

## Annex II to ED Decision 2021/005/R

## ‘AMC and GM to Part-ORO — Issue 2, Amendment 18’

The Annex to Decision 2014/017/R of 24 April 2012 is hereby amended as follows:

The text of the amendment is arranged to show deleted, new or amended text as shown below:

- deleted text is ~~struck through~~;
- new or amended text is highlighted in **blue**;
- an ellipsis ‘[...]’ indicates that the rest of the text is unchanged.

## AMC1 ORO.AOC.130 Flight data monitoring — aeroplanes

### FLIGHT DATA MONITORING (FDM) PROGRAMME

[...]

(c) FDM analysis techniques should comprise the following:

- (1) Exceedance detection: searching for deviations from aircraft flight manual limits and standard operating procedures. A set of core events should be selected to cover the main areas of interest to the operator **and as much as possible, the most significant risks identified by the operator.** ~~A sample list is provided in Appendix 1 to AMC1 ORO.AOC.130.~~ The event **definitions** ~~detection limits~~ should be continuously reviewed to reflect the operator’s current operating procedures.

[...]

- (l) Airborne systems and equipment used to obtain FDM data should range from **a** ~~an already installed full~~ quick access recorder (QAR), in **an** ~~a modern~~ aircraft with digital systems, to a **basic** crash-protected **flight** recorder in an older or less sophisticated aircraft. The analysis potential of the reduced data set available in the latter case may reduce the safety benefits obtainable. The operator should ensure that FDM use does not adversely affect the serviceability of equipment required for accident investigation.

## GM1 ORO.AOC.130 Flight data monitoring — aeroplanes

### ~~DEFINITION~~ IMPLEMENTATION OF AN FDM PROGRAMME

**Flight data monitoring is defined in Annex I to this Regulation.** ~~For the purposes of this Guidance Material, an FDM programme may be defined as a proactive and non-punitive programme for gathering and analysing data recorded during routine flights to improve aviation safety.~~ It should be noted that the requirement to establish a FDM programme is applicable to all individual aircraft in the scope of ORO.AOC.130, not to a subset selected by the operator.

(a) FDM analysis techniques

- (1) Exceedance detection

- (i) FDM programmes are used for detecting exceedances, such as deviations from flight manual limits, standard operating procedures (SOPs), or good airmanship. Typically, a set

of core events establishes the main areas of interest that are based on a prior assessment of the most significant risks by ~~to~~ the operators. In addition, it is advisable to consider the following risks: risk of runway excursion or abnormal runway contact at take-off or landing, risk of loss of control in flight, risk of airborne collision, and risk of collision with terrain.

Examples: low or high lift-off rotation rate, stall warning, ground proximity warning system (GPWS) warning, flap limit speed exceedance, fast approach, high or low on glideslope, ~~and~~ heavy landing.

[...]

## ~~Appendix 1 to AMC1~~ GM2 ORO.AOC.130 Flight data monitoring — aeroplanes

### EXAMPLES ~~TABLE~~ OF FDM EVENTS

The following table provides examples of FDM events that may be further developed using operator and aeroplane specific limits. The table is considered illustrative and not exhaustive. Other examples may be found in the documents published by the [European Operators Flight Data Monitoring \(EOFDM\) forum](#).

Event Group	Description
Rejected take-off	High speed rejected take-off
Take-off pitch	Pitch rate low or high on take-off
	Pitch attitude high during take-off

[...]

## GM3 ORO.AOC.130 Flight data monitoring — aeroplanes

### GUIDANCE AND INDUSTRY GOOD PRACTICE ~~FLIGHT DATA MONITORING~~

- (a) Additional guidance material for the establishment of flight data monitoring ~~can~~ may be found in:
- (1) International Civil Aviation Organization (ICAO) Doc 10000 'Manual on Flight Data Analysis Programmes (FDAP)'; and
  - (2) UK Civil Aviation Authority CAP 739 (Flight Data Monitoring), second edition dated June 2013.
- (b) Examples of industry good practice for the establishment of flight data monitoring may be found in the documents published by the [European Operators Flight Data Monitoring \(EOFDM\) forum](#).

## GM1 ORO.GEN.130(b) Changes related to an AOC holder

### CHANGES REQUIRING PRIOR APPROVAL

The following GM is a non-exhaustive checklist of items that require prior approval from the competent authority as specified in the applicable Implementing Rules:

[...]

(n) performance:

- (1) increased bank angles at take-off (for performance class A aeroplanes);
- (2) short landing operations (for performance class A and B aeroplanes);
- (3) steep approach operations (for performance class A and B aeroplanes);
- (4) reduced required landing distance operations (for performance class A and B aeroplanes);

[...]

## AMC3 ORO.MLR.100 Operations manual — general

### CONTENTS — CAT OPERATIONS

[...]

#### 11 HANDLING, NOTIFYING AND REPORTING ACCIDENTS, INCIDENTS AND OCCURRENCES AND USING THE CVR RECORDING

[...]

- (g) Procedures for the preservation of recordings of the flight recorders following an accident or a serious incident or when so directed by the investigating authority. These procedures should include:
- (1) a full quotation of point (a) of CAT.GEN.MPA.195~~(a)~~; and
  - (2) instructions and means to prevent inadvertent reactivation, repair or reinstallation of the flight recorders by personnel of the operator or of third parties, and to ensure that flight recorder recordings are preserved for the needs of the investigating authority.

[...]

## AMC5 ORO.MLR.100 Operations manual — general

### CROSSWIND LIMITATIONS IN THE OPERATIONS MANUAL (OM)

When publishing operational crosswind limitations in Part B of the OM in accordance with AMC3 ORO.MLR.100, operators should consider:

(a) the following manufacturer's information:

- (1) values published in the 'Limitations' Section of the AFM;
- (2) maximum demonstrated crosswind values, when more limiting values are not published in the 'Limitations' Section of the AFM;
- (3) gust values; and
- (4) additional guidance or recommendations;

(b) operational experience; and

(c) operating-environment factors such as:

(1) runway width;

(2) runway surface condition; and

(3) prevailing weather conditions.