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OSD applicability to STCs:

The importance of an early consideration of impact on OSD, and considerations on required DOA privileges

Thierry VANDENDORPE
MMEL Senior Expert
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STC WORKSHOP
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OSD for STC

AGENDA



Part 1

OSD requirements for STC



Part 2

OSD challenges for STC



Part 1- OSD requirements for STC

- Pre-requisites on DOA scope of approval
 - By 19 Dec 2016: compliance with 21.A.251 Terms of Approval and 21.A.263 Privileges updated to OSD
 - If the extension of scope to OSD is not completed, STC having necessary/mandatory OSD impact cannot be approved.
 - Pro-active approach is recommended
 - Customization of the approach based on activities possible (e.g. only MMEL covered in the scope)
 - EASA guidance material available for impact/demonstration of compliance/classification of MMEL changes



Part 1- OSD requirements for STC

- Two kind of STC OSD impact
 - “Must have”= Necessary/Mandatory changes
 - Required by Part 21, 21.A.113 (b)
 - Must be made available before the data must be used by an EU operator
 - Examples: MMEL invalidated by STC on photo luminescent emergency foot path marking system requiring more restrictive MMEL relief on cabin lights for charging purpose
 - New LPV avionics capability leading to Level C difference training course



Part 1- OSD requirements for STC

- “Must have” changes to OSD shall be identified by established and used DOA procedures:
 - Adequate review of existing OSD content (Ref. EASA TCDS)
 - Potential need to review underlying substantiations from the TCH (complex or interconnected systems)
 - Example: The MMEL for GPS already exist but the consequence of the failure of one GPS can lead to additional limitation for LPV => STC MMEL supplement
- Not required if no OSD exists but can be developed on a voluntary or operator's request basis



Part 1- OSD requirements for STC

- Two kind of STC OSD impact
 - “Nice to have”; relief for operational flexibility at operator level
 - Not required; voluntary request from STCH
 - Can be treated as a stand-alone OSD change, separately from the design change, after the entry into service of the aircraft
 - Example: MMEL for CCTV installation for cockpit door security



Part 1- OSD requirements for STC

- For both “Must have” and “Nice to have” changes to OSD, STCH shall:
 - Determine applicable certification specification for the change
 - **Latest OSD CSs** if linked to **significant** design change and OSD change classified **Major** (unless 21.A.101(b)(3) applied)
 - **Otherwise current OSD certification basis (TCDS) applies**
- Demonstrate compliance to OSD Certification Basis
 - As per processes described in CS-FCD, CS-CCD
 - As per methods agreed with the Agency Ref. CS MMEL 145(b)



Part 1- OSD requirements for STC

- For both “Must have” and “Nice to have” changes to OSD, STCH shall:
 - Obtain approval from the Agency of the OSD STC supplements as part of an STC, unless stand-alone and classified minor.
 - OSD supplements should be listed on the certificate but not necessarily listed in the MDL of change type design (subject to validation by bilateral partners).
 - Distribute/make available the change to OSD to end-users (operators, NAAs, ATO)



Part 2- OSD challenges for STC

- Pre-requisites on DOA scope of approval
 - Only once procedures are defined in DOH, CVE nominated, involved staff trained, OSD impact can be efficiently investigated.
 - For DOAH with activities not prone to OSD impact, the procedures for impact analysis together with a limitation to exclude OSD changes, if any, may be sufficient
 - Limited scope to OSD MMEL only can also be considered
 - EASA OSD experts involved in the investigation of significant change to ToA for review and OSD CVE interview.



Part 2- OSD challenges for STC

➤ Content of OSD STC

- Focus on the (limited) scope of the design change
 - Some base aircraft OSD grandfathered in 2014 have not been updated for STCs as requirements started for applications after Dec 2016
 - OSD is not included in certification of STCs in FAA/TCCA regulatory systems, etc..
 - Missing changes to OSD may exist. STCH responsibility is limited to own type design after Dec 2016.
 - Generic OSD content may be voluntary developed for AML STC (e.g. new avionics) to cover potential gaps



Part 2- OSD challenges for STC

- Impact on OSD yes/no/...may be?
 - A thorough analysis of the existing OSD is necessary to anticipate potential impact
 - Arrange early sourcing of OSD from Customer or TCH
 - Based on DOA Scope of Approval/Products, develop a typology of recurrent STCs that have OSD impact
 - Collect robust examples > issue DOH guidance for future use
 - In case of doubt, contact the Agency, to prevent risk of DOA findings



Conclusion

- Part-21 requirements include DOA extension of scope for STCH
- Procedures availability and training of staff is essential to be OSD ready
- Privileges for DOA holders for OSD minor changes approval allow consistent approach with type design classification
- EASA experts remains available for advise in the implementation phase, under DOATL supervision



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Thank you.

Questions ?

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