

## ENR-3 ALTIMETER SETTING PROCEDURES

### 3.1 General

These procedures apply to all flights. Exceptions and conditions may be determined by appropriate ATS unit.

Procedures describe the method for providing adequate vertical separation between aircraft and for providing required terrain clearance during all phases of a flight. This method is based on the following provisions:

#### 3.1.1 Transition altitude (TA)

Transition altitude is the altitude at or below which the vertical position of an aircraft is controlled by reference to altitudes. The transition altitude within all FIR is 5000 ft (1500 m) AMSL, except as stated below.

Outside TMA in mountainous areas where terrain exceeds 4000 ft (1200 m) AMSL, the transition altitude for all VFR flights and for IFR flights outside ATS routes is increased to an altitude identical to the height 1000 ft (300 m) AGL.

#### 3.1.2 Transition level (TL)

Transition level is the lowest flight level available for use, located at least 1000 ft (300 m) above the transition altitude.

#### 3.1.3 Transition layer

The airspace between the transition level and the transition altitude is called the transition layer. En-route horizontal flight is not permitted within the transition layer except especially approved activities (see AIP CR ENR 1.7.2.1). Minimum depth of transition layer is set to 1000 ft (300 m) in accordance with ICAO Doc. 7030/5.

### 3.2 References to the vertical position

#### 3.2.1 The vertical position of aircraft shall be expressed in terms of:

- a) flight levels for flight at or above the transition level;
- b) altitudes for flight at or below transition altitude;
- c) heights above the ground for en-route flight up to 1000 ft (300 m) above the ground;

#### 3.2.2 While passing through the transition layer, vertical position shall be expressed in terms of:

- a) flight levels when climbing; and
- b) altitude when descending.

### 3.3 The change in reference from altitude to flight levels and vice versa

The change in reference from altitude to flight levels and vice versa is made:

- a) at the transition altitude when climbing; and
- b) at the transition level when descending.

### 3.4 Description of altimeter setting region and procedures for pilots

#### 3.4.1 During flight at or below the transition altitude the following pressure shall be set on altimeters for the areas listed below:

- Within the CTR - QNH of the applicable controlled aerodrome

- Within the TMA or below the TMA - QNH of the specified aerodrome
- Within the ATZ whose upper limit or its part is identical with lower limit of TMA - QNH of the specified aerodrome
- Within the ATZ laying completely or partially below a TMA, but without a direct border with the TMA - QNH of the applicable uncontrolled aerodrome\* otherwise QNH of the specified aerodrome
- In other ATZ - QNH of the applicable uncontrolled aerodrome\* otherwise regional QNH
- In other cases - regional QNH

"QNH of the specified aerodrome" for the purpose of TMA is:

- TMA Brno - QNH LKTB
- TMA České Budějovice - QNH LKCS
- TMA Karlovy Vary - QNH LKKV
- TMA Ostrava - QNH LKMT
- TMA Praha - QNH LKPR
- TMA Vodochody - QNH LKVO
- MTMA Čáslav - QNH LKCV
- MTMA Kbely - QNH LKKB
- MTMA Náměšř - QNH LKNA
- MTMA Pardubice - QNH LKPD

In case of more overlapping TMAs, pilot flying below such TMAs shall use the QNH of the lowest TMA.

*\* Note: if the "AFIS" or the "information to known traffic" units are operational.*

The airspace area below the TMA lower limit defined by AMSL is depicted in the "TMA with lower limit defined by AMSL" chart.

- 3.4.2 Information on the aerodrome QNH, temperature and transition level in TMA is provided in ATIS broadcasts or transmitted by the appropriate ATS unit. Regional QNH is provided in MET broadcasts and is available on request from the ATS units.
- 3.4.3 QNH values are given in hectopascals. QNH in millimetres Hg is provided on request. Minimum flight altitudes are published in appropriate charts.
- 3.4.4 VFR flights up to an altitude of 5000 ft (1500 m) AMSL or up to a height 1000 ft (300 m) AGL, if this level exceeds 5000 ft (1500 m) AMSL, shall set the altimeter to the QNH in accordance with paragraph 3.4.1.
- 3.5 Flight planning
- Levels at which a flight is to be conducted shall be specified in a flight plan:
- a) flight levels for flight at or above the lowest usable flight level or above transition altitude;
  - b) altitudes for flight at transition altitude or below;
  - c) abbreviation VFR for uncontrolled VFR flights.
- 3.6 Procedures in controlled airspace
- 3.6.1 If a VFR flight within controlled airspace is cleared by ATC to an altitude which the pilot finds unacceptable he/she shall request an alternative altitude. If such a request is not

received ATC will consider that the clearance has been accepted and will be complied with.

### 3.6.2 Vertical separations

Vertical separation from IFR flights is provided within controlled airspace Class C by assignment of different levels. ATC unit may clear VFR flight to level which is specified for IFR flight.

### 3.7 Table of cruising levels

All en-route VFR flights shall be operated in VFR cruising levels corresponding to the flown track according to table of cruising levels stated below. However ATC unit providing service in controlled airspace may also assign level that is specified for IFR flights.

Table of cruising levels											
Magnetic track											
from 000° to 179°						from 180° to 359°					
IFR			VFR			IFR			VFR		
FL	m	ft	FL	m	ft	FL	m	ft	FL	m	ft
-	900	3000	-	1050	3500	-	1200	4000	-	1350	4500
50	1500	5000	55	1700	5500	60	1850	6000	65	2000	6500
70	2150	7000	75	2300	7500	80	2450	8000	85	2600	8500
90	2750	9000	95	2900	9500	100	3050	10000	105	3200	10500
110	3050	11000	115	3500	11500	120	3650	12000	125	3800	12500
130	3950	13000	135	4100	13500	140	4250	14000	145	4400	14500
150	4550	15000	155	4700	15500	160	4900	16000	165	5050	16500
170	5200	17000	175	5350	17500	180	5500	18000	185	5650	18500
190	5800	19000	-	-	-	-	-	-	-	-	-

### 3.8 Transition levels according to the current QNH

QNH in hPa	Transition level
≥ 1051	50
1014-1050	60
978-1013	70
≤ 977	80

Chapter end

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