



ICAO

TENTH MEETING OF THE REGIONAL AVIATION SAFETY GROUP -
ASIA PACIFIC REGIONAL (RASG-APAC/10)

(Bangkok, Thailand, 17-18 December 2020 on Virtual Platform)

RASG-APAC/10-WP/25

Agenda Item 5

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ICAO / Member State / Industry Presentations

FDM MONITORING AND STANDARDISATION
OF THE PARAMETERS/FDM EVENTS

(Presented by India)

SUMMARY

1. ICAO Annex 6 requires that an aircraft operator, subject to maximum certificated take-off mass of an aircraft establishes and maintain a flight data analysis programme as part of its safety management system.
2. India has requirements in place to ensure that Aircraft Operators have Flight data Analysis programme in place.
3. To ensure uniformity in the exceedance values and corrective actions, India has standardized exceedance values/FDM events across certain aircraft type fleets.

1. INTRODUCTION

- Para 3.3.2 of ICAO Annex 6 Part I requires, “The operator of an aeroplane of a maximum certificated take-off mass in excess of 27 000 kg shall establish and maintain a flight data analysis programme as part of its safety management system”.
- Para 3.3.1 of ICAO Annex 6 Part I recommends, “The operator of an aeroplane of a certificated take-off mass in excess of 20 000 kg should establish and maintain a flight data analysis programme as part of its safety management system”.
- Para 1.3.1 of ICAO Annex 6 Part III Section II recommends, “the operator of a helicopter of a certified take-off mass in excess of 7 000 kg or having a passenger seating configuration of more than 9 and fitted with a flight data recorder should establish and maintain a flight data analysis programme as part of its safety management system”.
- Guidance on the establishment of flight data analysis programmes is included in the Manual on Flight Data Analysis Programmes (FDAP) (ICAO Doc 10000)
- DGCA CAR Section 5 Series F Part II contains requirements for establishing and maintaining flight data analysis programme by a service provider for supporting the implementation of their safety management system.
- The Civil Aviation Requirement stipulates that all operators equipped with DFDR, shall develop procedures, establish facilities and monitor DFDR/ QAR/ PMR data of all flights to determine exceedances in flight parameters from the stipulated limits as per the certificated take off mass category of an aircraft:
 - (a) Scheduled Operators of an aeroplane of certificated take off mass In excess of 20,000 Kgs
 - (b) Non Scheduled Operators of an aeroplane of certificated take off mass In excess of 27,000 Kgs
 - (c) Scheduled and Non-Scheduled operators of a helicopter of its certified take off mass In excess of 4,000 Kgs

- (d) In addition Scheduled / Non Scheduled operators engaged in operation of aeroplane of certified take off mass in excess of 5700 Kgs and equipped with DFDR shall analyse one DFDR for each aircraft per quarter.

2. DISCUSSION

2.1 The exceedance values prescribed in the requirements are generic to cater for all type of aircraft. Due to this there were differences in the grading of the exceedances depending upon the severity level by different operators causing difficulties in developing a standard database to identify Safety Hazards and categorize them as Soft, Medium & Severe.

2.2 For appropriate integration of the information gathered from the flight data analysis programme in State Safety Program and to ensure uniformity in detection of the exceedance, corrective actions, the exceedance values for a particular aircraft type have been standardised across the industry. The information obtained from the flight data analysis forms the backbone of State Safety Program and Airline Safety Management System.

2.3 The standardisation programme has involved active participations by the Airline operators and the process is being led by the regulator. During the process the existing exceedance programme and data of the service providers and operational complexities were reviewed and factored. The programme has so far covered A320 and B-737 types of aircraft which constitute majority of fleet in India.

2.4 The new guidelines has expanded the list of exceedances/FDM events and has made mandatory to monitor certain safety critical events like Long / Deep Landings which are precursors to Runway Excursion.

3. ACTION BY THE MEETING

3.1 The Meeting is invited to take note of the content of the paper.

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