



Operational Suitability Data in the Context of STCs

EASA Certification & DOA Workshop

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Lufthansa Technik

Lufthansa Technik DO at a glance

Locations

- Office of Airworthiness & Quality **Hamburg**
- Design Engineering **11 worldwide**

Design Engineering Departments 33

Authorized Personnel 644

- Full Time Equivalent **337**

Design Activities (EASA)

- STCs **>250**
- Major repair approvals **11**
- Minor changes & repairs / year **4000-5000**

Operational Suitability Data in the context of STCs

Change to LHT Design Organisation System

■ Project OSD @ LHT DOA

- End of 2015 – OSD requirement for TC Holders
- March 2016 – OSD AMC issued
- April 2016 – project team (4 people; part time)
- Sept. 2016 through Dec. 2016 – Finalisation of concept
 - 2 IT tools affected
 - Detailed training for OoA and all CVE´s
- Good support by EASA senior experts (if available), even if answers were not immediately available

Operational Suitability Data in the context of STCs

Change to LHT Design Organisation System

■ Challenges

- Regulations are obviously written with strong focus on TC holders
- EASA - missing experience
 - „common learning experience“
 - many answers still not sufficient for practical use
- Internal Training of Design Engineering without practical background
- Basic OEM documentation
 - Details very different from TC to TC
 - Various kinds of manuals and documents affected
 - Very low differentiation between recommended and required OSD visible
- For DOAs with strong ties to commercial operators aspects such as MMEL, FCD or CCD were traditionally covered, long before OSD.
 - OSD is sometimes perceived as having low additional benefit



Operational Suitability Data

Experience from 2 ongoing STC projects (VIP completions)

Master Minimum Equipment List

- Clear Guidance provided by CS-MMEL
- Process improved with OSD implementation
- No experience yet for validations under US/Canada/Brazil Bilateral Agreements.

Cabin Crew Data

- Certification Specifications very generic and partly redundant (CCD.205(b) / CCD.310 / CCD.400 / Aircraft Difference Table (ADT))
- EASAs current understanding seems to be that all lines of the ADT need to be filled (even if obviously not affected)

Flight Crew Data

- Pragmatic guidance: FCD needs only to be considered if simulator or WBT training for flight crew necessary
- Short explanation is regarded as sufficient
- Knowledge / inputs from pilots are required

Operational Suitability Data

Experience from 2 STCs

■ Part 21 and CS-OSDs

- Seven different classification criteria for a change to Type Certificate are required by Part 21.A.91
 - Type Design
 - 3 (+2) OSD Elements
 - AFM

Classification and showing of compliance cannot be done sequentially.

■ Classification Criteria

- for changes to Type Design and AFM included in Part 21
- for (changes to) OSD included in CS

Not in line with Part 21 systematic

■ Applications and Forms

- Templates impractical for STC application (issued with strong TC focus only)
- One project requires two applications (STC & OSD)
- 2 Templates for one project & 7 classifications

■ First 2 STCs (VIP completions)

- Very different depth of information requested from one OSD element to the other
- EASA specialists were not sure, whether OSD elements are affected or not
- Unclear application process for OSD: „for all STCs“ vs. „only if OSD change is major“

**Vielen Dank für Ihre Aufmerksamkeit.
Thank you for your attention.**

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