

Safety Information Bulletin

Operations

SIB No.: 2024-14**Issued: 16 December 2024**

Subject: **Conduct of Accuracy Tests for Type B Electronic Flight Bag Application for Aircraft Performance or Mass and Balance Computations**

Ref. Publications:

- Regulation (EU) [2018/1139](#) of the European Parliament and of the Council dated 04 July 2018.
- Commission Regulation (EU) [965/2012](#) dated 05 October 2012.
- AMC5 SPA.EFB.100(b)(3) and AMC4 NCC.GEN.131(b)(2) (Available in the [Easy Access Rules for Air Operations](#)).

Applicability

Competent authorities and air operators operating under the Commercial Air Transport (CAT) and Non-Commercial Complex (NCC) regulations.

Description

Performance and mass and balance Electronic Flight Bag (EFB) applications are commonly used by operators.

In order to be approved to use such applications, operators are required to ensure that the calculations are based on existing published data found in the aircraft flight manual (AFM) or performance manual and account for the applicable performance requirements in Subpart C of Annex IV (Part-CAT) and Annex VI (Part-NCC).

Operators are therefore required to perform accuracy tests to demonstrate that the aircraft performance or mass and balance computations provided by the application are based on correct data derived from the AFM, or other reference data sources. This should be performed under a representative cross section of conditions (e.g. for take-off and landing performance applications: runway state and slope, different wind conditions and pressure altitudes, various aircraft configurations including failures affecting aircraft performance, etc.).

Furthermore, the demonstration should include a sufficient number of comparison results from representative calculations throughout the entire operating envelope of the aircraft, considering corner points, routine, and break points. It should be emphasised in this context that not completing said tests may pose a safety concern as the EFB application could provide incorrect performance and/or mass and balance data.

Based on requests received by EASA on how to perform said accuracy tests and as observed during EASA standardisation activities, the methodology used to perform these accuracy tests is not always adequate, and does not allow all operators to achieve the above-mentioned objectives.

This is information only. Recommendations are not mandatory.



This is even more common in the case, where the manufacturer of the related aircraft is no longer providing a paper AFM with performance charts, but rather a “computerised” AFM (i.e. a certified software with an associated certified performance database), since the standard comparison between the EFB application calculations and paper charts calculations is no more possible.

At this time, the safety concern described in this SIB is not considered to be an unsafe condition that would warrant Safety Directive (SD) action under Commission Regulation (EU) [965/2012](#), Annex II, ARO.GEN.135(c).

Recommendation(s)

EASA recommends operators to verify that all required accuracy tests for their EFB type B application(s) in use have been correctly and fully completed to ensure that the performance and/or mass and balance computations provided by their EFB application for the aircraft in their fleet are correct in comparison with data derived from the respective AFM or other similar approved reference data sources, under a representative cross-check of conditions.

In the general case, the methodology to be used is to perform in parallel the same computation under a representative cross-check of conditions on the EFB application and with the performance/mass and balance charts of the AFM, and to compare the results.

For performance calculation applications, and in the case of a “computerised” AFM, the methodology to be used relies on the use of the certified software specific to each related design approval holders (DAH).

In the specific case of:

- Airbus aircraft: the certified software to be used to perform the comparison with the EFB output is PEP-FM (including the calculation module OCTOPUS-FM).
- Boeing aircraft: for those aircraft certified with AFM-DPI, the AFM-DPI tool may be used as a means of comparison with OPT results.
- Embraer aircraft: the certified software to be used to perform the comparison with the EFB output is:
 - E-Jets / E-Jets E2 family: the applicable version of the Computerized Airplane Flight Manual (CAFM) including the SCAP Module for the computation of Operational Landing Performances;
 - ERJ family: the Embraer Take-off Analysis Software (ETOAS).

For other aircraft, which DAH is no longer providing paper performance charts, the operators should establish contact with the DAH to obtain the information on the related certified software to be used to conduct said accuracy tests.

Note that operators are required to evaluate the significance of any differences recorded during the accuracy tests and implement temporary appropriate mitigation measures until the differences are eliminated.

Competent authorities should take the above information into account in their EFB approval process, and also during their oversight activities with particular focus on ensuring that operators perform the required EFB accuracy tests for the aircraft in their fleet.

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Contact(s):

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