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Following supplement is issued for information, guidance and necessary action.

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[EFFECTIVE DATE: 12 AUG 2021]

AMENDMENTS TO ENR 1.9 (AIR TRAFFIC FLOW MANAGEMENT AND AIRSPACE MANAGEMENT) OF eAIP INDIA

The purpose of this AIP Supplement is to inform all stakeholders regarding the Amendment to eAIP ENR 1.9 ATFM and Airspace Management, para 15.8 and 15.9.

15.8. Special procedures for in-flight contingencies in oceanic airspace of Chennai, Kolkata and Mumbai FIR.

15.8.1. Introduction

15.8.1.1. Although all possible contingencies cannot be covered, the procedures in 15.8.2, 15.8.3 and 15.9 provide for the more frequent cases such as:

i) The inability to comply with assigned clearance due to meteorological conditions, (refer 15.9);

ii) En-route diversion across the prevailing traffic flow (for example, due to medical emergencies (refer 15.8.2 and 15.8.3); and

iii) Loss of, or significant reduction in, the required navigation capability when operating in an airspace where the navigation performance accuracy is a prerequisite to the safe conduct of flight operations, or pressurization failure (refer 15.8.2 and 15.8.3);

15.8.1.2. The pilot shall take action as necessary to ensure the safety of the aircraft, and the pilot's judgment shall determine the sequence of actions to be taken, having regard to the prevailing circumstances. Air traffic control shall render all possible assistance.

15.8.2. General procedures

15.8.2.1 If an aircraft is unable to continue flight in accordance with its air traffic control clearance and/or an aircraft is unable to maintain the navigation performance accuracy specified for the airspace, a revised clearance shall be obtained, whenever possible, prior to initiating any action.

15.8.2.2 If prior clearance cannot be obtained, the following contingency procedures should be employed until a revised clearance is received. In general terms, the aircraft should be flown at an offset level and on an offset track where other aircraft are less likely to be encountered. Specifically, the pilot shall-

15.8.2.2.1 Leave the cleared track or ATS route by initially turning 30 DEG to the right or to the left, in order to establish and maintain a parallel, same direction track or ATS route offset 5.0 NM. When possible the direction of the turn should be determined by the position of the aircraft relative to any organized route or track system. The direction of the turn should be based on one or more of the following factors:

i. aircraft position relative to any organized track or ATS route system;
ii. the direction of flights and flight levels allocated on adjacent tracks;
iii. the direction to an alternate airport,
iv. any strategic lateral offset being flown, and
v. terrain clearance;

15.8.2.2.2 Maintain a watch for conflicting traffic both visually and by reference to ACAS (if equipped), leaving ACAS in RA mode at all times, unless aircraft operating limitations dictate otherwise;

15.8.2.2.3 Establish communications with and alert nearby aircraft by broadcasting, on the frequencies in use and at suitable intervals on 121.5 MHz (or, as a backup, on the inter-pilot air-to-air frequency 123.45 MHz): aircraft identification, the nature of the distress condition, intention of the pilot, position (including the ATS route designator or the track code, as appropriate) and flight level and

15.8.2.2.4 Maintain a watch for conflicting traffic visually and by reference to ACAS (if equipped), leaving ACAS in RA mode at all times, unless aircraft operating limitations dictate otherwise;

15.8.2.2.5 Turn on all aircraft exterior lights (commensurate with appropriate operating limitations);

15.8.2.2.6 Keep the SSR transponder on at all times and, when able, squawk 7700, as appropriate and, if equipped with ADS-B or ADS-C, select the appropriate emergency functionality;

15.8.2.2.7 As soon as practicable, advise air traffic control of any deviation from their assigned clearance;

15.8.2.2.8 Use means as appropriate (i.e. voice and/or CPDLC) to communicate during a contingency or emergency;

15.8.2.2.9 If voice communication is used, the radiotelephony distress signal (MAYDAY) or urgency signal (PAN PAN) preferably spoken three times, shall be used, as appropriate;

15.8.2.2.10 When emergency situations are communicated via CPDLC, the controller may respond via CPDLC. However, the controller may also attempt to make voice contact with the aircraft;

Note— Guidance on emergency procedures for controllers, radio operators, and flight crew in data link operations can be found in the Global Operational Data Link (GOLD) Manual (Doc 10037).

