



GOVERNMENT OF INDIA  
CIVIL AVIATION DEPARTMENT  
DIRECTOR GENERAL OF CIVIL AVIATION

AAC No. 3 of 2019  
Dated 13<sup>th</sup> February 2019

## **AIRWORTHINESS ADVISORY CIRCULAR**

F. No. 11-690/CAR Sec/I-VI(Pt)

**SUBJECT: Routine Readout and maintenance of Flight Data Recorders units installed on Aircraft.**

### **1. Introduction:**

- 1.1. CAR Section-2, Series I, Part V details the requirement for installation of Flight Data Recorders, Combination Recorders, Data link Recorders, Airborne Image Recording System and Aircraft Data Recording System on aircraft registered in India. Further, Para 8.3 of the CAR requires that Operational checks and evaluations of recordings from the flight recorder systems shall be conducted to ensure the continued serviceability of the recorders and procedure for inspection of flight recorder systems are given in Appendix-I of the above mentioned CAR..
- 1.2. Further, all scheduled operators and non-scheduled operators are required to monitor DFDR/ QAR/ PMR data to determine deficiencies/ shortcomings in the operation of the aircraft as per the requirements detailed in CAR Section 5 Series F Part II.
- 1.3. This advisory circular provides guidance for carrying out random sampling of DFDR data of aircraft operated by scheduled operator by DGCA. Further this circular also provides guidance for, monitoring and analysis of Flight Data recorders installed on other aircraft by DGCA.
- 1.4. It is important to note that this circular is for guidance purpose only and on its own does not change, create, amend or permit deviations from any regulatory requirements, nor does it establish minimum standards.

### **2. Action Required:**

- 2.1. In order to ensure that the recording integrity of Flight Data recorders units for

carrying out investigation of accidents / incidents and for monitoring the performance of aircraft systems and the performance of flight crew with regard to adherence to operation limitations given in the flight manual, the following action are required:

- a) All operators are required to carry out a Flight data recorders readout at their own or any approved facility as per the frequency given in this AAC for each serial number of the unit operated by them. Proper records are to be maintained for the readouts and evaluation carried out by the operator, which should be authenticated by the Quality Manager/responsible Manager for satisfactory recording and for completion of the specified hours of the FDR.
  
- b) One copy of each DFDR readout, after evaluation by the operator as required by para 2.1, may be forwarded to DGCA Hqrs, Aircraft Engineering Directorate, Technical Centre, Opposite Safdarjung Airport, New Delhi-110 003 for carrying out a confirmation test on the proper recording and calibration of FDR/DFDR. The readout should be clearly marked with the following information:
  - i. Model and the Serial number of the FDR/DFDR unit
  - ii. Registration marking and Type of the aircraft.
  - iii. Details of Flight Sector and Date,
  - iv. Details of Decoding Agency,
  - v. Number of Parameters recorded in FDR and number of Parameters submitted for evaluation,
  - vi. A confirmation by Continued Airworthiness Manager (CAM) that the FDR conforms to the requirements stipulated in CAR Section 2 Series I Part V.

2.2. While evaluating the readout, amongst other aspects, the following aspects should be checked:

- a) Recording of all parameters
- b) Continuity of Data
- c) Whether the parameters recorded are realistic for the particular phase of flight.
- d) Exceedance of critical parameters such as EGT, Engine RPM / vibration, Engine oil pressure, rate of climb/descent, 'g' values during cruise and landing, and any other parameter exceedance which may affect the safety of aircraft.

- 2.3. Whenever malfunctioning or unsatisfactory recording is observed during the in-house performance check, immediate corrective action should be taken by the Continued Airworthiness Manager (CAM) and proper record of removal and corrective action taken should be maintained.
3. All operators are advised to note that while proposing the periodicity, nature of maintenance and life of major components of FDR in the Aircraft Maintenance Program, the manufacturer recommendation should be followed. The life followed by other operators using similar type of unit by the same manufacturer should be considered to standardize life limitation in respect of equipments/components.

#### **4. Frequency of DFDR Monitoring:-**

##### **I. SCHEDULED OPERATORS**

DGCA officials may carry out Random sampling of flight data obtainable from the recorders (FDR) installed on various aircraft.

##### **II. NON SCHEDULED OPERATORS, GENERAL AVIATION OPERATORS AND PRIVATE OPERATORS:**

FDR monitoring frequency- 1 year

In addition DGCA officials may carry out Random milking from non-scheduled, General Aviation and Private Operators at any time of choice.

5. This supersedes Airworthiness Advisory Circular No. 02 of 2004 dated 4<sup>th</sup> October 2004.

Sd/  
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