

**Swiss Confederation** 

**Federal Office of Civil Aviation FOCA** Safety Division - Flight Operations

# FOCA GM/INFO

Guidance Material / Information

## **Reduced Required Landing Distance Operations**

Aeroplanes performance class A & B

Scope	Guidance for obtaining an approval
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## 0 Introduction

All Guidance Material/Information (GM/INFO) are intended to assist the organisation/operator in administrative matters. The administrative requirements and processes will facilitate liaising with the Federal Office of Civil Aviation (FOCA). It is to be considered a tool for the organisation/operator in order to ease processes of obtaining required and defined approvals and authorisations issued by the FOCA. Using the GM/INFO will be conducive to establishing compliance with FOCA requirements and will lead through the respective certification or variation process in regard to administrative tasks.

#### 0.1 Terms and Conditions

The use of the male **gender** should be understood to include male and female persons.

The most frequent **abbreviations** used by the **EASA** are listed here: <u>easa.europa.eu/abbreviations</u>.

When used throughout the GM/INFO the terms such as «shall, must, will, may, should, could, etc.» shall have the meaning as defined in the <u>English Style Guide</u> of the European Commission.

## 0.2 Legal References

Commission Regulation (EU) No 965/2012:

- ORO.GEN.130
- CAT.POL.A.230 / CAT.POL.A.235
- CAT.POL.A.255
- CAT.POL.A.330 / CAT.POL.A.335
- CAT.POL.A.355

## 0.3 Purpose of this GM/INFO

The following document is intended to assist the operator in applying for approval of Reduced Required Landing Distance Operations, and the FOCA Flight Operations Inspector in evaluating the application.

## 0.4 Scope

This GM/INFO contains some additional information related to the approval of Reduced Required Landing Distance Operations and is meant to be used aside with the corresponding Approval Checklist.

## 0.5 Organisation / Operator Responsibilities

Before submitting the application, it is essential for the operator to be familiar with the regulation and to submit the complete documentation in respect to the applicable regulation.

The operator has to ensure that all parts of the operations manual system are revised in a manner as to be compliant with the requirements relevant for Reduced Required Landing Distance Operations.

## 1 Background Information

In order to allow flexibility (e.g. higher payload or more destinations) for certain CAT operations with performance class A and class B aeroplanes, certain AOC holders may request an approval for Reduced Required Landing Distance Operations. If the prior approval is granted by FOCA, they are allowed to dispatch the aeroplane by using the 80 % landing factor.

In order to attain an equivalent level of safety compared to that of the traditional landing factors (60%/70%), a number of risk-mitigating conditions have to be fulfilled.

These mitigating measures are in the following four main areas:

- operational conditions
- flight crew
- aerodrome conditions
- · aeroplane characteristics and performance

The requirements for the Reduced Required Landing Distance Operation with performance class A aeroplanes are slightly different than the ones for performance class B aeroplanes. Compared to the corresponding rule for performance class A aeroplanes, the requirements on training are simplified; However, further limitations exist, and operations are restricted to visual meteorological conditions (VMC) only.

For performance class A aeroplanes, the approval is not aerodrome specific and is given to the operator in general. The operator may then choose where to exercise it.

For performance class B aeroplanes, the approval is aerodrome specific, is valid only for aerodromes where there is a public interest, but applies to all CAT operations (i.e. scheduled and non-scheduled) conducted at that aerodrome.

Some explanatory notes in addition to the regulatory documentation are given in the following sections.

## 2 Application for approval of Reduced Required Landing Distance Operations

It is recommended to liaise with the assigned inspector before the start of the application process in order to discuss the required documents and means of evidence, and to clarify any questions the applicant may have.

The application for approval must be submitted via the FOCA Form 330.

#### 2.1 Documentation

To process the application for Reduced Required Landing Distance Operaions, any or all of the following revised documents are required:

- AFM
- MEL
- Operations Manual Part A, B, C, D
- Risk Assessment

### 2.2 Equivalent level of safety

For the risk assessment, it should be noted that point (b)(1) and point (b)(2) to CAT.POL.A.255 can't be combined. The applicant for the approval shall provide evidence of only one of the two points.

