



Terms of Reference

for a rulemaking task

Transposition of provisions on Electronic Flight Bags (EFBs) from ICAO Annex 6

RMT.0601 AND RMT.0602 — ISSUE 1 — 5.10.2015

Applicability		Process map	
Affected regulations and decisions:	Regulation (EU) No 965/2012 and associated decisions: Part-Definitions; Part-ARO; Part-CAT; Part-SPA; Part-NCC; Part-NCO; Part-SPO; ED Decision 2003/012/RM (AMC-20).	Concept Paper:	No
		Rulemaking group:	Yes
		RIA type:	Full
		Technical consultation during NPA drafting:	No
		Publication date of the NPA:	2016/Q3
		Duration of NPA consultation:	3 months
		Review group:	TBD
		Focused consultation:	Yes
Affected stakeholders:	National Aviation Authorities (NAAs); operators; flight crew.	Publication date of the Opinion:	2018/Q2
		Publication date of the Decision:	2019/Q2
Driver/origin:	Level playing field		
Reference:	ICAO Annex 6, Part I, Amdt 38; ICAO Annex 6, Part II, Amdt 33; ICAO Annex 6, Part III, Amdt 19.		



1. Issue and reasoning for regulatory change

Background

Traditionally, flight crews brought in the flight crew compartment a considerable volume of paper documents (e.g. charts, manuals, etc.), as some of them were mandated by regulations. Of course, all these documents add weight to the aircraft and occupy space. In addition, considering the amount of documentation, the consultation of a specific document or page in flight might prove to be complex.

Due to technology advancements it became possible to use digital documents and, therefore, to replace voluminous paper documentation with Portable Electronic Devices (PEDs) or installed computers to reduce weight and volume, while possibly adding functionalities to support flight crews in the execution of their tasks. In addition to the capability to contain digital documents, these PEDs or computers can also be used to support calculations performed by flight crew on board (e.g. mass and balance, performance), or even transmit and receive data (e.g. meteorological information).

In the beginning of the 21st century, the emergence of PEDs of very small dimensions and of a very low cost (e.g. iPads, tablets, etc.) compared to the existing 'installed' ones, which are considered part of the approved aircraft configuration, has led to the proliferation of portable Electronic Flight Bags (EFBs) in the cockpits. The enhanced processor power of these new generation devices allows the inclusion of more and more complex functions, which are not considered anymore to replace the paper documentation carried till now.

Recent developments clearly show a trend among operators to further integrate these devices with avionics through a certified interface which allows data transmission from avionics to EFBs. This allows very high-level applications to be developed combining various parameters received from the avionics and other data, such as weather forecast or aeronautical charts.

The use of such devices has undoubtedly the potential to offer operational, economic and safety benefits. However, they may introduce as well new safety risks, such as battery fire, electromagnetic interference, human factors issues, etc., and may be subject to known risks, such as loose objects in the flight crew compartment. These risks need to be assessed and, where necessary, mitigated through proportionate regulatory measures and/or safety promotion measures.

Current European Union regulations on EFBs

Except for the use of on-board mass and balance computing system (CAT.POL.MAB.105, NCC.POL.110 and SPO.POL.115) and also for the use of PEDs on board (CAT.GEN.MPA.140, NCC.GEN.130, NCO.GEN.125 and SPO.GEN.130), there is no specific requirement particularly related to the use of EFBs in the applicable regulation for air operations, i.e. Regulation (EU) No 965/2012.

Currently, the only European EFB-specific provisions are contained in AMC 20-25 'Airworthiness and operational consideration for Electronic Flight Bags (EFBs)', published in 2014, which is only applicable to Commercial Air Transport (CAT). This stand-alone document provides detailed provisions for the use of EFBs by CAT operators, in the area of airworthiness and operations, but is not linked to any Implementing Rule requirement of Regulation (EC) No 216/2008. Therefore, AMC 20-25, which is by nature non-binding, is not subject to the Alternative Means of Compliance (AltMoC) process. In addition, the combination of operations and airworthiness considerations in one document introduces legal uncertainty as the implementation is under the responsibility of different competent authorities.



