



Alternative Means of Compliance with an Operations Requirement

The Belgian Civil Aviation Authority, on behalf of Belgium, approves the following AltMoC:

| Implementing rule(s) | CAT.IDE.A.190 |
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| <p>(a) The following aeroplanes shall be equipped with a flight data recorder (FDR) that uses a digital method of recording and storing data and for which a method of readily retrieving that data from the storage medium is available:</p> <ol style="list-style-type: none">(1) aeroplanes with an MCTOM of more than 5 700 kg and first issued with an individual CofA on or after 1 June 1990;(2) turbine-engined aeroplanes with an MCTOM of more than 5 700 kg and first issued with an individual CofA before 1 June 1990; and(3) multi-engined turbine-powered aeroplanes with an MCTOM of 5 700 kg or less, with an MOPSC of more than nine and first issued with an individual CofA on or after 1 April 1998. <p>(b) The FDR shall record:</p> <ol style="list-style-type: none">(1) time, altitude, airspeed, normal acceleration and heading and be capable of retaining the data recorded during at least the preceding 25 hours for aeroplanes referred to in (a)(2) with an MCTOM of less than 27 000 kg;(2) the parameters required to determine accurately the aeroplane flight path, speed, attitude, engine power and configuration of lift and drag devices and be capable of retaining the data recorded during at least the preceding 25 hours, for aeroplanes referred to in (a)(1) with an MCTOM of less than 27 000 kg and first issued with an individual CofA before 1 January 2016;(3) the parameters required to determine accurately the aeroplane flight path, speed, attitude, engine power, configuration and operation and be capable of retaining the data recorded during at least the preceding 25 hours, for aeroplanes referred to in (a)(1) and (a)(2) with an MCTOM of over 27 000 kg and first issued with an individual CofA before 1 January 2016;(4) the parameters required to determine accurately the aeroplane flight path, speed, attitude, engine power and configuration of lift and drag devices and be capable of retaining the data recorded during at least the preceding 10 hours, in the case of aeroplanes referred to in (a)(3) and first issued with an individual CofA before 1 January 2016; or(5) the parameters required to determine accurately the aeroplane flight path, speed, attitude, engine power, configuration and operation and be capable of retaining the data recorded during at least the preceding 25 hours, for aeroplanes referred to in (a)(1) and (a)(3) and first issued with an individual CofA on or after 1 January 2016. <p>(c) Data shall be obtained from aeroplane sources that enable accurate correlation with information displayed to the flight crew.</p> | |

- (d) The FDR shall start to record the data prior to the aeroplane being capable of moving under its own power and shall stop after the aeroplane is incapable of moving under its own power. In addition, in the case of aeroplanes issued with an individual CofA on or after 1 April 1998, the FDR shall start automatically to record the data prior to the aeroplane being capable of moving under its own power and shall stop automatically after the aeroplane is incapable of moving under its own power.
- (e) If the FDR is not deployable, it shall have a device to assist in locating it under water. By 16 June 2018 at the latest, this device shall have a minimum underwater transmission time of 90 days. If the FDR is deployable, it shall have an automatic emergency locator transmitter.

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| Existing AMC | AMC1.2 CAT.IDE.A.190 |
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OPERATIONAL PERFORMANCE REQUIREMENTS FOR AEROPLANES FIRST ISSUED WITH AN INDIVIDUAL CofA ON OR AFTER 1 JANUARY 2023

- (a) The operational performance requirements for FDRs should be those laid down in EUROCAE Document 112A (Minimum Operational Performance Specification for Crash Protected Airborne Recorder Systems) dated September 2013, or any later equivalent standard produced by EUROCAE.
- (b) The FDR should, with reference to a timescale, record:
 - (1) the list of parameters in Table 1 below;
 - (2) the additional parameters listed in Table 2 below, when the information data source for the parameter is used by aeroplane systems or is available on the instrument panel for use by the flight crew to operate the aeroplane; and
 - (3) any dedicated parameters related to novel or unique design or operational characteristics of the aeroplane as determined by the Agency.
- (c) The parameters to be recorded should meet the performance specifications (range, sampling intervals, accuracy limits and resolution in read-out) as defined in the relevant tables of EUROCAE Document 112A, or any later equivalent standard produced by EUROCAE.

Table 1: FDR — All aeroplanes

[...]

Table 2: FDR — Aeroplanes for which the data source for the parameter is either used by the aeroplane systems or is available on the instrument panel for use by the flight crew to operate the aeroplane

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- (d) For Textron Aviation Inc. Model 525C aeroplanes, where point (b) above cannot be completely accomplished, this aeroplane should be equipped with an Aircraft Recording System (ARES II), which is a proprietary maintenance diagnostic system, that can be used to supplement and validate the data recorded on the FDR system, including the recorded Table 1 parameters and Table 2 parameters that are not recorded, with the exception of computed weight, which is not used on the aeroplane.

The ARES II has the capability to record many parameters from aircraft systems, and the flight data can be downloaded from the unit wirelessly or through the compact flash card installed in the unit. The ARES II is not classified as a flight data recorder and does not contain crash protected memory. The ARES II system records the Table 1 parameters identified above at rates or resolution that exceed the standard of point (b) above. The ARES II system also records many Table 2 parameters that are not recorded by the FDR system.

- (e) For Textron Aviation Inc. Model 525C and 560XL aeroplanes, where point (b) above cannot be completely accomplished, the aeroplane manufacturer should demonstrate that trends can be accurately identified even with lower update rates.

For the Director General,
By replacement,

Lode Ketele
Advisor General

Date of approval: see e-signature