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**ENR 1.8 REGIONAL SUPPLEMENTARY PROCEDURES (DOC 7030)****1 WEATHER DEVIATION PROCEDURES****1.1 Introduction**

1.1.1 RNP10 airspace has been designated within Oceanic Control Areas across the Bay of Bengal and Arabian Sea, as part of the revised ATS route structure - Asia to/from Europe/Middle East South of the Himalayas (EMARSSH Project) and also over the South China Sea.

1.1.2 The following procedures are intended to provide guidance for weather deviations in the Oceanic - controlled airspace of the Bay of Bengal and the Arabian Sea, where the lateral separation between ATS routes within RNP airspace is 50 NM. Over the South China Sea the lateral separation between ATS routes is 60 NM.

**1.2 General**

1.2.1 The procedures are intended to enhance ICAO Regional Supplementary Procedures (DOC 7030). However it must be recognised that all possible circumstances cannot be covered. The pilots judgement shall ultimately determine the sequence of actions taken and ATC shall render all possible assistance.

1.2.2 If an aircraft is required to deviate from track to avoid weather and prior clearance cannot be obtained, an ATC clearance shall be obtained at the earliest possible time.

1.2.3 The pilot shall advise ATC when weather deviation is no longer required or when a weather deviation has been completed and the aircraft has returned to its cleared track.

**2 KUALA LUMPUR FIR WEATHER DEVIATION PROCEDURES****2.1 Obtaining Priority From ATC When Weather Deviation Is Required**

2.1.1 When the pilot initiates communications with ATC, rapid response may be obtained by stating "**WEATHER DEVIATION REQUIRED**" to indicate that priority is desired on the frequency and for ATC response.

2.1.2 The pilot still retains the option of initiating the communications using the urgency call "**PAN PAN**" (preferably spoken three times) to alert all listening parties to a special handling condition which will receive ATC priority for issuance of a clearance or assistance.

**2.2 Actions To Be Taken : Pilot-Controller Communications Are Established**

2.2.1 The pilot notifies ATC and requests clearance to deviate from track, advising, when possible, the extent of the deviation expected.

2.2.2 ATC takes one of the following actions :

- a) if there is no conflicting traffic in the horizontal plane, ATC will issue clearance to deviate from track; or
- b) if there is conflicting traffic in the horizontal plane, ATC separates aircraft by establishing appropriate separation; or
- c) if there is conflicting traffic in the horizontal plane and ATC is unable to establish appropriate separation, ATC shall:
  - i) advise the pilot of inability to issue clearance for required deviation;
  - ii) advise the pilot of conflicting traffic; and
  - iii) request the pilot's intentions.

**SAMPLE PHRASEOLOGY**

*"UNABLE (requested deviation), TRAFFIC IS (call sign, position, level, direction), ADVISE INTENTIONS"*

2.2.3 The pilot will take the following actions :

- a) advise ATC of intentions; and
- b) comply with the ATC clearance issued; or
- c) execute the procedures in para 2.3 below; and
- d) if necessary, establish voice communications with ATC to expedite dialogue on the situation.

### 2.3 Actions To Be Taken : If A Revised ATC Cannot Be Obtained

2.3.1 The provisions of this section apply to situations where a pilot has the need to exercise the authority of a pilot-in-command under the provisions of Annex 2, 2.3.1

2.3.2 If a revised ATC clearance cannot be obtained and deviation from track is required to avoid weather, the pilot shall take the following actions:

- a) establish communications with and alert nearby aircraft, broadcasting at suitable intervals-aircraft identification, flight level, position, ATS route designator and intentions, on the frequency in use and on frequency 121.5 MHz (or, as a back-up, on the VHF inter-pilot air-to-air frequency 123.45);
- b) watch for conflicting traffic both visually and by reference to ACAS/TCAS;
- c) turn on all aircraft exterior lights (commensurate with appropriate operating limitations);
- d) for deviations of less than 10 NM aircraft should remain at a level assigned by ATC;
- e) for deviations of greater than 10 NM, when the aircraft is approximately 10 NM from track, initiate a level change based on the following criteria:

Route centre line track	Deviations greater than 10 NM	Level change
EAST 000-179 Mag	LEFT RIGHT	DESCEND 300 FT CLIMB 300 FT
WEST 180-359 Mag	LEFT RIGHT	CLIMB 300 FT DESCEND 300 FT

**Note:** If, as a result of actions taken under the provisions of 2.4.2 a) and b) above the pilot determines that there is another aircraft at or near the same flight level with which a conflict may occur, then the pilot is expected to adjust the path of the aircraft, as necessary, to avoid conflict.