15.8.2.2.11 The controller should attempt to determine the nature of the emergency and ascertain any assistance that may be required. Subsequent ATC action with respect to that aircraft shall be based on the intentions of the pilot and overall traffic situation.

15.8.3 **Actions to be taken once offset from track**

Note. — The pilot's judgement of the situation and the need to ensure the safety of the aircraft will determine the actions outlined to be taken. Factors for the pilot to consider when deviating from the cleared track or ATS route or level without an ATC clearance include, but are not limited to:

a) operation within a parallel track system;

b) the potential for user preferred routes (UPRs) parallel to the aircraft's track or ATS route;

c) the nature of the contingency (e.g. aircraft system malfunction); and

d) weather factors (e.g. convective weather at lower flight levels).

15.8.3.1 If possible, maintain the assigned flight level until established on the 5.0 NM parallel, same direction track or ATS route offset. If unable, initially minimize the rate of descent to the extent that is operationally feasible.

15.8.3.2 Once established on a parallel, same direction track or ATS route offset by 5.0 NM, either:

a) descend below FL 290, and establish a 500 ft vertical offset from those flight levels normally used, and proceed as required by the operational situation or if an ATC clearance has been obtained, in accordance with the clearance; or

Note 1. — Flight levels normally used are those contained in Annex 2 — Rules of the Air*, Appendix 3.*

Note 2. — Descent below FL 290 is considered particularly applicable to operations where there is a predominant traffic flow (e.g. east-west) or parallel track system where the aircraft's diversion path will likely cross adjacent tracks or ATS routes. A descent below FL 290 can decrease the likelihood of conflict with other aircraft, ACAS RA events and delays in obtaining a revised ATC clearance.

b) establish a 500 ft vertical offset (1000 ft vertical offset if above FL 410) from those flight levels normally used, and proceed as required by the operational situation, or if an ATC clearance has been obtained, in accordance with the clearance.

Note— Altimetry system errors (ASE) may result in less than 150 m (500 ft) vertical spacing (less than 300 m (1000 ft) above FL410) when the above contingency procedure is applied.

