# **ENR 1.7 ALTIMETER SETTING PROCEDURES**

## 1. INTRODUCTION

- 1.1 The altimeter setting procedures in use generally conform to those contained in ICAO Doc 8168 Vol. 1 Part 6 and are given in full below. Differences to these provisions are detailed in subsection GEN 1.7.
- 1.1.2 Transition altitudes are given on the instrument approach charts.
- 1.1.3 No aircraft should therefore flight plan to cruise at altitudes 11500FT, 12000FT and 12500FT when operating in the Kota Kinabalu FIR.

### 2. BASIC ALTIMETER PROCEDURES

## 2.1 Altimeter Setting Procedures

- 2.1.1 For flight at or below the transition alltitude, within the lateral limits of Brunei CTR/TMA, the Altimeter.
- 2.1.2 Change from LOCAL QNH (set for departure) to AREA QNH will made on leaving the TMA Or CTR after take-off.
- 2.1.3 Change from AREA QNH to LOCAL QNH will be on entering the TMA or CTR.
- 2.1.4 For flight and above the transition level: the standard altimeter setting of 1013.2hPa will be used.
- 2.1.5 Change from AREA QNH to 1013.2hPa will be made on climbing through the transition altitude.
- 2.1.6 Change from 1013.2hPa to AREA QNH will be made on descent through the transition level.
- 2.1.7 Cruising within the transition layer is not permitted unless specifically cleared by the Area Control Centre of the FIR.
- 2.1.8 Vertical displacement of aircraft when at or below the transition altitude is expressed in terms of altitude whereas such displacement at or above the transition level is expressed in terms of flight level. While passing through the transition layer, vertical displacement is expressed in terms of altitude when descending and in flight levels when ascending.

Note: Examples of the relationship between flight levels and altimeter indications are the Following table, the metric equivalent being approximate.

Flight level	Altimeter indication	
	Feet	Meters
130	13000	3950
150	15000	4550
200	20000	6100
250	25000	7600
300	30000	9150
350	35000	10650
400	40000	12200
450	45000	13700
500	50000	15250

#### 3. TAKE-OFF AND CLIMB

- 3.1.1 A QNH altimeter setting shall be made available to aircraft by Approach/Aerodrome Control in the routine take-off and climb instructions.
- 3.1.2 Vertical displacement of aircraft during climb shall be effected by reference to altitudes until reaching the transition altitude above which vertical displacement shall be effected by reference to flight levels.
- 3.1.3 A QFE altimeter setting will be made available on request but reports to ATC are to be made in altitudes.

### 4. VERTICAL SEPARATION - ENROUTE

- 4.1.1 Aircraft en-route in the Kota Kinabalu (irrespective whether IFR or VFR) shall be flown at flight levels or altitudes where appropriate.
- 4.1.2 It is the pilots' responsibility to select a flight level, which will give adequate terrain clearance using forecast pressure information.
- 4.1.3 For the purposes of en-route vertical separation of IFR and VFR flights within controlled airspace and flights in uncontrolled airspace of the Kota Kinabalu FIR, reference should be made to the following:
  - a) Semi-circular system of cruising levels within all controlled airspace (IFR flights);
  - b) VFR flights cruising levels up to FL 150 within controlled airspace;
  - c) Quadrennial cruising levels in uncontrolled airspace of the Kota Kinabalu FIR.

## 5. APPROACH AND LANDING

- 5.1.1 A QNH altimeter setting shall be made available in the routine approach and landing instructions
- 5.1.2 A QFE altimeter setting will be made available on request but reports to ATC are to be made in altitude.
- 5.1.3 Vertical displacement of aircraft during approach is effected by reference to flight levels until reaching the transition level below which vertical displacement is controlled by reference to altitude.

## 6. MISSED APPROACH

6.1.1 The relevant portions of para 2.1, 3, 4 and 5 shall be applied in case of a missed approach.

# 7. PROCEDURES APLLICABLE TO OPERATORS AND PILOTS

- 7.1.1 Flight Planning
- 7.1.2 The levels (s) at which a flight is to be conducted shall be specified in a flight plan;
  - (a) In terms of flight level (s) if the flight is to be conducted at or above the transition level, and
    - (b) In terms of altitudes (s) if the flight is to be conducted in the vicinity of an aerodrome and at below the transition altitude.
      - Note 1: Short flights in the vicinity of an aerodrome may often be conducted only at altitudes below the transition altitude.
      - Note2: Flight levels are specified in a plan by number, and not in terms of feet, as is the case with altitudes.

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