FAA Perspective and Regulatory Update on Paperless Systems

IATA Paperless Aircraft Operations

November, 2016

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Presentation Topics

• RFID Current Policy
• Examples of RFIDs Operational Uses
• Operational Allowance Considerations
• FAA Electronic Signatures, Electronic Recordkeeping, and Electronic Manual Systems
• AC120-78A, OpSpec A025 and InFO 16010
• Questions
Current Policy  RFID

  – References SAE Aerospace Standard 5678A “Passive RFID Tags Intended for Aircraft Use”
  – The major change in AC 20-162A relates to the flammability testing requirement.
Current Policy RFID (Cont)

• FAA’s Aircraft Certification is drafting AC 20-RFID “Airworthiness Approval of Installed Active Radio Frequency Identification (RFID) Tags and Sensors”
  – Expected to be available for public comment 2Q FY17.
  – References SAE AS 6023 “Active and battery assisted RFID Tags Intended for Aircraft Use” when published
Current Policy RFID  (Continued)

• FAA’s Flight Standards is drafting AC 119-RFID “Operational Use of Radio Frequency Identification Systems Onboard Aircraft”
  – RFID enabling guidance for operators
  – Expected to be available for public comment 3Q FY17.
Examples of Operational Uses – Emergency Equipment

Current State:
• Manual inspection & configuration management
• Long lead time, hours in duration
• Error prone paper records

Desired State:
• Automated inspection & configuration management
• Very short lead time, hours to minutes
• Error-free digital records

Efficiency, Reliability & Compliance
Examples of Operational Uses – Rotable Components

Current State:

• Service information is remote, difficult to access
• Data plate difficult to read without direct line-of-sight
• No historical data

Desired State:

• Limited service data including conditions noted and actions taken on the part
• Positive non-line-of-sight identification
• History available to all stakeholders

Traceability, Visibility & Serviceability

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Electronic Signatures, Electronic Recordkeeping Systems, and Electronic Manual Systems
AC120-78A

• Revised AC contains updated and definitive standards for these electronic signatures, record keeping and manuals.
• Applies to those signatures, records and manuals required by regulation (14 CFR) the operator provides electronically.
• Contains a list of applicable general categories
• Not necessary for those not required by 14 CFR.
OpSpec A025

- OpSpec A025 is the means for authorizing the use of electronic signatures, electronic recordkeeping systems and electronic manual systems.
- Applies to 14 CFR 91K, 121, 125, 125M, 133, 135, 141, 142, 145 and 147.
Current OpSpec A025

• The current OpSpec template (HQ Rev 020) is titled simply “Electronic Record Keeping”.

• An open-ended free text authorization which allows a PI (or operator) to type pretty much anything they want in there.

• In this format, the FAA has no real way of knowing what certificate holders are actually authorized to use unless each OpSpec is reviewed individually.
New OpSpec A025

• A025 was revised in June of 2016 and is now titled “Electronic Signatures, Electronic Recordkeeping Systems and Electronic Manual Systems”
  – Structured to allow for separate and distinctive authorizations for electronic signatures, recordkeeping and manual systems.
• Allows the FAA to readily identify the authorizations issued to certificate holders
• The part 145 and 147 templates were not changed in this revision.
Notice N8900.368

• Instructs inspectors to verify operators existing electronic applications and systems meet the standards in AC 120-78A.

• Once verified, the PI may issue the new A025 template.

• The old template Expires December 22, 2016

• The FAA received a request to extend 6 months. The request will likely be granted.
InFO 16010

• Notifies the public of the updates to AC 120-78, along with the associated OpSpecs and FAA Order 8900.1 policy established

• In InFO advises operators that they should be aware of the six month action period (called the “six month transition period” in the InFO), during which operators who are currently using electronic signatures, recordkeeping systems and manuals are expected to make whatever changes are necessary to meet the updated standards.
Contact Information

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**Electronic Documentation (AC120-78, OpSpec A025)**
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