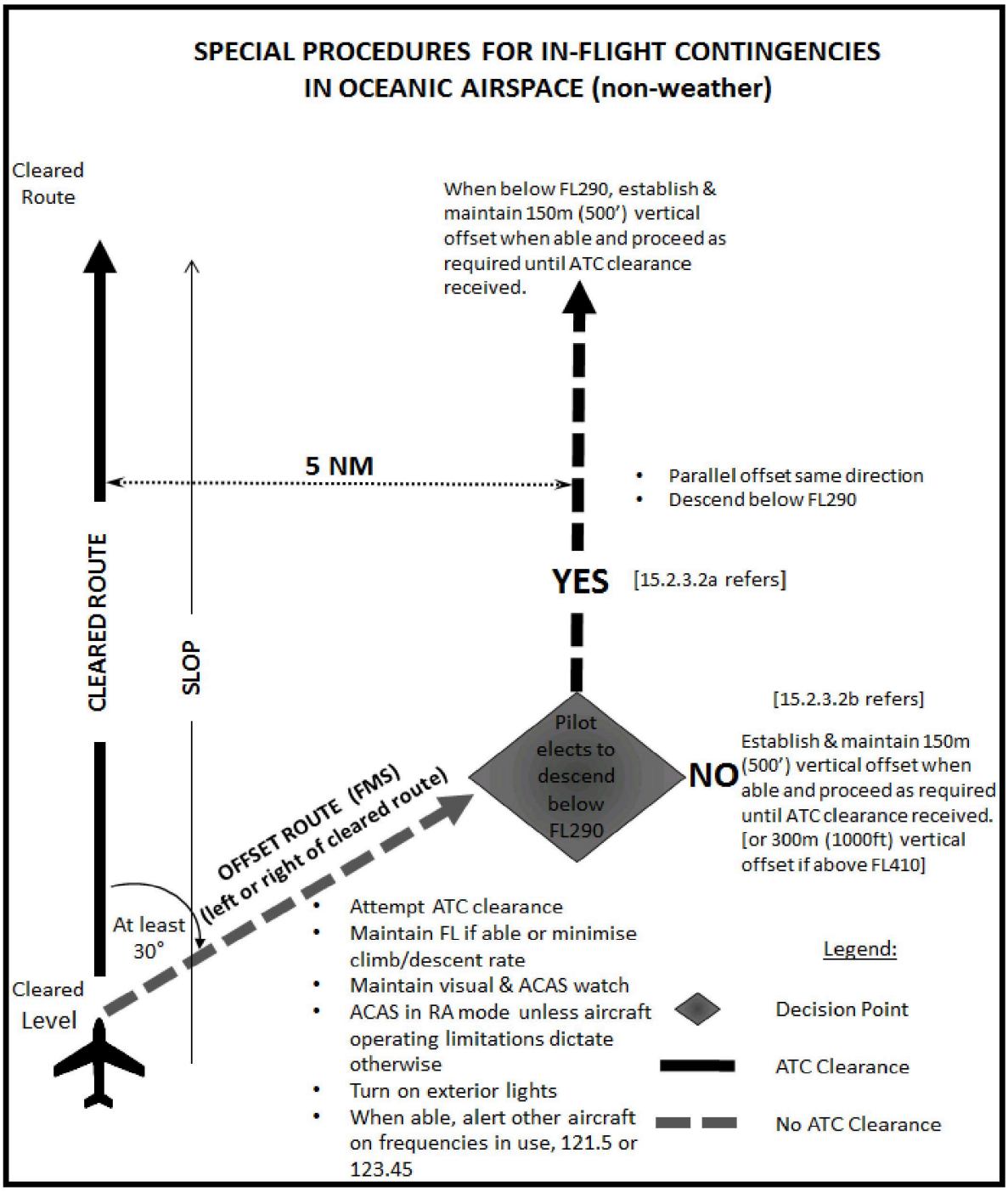

Figure 1 - Visual aid for contingency procedures guidance

15.9 Weather deviation procedure

15.9.1 General

Note— The following procedures are intended for deviations around adverse meteorological condition.

15.9.1.1 When weather deviation is required, the pilot should initiate communications with ATC, via voice or CPDLC. A rapid response may be obtained by either:

a) stating 'WEATHER DEVIATION REQUIRED' to indicate that priority is desired on the frequency and for ATC response; or

b) requesting a weather deviation using a CPDLC lateral downlink message.

15.9.1.2 When necessary, the pilot should initiate the communications using the urgency call 'PAN-PAN' (preferably spoken three times) or by using a CPDLC urgency downlink message.

15.9.1.3 The pilot shall inform ATC when weather deviation is no longer required, or when a weather deviation has been completed and aircraft has returned to its cleared route.

15.9.2 Actions to be taken when controller-pilot communications are established

15.9.2.1 The pilot should notify ATC and request clearance to deviate from track, or ATS route, advising, when possible, the extent of the deviation requested. The flight crew will use whatever means are appropriate (i.e. voice and/or CPDLC) to communicate during a weather deviation.

Note- Pilots are advised to contact ATC as soon as possible with requests for clearance in order to provide adequate time for the request to be assessed and acted upon.

15.9.2.2 ATC will take one of the following actions:

15.9.2.2.1 When appropriate separation can be applied, issue clearance to deviate from track; or

15.9.2.2.2 If there is conflicting traffic and ATC is unable to establish appropriate separation ATC shall:

i) advise the pilot of inability to issue clearance for requested deviation;

ii) advise the pilot of conflicting traffic, and

iii) request the pilot's intentions.

15.9.2.3 The pilot should take the following actions:

15.9.2.3.1 Comply with air traffic control clearance issued; or

15.9.2.3.2 Advise ATC of intentions and execute the procedures detailed in para 15.9.3 below.

15.9.3 Actions to be taken if a revised air traffic control clearance cannot be obtained

NOTE— The provision of this section apply to situations where a pilot needs to exercise the authority of pilot-in command under the provisions of Annex 2, Para 2.3.1.