Also, it should be noted that this EFB-specific material does not yet address non-commercial and specialised operations.

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During the 15th meeting of the OPS Panel Working Group (OPSP-WH/WHL/15; March 2013), new specific EFB SARPs have been proposed for inclusion in Part I of Annex 6 (Commercial Air Transport by aeroplanes), as well as in Part II (International general aviation) and Part III (International commercial and non-commercial helicopter operations). The ICAO Council adopted the final amendments to ICAO Annex 6 Part I, Part II and Part III in March 2014, with an applicability date in November 2014.

These amendments introduce general hardware and software requirements and in specified cases a formal operational approval with an entry in the operations specifications (OPSSPEC) of the operator, for the use of EFBs on aeroplanes and helicopters by CAT operators, together with some associated criteria this approval would rely on.

The provisions for non-commercial operations rely on the same operational criteria but no operational approval is required for these types of operations.

In parallel, the ICAO subgroup of the ICAO Flight Operations Panel has developed guidance, contained in ICAO DOC No 10020, for contracting states on the use of EFBs by operators. It includes, among others, some criteria to determine whether an EFB application would require an operational approval for its use.

In the absence of specific Implementing Rule requirement on the use of EFBs in Regulation (EC) No 216/2008, it is considered that Regulation (EU) No 965/2012 is less prescriptive than the EFB provisions in ICAO Annex 6 Part I, II and III.

2. Objectives

The general objectives of the European Union in the field of civil aviation are defined in Article 2 of Regulation (EC) No 216/2008 (the 'Basic Regulation'), which includes taking into account any emerging ICAO provisions. This proposal will contribute to these objectives by addressing the issues outlined in Section 1.

The specific objectives of the proposed RMT.0601 & RMT.0602 are therefore:

- to ensure compliance with the ICAO SARPs;
- to provide specific requirements on the use of EFBs in Regulation (EU) No 965/2012 for commercial air transport operations;
- to provide requirements proportionate to the complexity of the operations and/or propose safety promotion actions related to the use of EFBs for non-commercial operations and specialised operations; and
- to conduct a first review of AMC 20-25 based on the experience gained so far by competent authorities since its publication.

The task addresses the use of EFBs in aeroplanes and helicopters.



3. Activities

During the development of the draft rules and the RIA, the following activities will be considered:

- to identify all significant existing EFB applications and the ones being currently developed, to get a good picture of the EFB applications that will be available in the mid-term;
- to define general criteria to be used to determine whether the use of a specific application should be approved;
- to assess the current AMC 20-25 provisions regarding their possible transposition to non-commercial and specialised operations;
- to conduct a review of the current content of AMC 20-25;
- to transpose the OPS provisions contained in AMC 20-25 into AMCs to the new Air OPS EFB implementing rules to be drafted.

4. Deliverables

The expected products of this task are:

- Notice of Proposed Amendment (NPA), including a Regulatory Impact Assessment (RIA);
- Comment-Response Document combined with an Opinion containing draft requirements to Regulation (EU) No 965/2012; and
- Related Agency Decisions.

The potentially affected parts of the Air Operations Regulation are Annex I (Definitions), Annex II (Part-ARO), Annex IV (Part-CAT), Annex V (Part-SPA), Annex VI (Part-NCC), Annex VII (Part-NCO), Annex VIII (Part-SPO) and the related Decisions.

5. Interface issues

The task considers the GA roadmap and proportionality of rules for NCO.

6. Technical consultation

Considering the specificity of NCO operations, the need for proportionality, as mentioned above, and the difficulty to ensure an adequate representation of General Aviation stakeholders in the rulemaking group, a technical consultation, in the form of a dedicated meeting with only General Aviation stakeholders, is going to be organised to address NCO operations.

This meeting is intended to specifically assess and determine the most suitable means to transpose the ICAO Annex 6 part II related to EFB for NCO operations. The possible means include, among others, safety promotion activities, the drafting of guidance material and the drafting of performance based rules.