### 2.3 Flight data monitoring

The aircraft categories for which FDM is mandatory are established in ORO.AOC.130 on the basis of general criteria. When FDM is available, it is recommended to be used also for the purposes of reduced required landing distance operations. Moreover it is recommended to be used on a voluntary basis also

when it is not required by ORO.AOC.130. However, when FDM is not available, alternative means for data collection will be considered, e.g. flight crew reporting.

## 2.4 Flight crew

Flight crew qualification in terms of training, checking and monitoring processes is a key element in showing evidence for equivalent level of safety. In general, the flight crew training programmes include ground training, flight simulation training device (FSTD), and/or flight training.

## 2.4.1 Performance class A aeroplanes

The matrix below should assist the applicant to identify the required elements to establish flight crew training programmes according CAT.POL.A.255 (b)(2)(iv). Depending on the previous reduced required landing distance operations of the flight crew, only an abbreviated training may be required.

Previous flight crew experience		GROUND	FSTD and/or	
OPS	A/C	TRAINING	FLIGHT TRAINING	
NO experience		Initial	Initial	
Similar type	Different type or class	Abbreviated	Initial	
of operation with <b>another</b> EU operator	Same type or class and variant	Abbreviated (content of conversion course)	Abbreviated (content of conversion course)	
Same operator	Changing aircraft type or class	Abbreviated (content of conversion course)	Abbreviated (content of conversion course)	
	Changing to a different variant of aircraft within the same type or class rating that has the same or similar operating procedures, handling characteristics and performance characteristics	Abbreviated (content of difference course or familiarisation)	Abbreviated (content of difference course or familiarisation)	
	Changing to a different variant of aircraft within the same type or class rating that has significantly different operating procedures, handling characteristics and performance characteristics	Abbreviated (content of conversion course)	Abbreviated (content of conversion course)	

## 2.4.2 Performance class B aeroplanes

The operator has to establish initial and recurrent training programmes, including aerodrome training.

Minimum pilot's experience on the aircraft type or class used to conduct RRLD should be specified by the operator in the OM.

## 2.5 Aerodromes conditions

As regards the assessment of aerodrome conditions, it should be noted that when the runway is forecast to be wet, a further check of the landing distance is required for the following reason: The landing distance calculated in accordance with CAT.POL.A.230 for dry runways at dispatch needs to be increased by 1.15 for the case of a wet runway (as per CAT.POL.A.235). This distance is obtained as follows:

Wet LD = 
$$1.15 \times 1.25 \times ALD$$

#### where:

- 'Wet LD' is the required landing distance for wet runways
- '1.15' is the corrective factor for wet runways
- '1.25' is the factor that results from the use of 80 % of the LDA
- 'ALD' is the actual landing distance for the aeroplane type that results from the AFM data for dry runways (accordance with CS 25.125 or equivalent (FAR 25.125)

However, a comparison with the landing distance required by CAT.OP.MPA.303 was carried out for a number of performance class A aeroplane types, which showed that the landing distances based on CAT.OP.MPA.303 may be longer or shorter than the Wet LDs depending on the aeroplane type, number of operative reversers, and other assumptions made during the certification of the aeroplane. These differences for certain performance class A aeroplane types may lead to the situation where the Wet LD for reduced required landing distance operations is systematically shorter than the one calculated in-flight due to the use of the 80 % landing factor. To avoid this situation, it is required to compare at the time of dispatch the Wet LD with the distance calculated in accordance with CAT.OP.MPA.303, and use the longer of the two. Nevertheless, the requirement of CAT.OP.MPA.303 to check again the landing distance in-flight against the latest information available at the time of arrival remains valid.

## 2.6 Aeroplane characteristics and performance

For performance class A aeroplanes, as regards aircraft eligibility, when the factors required by CAT.POL.A.230(a)(1) or (a)(2), as applicable, are the basis to demonstrate compliance with certification standards, the aeroplane should not be operated with reduced required landing distances, hence the need for AFM statement of eligibility.

Since the issue of a new AFM revision including the eligibility statement takes sometimes quite some amount of time, the operator may use, subject to agreement with FOCA, a written letter from the aircraft manufacturer, which serves as evidence for eligibility, until the respective statement has been included in the AFM. This written letter has to be kept on board the aircraft at all times, until the AFM has been updated.