15.9.3.1 If the aircraft is required to deviate from track or ATS route to avoid adverse meteorological conditions and prior clearance cannot be obtained, an ATC clearance shall be obtained at the earliest possible time. Until an ATC clearance is received the pilot shall take the following actions:

i) if possible, deviate away from an organized track or ATS route system;

ii) establish communications with and alert nearby aircraft by broadcasting, at suitable intervals: aircraft identification, flight level, position (including the ATS route designator or the track code) and intentions, on the frequency in use and on 121.5MHz (or, as a backup, on the inter - pilot air-to-air frequency 123.45MHz).

iii) watch for conflicting traffic both visually and by reference to ACAS (if equipped);

iv) turn on all aircraft exterior lights (commensurate with appropriate operating limitations);

v) for deviations of less than 5.0 NM from the originally cleared track or ATS route, remain at a the level assigned by ATC;

vi) for deviations of greater than, or equal to 5.0 NM, from the originally cleared track or ATS route, when the aircraft is approximately 5.0 NM from track, initiate a level change in accordance with table given below;

Originally cleared track or ATS route centreline	**Deviations ≥5.0 NM**	**Level change**
EAST ($000^0 – 179^0$) magnetic	LEFT	DESCEND 300 ft
	RIGHT	CLIMB 300 ft
WEST ($180^0 – 359^0$) magnetic	LEFT	CLIMB 300 ft
	RIGHT	DESCEND 300 ft

vii) if the pilot receives clearance to deviate from cleared track or ATS route for a specified distance and, subsequently, requests, but cannot obtain a clearance to deviate beyond that distance, the pilot should apply an altitude offset in accordance with above Table before deviating beyond the cleared distance;

viii) when returning to track or ATS route, be at its assigned flight level, when the aircraft is within approximately 5.0 NM of the centreline, and

ix) if contact was not established prior to deviating, continue attempt to contact ATC to obtain a clearance. If contact was established, continue to keep ATC advised of intentions and obtain essential traffic information.

Note— If, as a result of actions taken under the provisions of 15.9.3.1, 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.

15.9.4 Strategic Lateral Offset Procedures (SLOP)

Note— SLOP are approved procedures that allow aircraft to fly on a parallel track to the right of the centre line relative to the direction of flight to mitigate the lateral overlap probability due to increased navigation accuracy and wake turbulence encounters.

15.9.4.1 By using offsets to provide lateral spacing between aircraft, the effect of reduction in the magnitude of random lateral deviations (due to the increased capability of flights to adhere to the centreline of ATS Routes) can be mitigated, thereby reducing the risk of collision.

15.9.4.2 The Strategic Lateral Offset Procedures (SLOP) are applicable only within Oceanic airspace in Chennai, Kolkata and Mumbai FIRs beyond TMA/CTA/CTR.

15.9.4.3 Strategic lateral offsets shall be applicable only in Oceanic airspace, as mentioned in Para 15.9.4.2, and as follows:

i) where the lateral separation minima or spacing between route centre lines is 15 NM or more, offsets to the right of the centre line relative to the direction of flight in tenths of a nautical mile up to a maximum of 2 NM; and

ii) where the lateral separation minima or spacing between route centre lines is 10 NM or more and less than 15 NM, while one aircraft climbs/descends through the level of another aircraft, offsets to the right of the centre line relative to the direction of flight in tenths of a nautical mile up to a maximum of 2 NM; and

iii) where the lateral separation minima or spacing between route centre lines is 6 NM or more and less than 15 NM, offsets to the right of the centre line relative to the direction of flight in tenths of a nautical mile up to a maximum of 0.5 NM.

15.9.4.4 The decision to apply a strategic lateral offset shall be the responsibility of the flight crew. The flight crew shall only apply strategic lateral offsets in airspace where such offsets have been authorized by the appropriate ATS authority and when the aircraft is equipped with automatic offset tracking capability.

Note 1— Pilots may contact other aircraft on the inter-pilot air-to-air frequency 123.45 MHz to coordinate offsets.

Note 2— The strategic lateral offset procedure has been designed to include offsets to mitigate the effects of wake turbulence of preceding aircraft. If wake turbulence needs to

be avoided, an offset to the right and within the limits specified in 15.9.4.3 may be used.

Note 3— Pilots are not required to inform ATC that a strategic lateral offset is being applied.

15.9.4.5 Aircraft transiting areas of surveillance coverage in airspace where offset tracking is permitted may initiate or continue an offset, only with the approval of the concerned ATS unit. ATC may require aircraft to cancel SLOP and return to the centre line of the route for application of lateral separation.

15.9.4.6 Flight crew of aircraft following SLOP shall be responsible to avoid Prohibited, Danger and Restricted areas and other special use airspaces along the route being flown.

AMENDMENT:

1. **Amend** para 15.8 and 15.9 in ENR 1.9 of eAIP India accordingly.