During this meeting, a specific risk assessment related to the use of EFB by NCO operators is going to be developed and will be used as input to the impact assessment to determine the most suitable means.



7. Profile and contribution of the rulemaking group

Members of rulemaking groups are appointed by the Agency's Flight Standards Director in accordance with the provisions of the Rulemaking Procedure.

The rulemaking group related to this task should include representatives from:

- (a) operators;
- (b) pilots associations;
- (c) aircraft manufacturers and EFB software developers; and
- (d) competent authorities.

Note: The group should have an appropriate balance between competent authorities, operators, manufacturers and pilot associations.

The expertise and experience of the members of the group should cover:

- (a) the operations of EFBs in CAT operations, non-commercial operations and specialised operations with aeroplanes and helicopters;
- (b) the competent authority oversight of operators; and
- (c) the airworthiness certifying authority: EASA.

8. Reference documents

8.1. Affected regulations

- Commission Regulation (EU) No 965/2012 of 5 October 2012 laying down technical requirements and administrative procedures related to air operations pursuant to Regulation (EC) No 216/2008 of the European Parliament and of the Council (OJ L 296, 25.10.2012, p. 1).

8.2. Affected decisions

- Decision 2012/015/R of the Executive Director of the Agency of 24 October 2012 on Acceptable Means of Compliance and Guidance Material to Commission Regulation (EU) No 965/2012 of 5 October 2012 laying down technical requirements and administrative procedures related to air operations pursuant to Regulation (EC) No 216/2008 of the European Parliament and of the Council (Guidance Material to Annex I — Definitions);
- Decision 2014/025/R of the Executive Director of the Agency of 28 July 2014 adopting Acceptable Means of Compliance and Guidance Material to Part-ARO of Regulation (EU) No 965/2012 and repealing Decision 2014/014/R of the Executive Director of the Agency of 24 April 2014 (AMC and GM to Part-ARO — Issue 3);
- Decision 2014/015/R of the Executive Director of the Agency of 24 April 2014 adopting Acceptable Means of Compliance and Guidance Material to Part-CAT of Regulation (EU) No 965/2012 of 5 October 2012 and repealing Decision 2012/018/R of the Executive Director of the Agency of 24 October 2012, last amended by Decision 2015/007/R of 30 January 2015;
- Decision 2012/019/R of the Executive Director of the Agency of 24 October 2012 on Acceptable Means of Compliance and Guidance Material to Commission Regulation (EU) No 965/2012 of



5 October 2012 — Acceptable Means of Compliance and Guidance Material to Annex V (Part-SPA);

- Decision No 2013/021/R of the Executive Director of the Agency of 23 August 2013 on Acceptable Means of Compliance and Guidance Material to Commission Regulation (EU) No 965/2012 of 5 October 2012 — Acceptable Means of Compliance and Guidance Material to Part NCC;
- Decision No 2014/016/R of the Executive Director of the Agency of 24 April 2014 on Amending Decision No 2012/019/R of the Executive Director of the European Aviation Safety Agency of 24 October 2012 on Acceptable Means of Compliance and Guidance Material to Part-NCO, Issue 2;
- Decision 2014/018/R of the Executive Director of the Agency of 24 April 2014 on Acceptable Means of Compliance and Guidance Material to Commission Regulation (EU) No 965/2012 of 5 October 2012— ‘Acceptable Means of Compliance and Guidance Material to Annex VIII — Part-SPO; and
- Decision 2014/001/R of the Executive Director of the Agency of 29 January 2014 amending Acceptable Means of Compliance for Airworthiness of Products, Parts and Appliances, AMC 20-25 ‘Airworthiness and operational consideration for Electronic Flight Bags (EFBs)’.

8.3. Reference documents

- Amendment 38 to ICAO Annex 6 Part I;
- Amendment 33 to ICAO Annex 6 Part II;
- Amendment 19 to ICAO Annex 6 Part III; and
- FAA AC 120-76C — Guidelines for the Certification, Airworthiness, and Operational Use of Electronic Flight Bags, 9 May 2014.

