ATIS units.
- ATC units determine the lowest usable flight level for the whole of the part of the control area for which they are responsible, use it when assigning flight levels and pass it to pilots on request.

Note: The objectives of the ATC services as prescribed in ICAO Annex 11, do not include the prevention of collision with terrain. The procedures prescribed above do not, therefore, relieve the pilots' of their responsibility of ensuring that any clearances issued by ATC units are safe in the respect, except when an IFR flight is vectored by radar.

- c. When vectoring an IFR flight, the radar controller shall ensure adequate terrain clearance at all times until the aircraft reaches the point at which the pilot will resume his/her own navigation.

2.4 Approach and landing

2.4.1 A QNH value is normally transmitted in the ATIS broadcast and/or is advised in approach clearances and/or in clearances to enter the traffic circuit, as appropriate.

2.4.2 A QFE value - clearly identified as such - is available on pilots' request in approach and landing clearances.

The QFE value given in clearances of ATC units shall be related to the threshold elevation of the runway in use.

E.g.: QUEBEC - FOXTROT - ECHO FOR RUNWAY THREE - ONE - RIGHT IS NINER - NINER - TWO

Note: This does not preclude the use of the QFE altimeter setting by a pilot for terrain clearance purposes during the final approach.

2.4.3 The vertical positioning of aircraft during descent is controlled by reference to flight level until the Transition Level is reached, below which vertical positioning is controlled by reference to altitude.

2.4.4 The transition level shall be transmitted to ACFT on approach/descent before it is reached through air-ground voice communication, ATIS or datalink.

3. DESCRIPTION OF ALTIMETER SETTING REGION(S)

The QNH value determined for Budapest Liszt Ferenc International Airport is used as the "regional QNH" within the Budapest FIR.

The "local QNH" values are used within CTR and TIZ airspaces.

4. PROCEDURES APPLICABLE TO OPERATORS (INCLUDING PILOTS)

NIL

5. TABLE OF CRUISING LEVELS

From 000 degrees to 179 degrees						From 180 degrees to 359 degrees					
IFR Flights (*)			VFR Flights			IFR Flights (*)			VFR Flights		
Level			Level			Level			Level		
FL	Feet	Metres	FL	Feet	Metres	FL	Feet	Metres	FL	Feet	Metres
			35	3 500	1 050	40	4 000	1 200	45	4 500	1 350
50	5 000	1 500	55	5 500	1 700	60	6 000	1 850	65	6 500	2 000
70	7 000	2 150	75	7 500	2 300	80	8 000	2 450	85	8 500	2 600
90	9 000	2 750	95	9 500	2 900	100	10 000	3 050	105	10 500	3 200
110	11 000	3 350	115	11 500	3 500	120	12 000	3 650	125	12 500	3 800
130	13 000	3 950	135	13 500	4 100	140	14 000	4 250	145	14 500	4 400
150	15 000	4 550	155	15 500	4 700	160	16 000	4 900	165	16 500	5 050
170	17 000	5 200	175	17 500	5 350	180	18 000	5 500	185	18 500	5 650
190	19 000	5 800	195	19 500	5 950	200	20 000	6 100	205	20 500	6 250
210	21 000	6 400	215	21 500	6 550	220	22 000	6 700	225	22 500	6 850
230	23 000	7 000	235	23 500	7 150	240	24 000	7 300	245	24 500	7 450
250	25 000	7 600	255	25 500	7 750	260	26 000	7 900	265	26 500	8 100
270	27 000	8 250	275	27 500	8 400	280	28 000	8 550	285	28 500	8 700
290	29 000	8 850				300	30 000	9 150			
310	31 000	9 450				320	32 000	9 750			
330	33 000	10 050				340	34 000	10 350			
350	35 000	10 650				360	36 000	10 950			
370	37 000	11 300				380	38 000	11 600			
390	39 000	11 900				400	40 000	12 200			
410	41 000	12 500				430	43 000	13 100			
450	45 000	13 700				470	47 000	14 350			
490	49 000	14 950				510	51 000	15 550			
etc.	etc.	etc.				etc.	etc.	etc.			

(*) See ENR 1.3.1.3

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