

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 QNH shall be set as follows:

- a) QNH of the controlled aerodrome

- within CTR, TMA and within such an ATZ whose upper limit or its part is identical with lower limit of TMA,
- below the TMA lower limit which is defined by altitude (AMSL)*.

*Note 1: * Lower limit of TMA defined by altitude (AMSL) is always related to the QNH of the controlled aerodrome to which TMA belongs.*

*Note 2: * It concerns flights in the airspace just below the lower limit of TMA, during which it could come to unintended and undesirable penetration of TMA or which could cause an improper pressure altitude data display on the ATS surveillance systems, when the pressure is set up incorrectly.*

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

- b) regional QNH or QNH of the nearest uncontrolled aerodrome
 - in other cases.

Note: Regional QNH is a forecast of the QNH minimum value within FIR Praha for a specified time period.

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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