- f) when returning to track, be at its assigned flight level, when the aircraft is within approximately 10 NM of centre line; and
- g) if contact was not established prior to deviating, continue to attempt to contact ATC to obtain a clearance.
- h) If contact was established, continue to keep ATC advised of intentions and obtain essential traffic information.

## 3 KOTA KINABALU FIR WEATHER DEVIATION PROCEDURES

### 3.1 Obtaining ATC Priority When Weather Deviation Is Required

3.1.1 When the pilot initiates communications with ATC, rapid response may be obtained by stating that **"WEATHER DEVIATION IS REQUIRED"** to indicate that priority is desired on the frequency and for ATC response.

3.1.2 The pilot also retains the option of initiating the communication using the urgency call **"PAN-PAN"** 3 times to alert all listening parties of a special handling condition which will receive ATC priority for issuance of a clearance or assistance.

**3.2 Actions To Be Taken : Pilot-Controller Communications Are Established**

3.2.1 When two-way pilot-controller communications are in effect, and a pilot identifies the need to deviate from track to avoid weather, the pilot shall notify ATC and request clearance to deviate from track, advising where possible the extent of the deviation expected.

3.2.2 ATC will then take one of the following actions :

- a) if there is no conflicting traffic in the lateral dimension ATC shall issue clearance to deviate from track ;
- b) if there is conflicting traffic in the lateral dimension, ATC shall separate aircraft by establishing vertical separation (2,000 FT above FL290 or 1,000 FT below FL290) and issue a clearance to deviate from track ;
- c) if there is conflicting traffic in the lateral dimension and ATC is unable to establish vertical separation, ATC shall advise the pilot and provide information on all other aircraft with which the aircraft could potentially conflict.

3.2.3 The pilot shall comply with the ATC clearance issued for the deviation or, if ATC is unable to issue a revised clearance, and after evaluating the circumstances of the situation, the pilot shall execute the procedures detailed in paragraph 1.4 below. The pilot shall immediately inform ATC of intentions and ATC will issue Essential Traffic Information to all affected aircraft.

3.2.4 The pilot shall, at regular intervals, update ATC of the extent and progress of the deviation to ensure separation applied is not infringed or to enable ATC to update essential traffic information.

**3.3 Actions To Be Taken : Pilot-Controller Communication Not Established Or Revised ATC Clearance Not Available**

3.3.1 If contact cannot be established, or a revised ATC clearance is not available and deviation from track is required to avoid weather, the pilot shall take the following actions :

- a) deviate away from an organised track or route system, if possible ;
- b) broadcast aircraft position and intentions on frequency 121.5 MHz at suitable intervals stating :
  - flight identification (operator call sign) ;
  - flight level ;
  - track code or ATS route designator, and
  - extent of deviation expected.
- c) watch for conflicting traffic both visually and by reference to TCAS (if equipped) ;
- d) turn on aircraft's exterior lights ;
- e) when the aircraft is approximately 10NM off-track from centreline initiate a level change based on the following criteria :
  - i) Eastbound between 000 - 179 degrees magnetic if deviating left of centreline descend 500 FT. If deviating right of centreline climb 500 FT ;
  - ii) Westbound between 180 - 359 degrees magnetic if deviating left of centreline climb 500 FT. If deviating right of centreline descent 500 FT ;
- f) when returning to track, be established at the assigned flight level or altitude, when the aircraft is within approximately 10NM track ;
- g) if contact is not established prior to deviating, continue to attempt to contact ATC to obtain a clearance. If contact is established, continue to keep ATC advised of intentions and obtain essential traffic information.