ERA Operations advisory group

EFB latest developments

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30 September 2014
Outline

- Current regulatory situation
  - AMC20-25
  - Regulation (EU) No 965/2012 (OPS)
  - ICAO Annex 6 EFB SARPs
- RMT.0601/602
AMC20-25: Airworthiness and operational consideration for Electronic Flight Bags (EFBs)
- Applicable only to commercial air transport operations
- Applicable only to EFB used by flight crew
- Considers 2 types of EFBs, portable or installed
  - Installed EFBs are covered by aircraft airworthiness approval
  - Considers portable EFBs with possibly installed resources
- Considers 2 types of applications
  - Type A applications (malfunction or misuse have no safety effect)
  - Type B applications (malfunction or misuse is limited to minor failure condition)
    - AMMD is a type B application subject to specific conditions
  - Application ineligible as type A or B are outside of the scope and are falling under airworthiness regulations
- Provides criteria for the operational assessment of the use of EFBs.

ETSO C165A (non mandatory)
- ETSO approved AMMD application are considered compliant with appendix H of AMC20-25
EFB related IR/AMC in Reg (EU) 965/2012

- **CAT.GEN.MPA.140/NCC.GEN.130 / NCO.GEN.125/SPO.GEN.130**
  - Portable electronic devices
  - Not specific to EFB

- **CAT.POL.MAB.105/NCC.POL.110/SPO.POL.115**
  - Mass and balance documentation
  - Approval (CAT only) for the use of on-board mass and balance computer system
  - Addresses only the use of one specific EFB application

- **AMC1 ORO.MLR.100 /AMC1 CAT.GEN.MPA.180/AMC1 NCC. GEN.140/AMC1 SPO.GEN.14**
  - Operations manual/Documents, manuals and information to be carried
  - Addresses the use of electronic documents/manuals
AMC20-25 and Regulation (EU) 965/2012

- No IR in Regulation 965/2012 to which AMC20-25 could be directly linked

- AMC20-25 contains mostly OPS considerations, but airworthiness considerations as well

- AltMOC process doesn’t apply to AMC20-25

- Any operational approval in the area of EFB needs a hook in an IR.

- AMC20-25 is only addressing CAT operations
Hardware
Where portable EFBs are used on-board the operator shall ensure that they do not affect the performance of the aeroplane systems, equipment or the ability to operate the aeroplane.

Software
The State of the Operator shall approve the operational use of EFB functions when an EFB is used for the safe operation of the aeroplane.

+ OPS SPEC entry

⇒ An operational approval is not required for all EFB applications
⇒ Further guidance is given in the ICAO EFB manual (ICAO Doc 10020)
  ⇒ Criteria to determine such application
  ⇒ Dependant on the mitigations established by the operator
Hardware
Where portable EFBs are used on-board the operator shall ensure that they do not affect the performance of the aeroplane systems, equipment or the ability to operate the aeroplane.

Software
The State of the Operator shall establish criteria for the operational use of EFB functions when an EFB is used for the safe operation of the aeroplane.

⇒ Further guidance on the establishment of such criteria is given in the ICAO EFB manual (ICAO Doc 10020)
  ⇒ Criteria to determine such application
  ⇒ Dependant on the mitigations established by the operator
Content of the draft EFB manual

1. Introduction
2. Definitions
3. Equipment / Hardware considerations
4. Human factors
5. Crew operating procedures
6. Flight crew training
7. EFB risk assessment
8. EFB functions
9. Operational evaluation process
10. EFB use in general aviation operations

Attachment 1: Guidance for EFB Software Applications
- Performance (Take-off, Landing and W&B)
- Electronic Charting
- Taxi Aid Camera System (TACS)
- Airport Moving Map Display (AMMD)
- Electronic Checklist (reserved)

Attachment 2 - Ops Approval Checklist
Attachment 3 - Example of operations specifications content
Attachment 4: EFB policy and procedure manual

Content consistent with AMC 20-25
**General Objective: Transposition of ICAO Annex 6 EFB SARPs**

- Draft implementing rules related to EFB based on ICAO Annex 6 EFB SARPs
- Transpose AMC20-25 into AMCs to OPS and airworthiness rules
- First editorial review of AMC20-25
  - List specific example identified
- Transpose elements of AMC20-25 into AMC to non-commercial operations regulation

Timeline will be defined in the Terms of reference
Starting in 2015
Group task foreseen
Task managed by Flight Standards/Operations department/ Regulation section (FS2.2)
Pre-RIA already drafted
EASA procedure: WI.RPRO.00045-003

- RAG/TAG/SSCC asked to propose members when the ToRs are published
- Non EU- stakeholders could be involved
- List of members decided by the EASA Flight Standards Director
- Group composition published on EASA website.
RMT.0601/602: Foreseen timeline

- **ToR**: Terms of Reference
- **NPA**: Notice of Proposed Amendment
- **CRD/Opinion**: Implementing rules
- **Decision**: AMC/GM

**Objectives Method Timeline**
- Q1 2015

**Text proposal Public consultation**
- Q1 2016

**Individual answers Proposal of rule text to the Commission**
- Q1 2018

**Decision adopted by EASA once Regulation is published.**
- Q1 2019
Possible amendments as an outcome of RMT.0601/602
Flight Standards Department

Any Questions?

Your safety is our mission.