



EASA
European Aviation Safety Agency

Part 21
Design Organisation Approval
(DOA)
Implementation
&
Product Certification Workshop
- Industry Session -

18-19 November 2015
“RHEINSAAL” HYATT Conference Room
Hyatt Regency Hotel
Cologne, Germany

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TE.GEN.00409-001



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TIP update for U.S. – EU bilateral agreement

Reciprocal acceptance of ETSOA/TSOA

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Concept

FAA/EASA team under Certification Oversight Board (COB) proposed the following changes to the present TIP:

- Reciprocal acceptance for all ETSOA/TSOA
 - Including ETSO/TSO standards with technical difference
 - Including all deviations
 - Present lists of accepted deviations have been checked and found to be acceptable from both sides
- Validations only for few specific ETSOA/TSOA

The revision 5 of the TIP had been signed during COB meeting on 15th September and will be effective once the overarching BOB decision has been adopted



Implications

- All existing ETSOA/TSOA are reciprocally accepted
 - Including European NAA approvals issued prior to EASA (28th September, 2003)
- Validations required only for:
 - Integrated Modular Avionics (IMA)
 - Emergency parachutes
 - active ULD (Cargo Container with cooling/heating system)
 - APU
- All existing ETSOA for U.S. manufacturers and TSO-LODA for EU manufacturers remain valid



Implications

- No „voluntary“ validations on request of industry
- ETSO standard may be different from TSO standard (CS-ETSO, Subpart B: Category 2)
 - consequently a TSO article may not comply with the EASA TC basis on aircraft level
 - the European installer (TC/STC holder) needs additional qualification proof from TSO manufacturer
 - designated Compliance Verification Engineer (CVE) of the installer needs to verify the additional qualification documents



Implications

- Example: Hydraulic Hoses
 - ETSO-2C75 = Proof pressure $2 \times P_w$ (per CS-25, App. J)
 - TSO-C75 = Proof pressure $1.5 \times P_w$
 - To install TSO-C75 hoses in European TC/STC a different test is required
- Same applies vice-versa for ETSO articles installed in U.S. products
- More coordination necessary between installer (DOA) and article manufacturer (ETSOA/TSOA holder)
- TC/STC organizations need to be aware of CS-ETSO, Subpart B and the differences between ETSO and TSO



Implications - Summary

- ETSO articles with EASA Form 1 are acceptable in the U.S.
- TSO articles with FAA Form 8130-3 are acceptable in Europe
 - An installation approval needs to be obtained in any case
 - If the TSO article is qualified against a TSO where the corresponding ETSO is in Category 2 of CS-ETSO, Subpart B then a delta-qualification has to be verified and approved by the installer
 - EASA has published FAQ under the following link:

<http://www.easa.europa.eu/system/files/dfu/TSOA-ETSOA%20Reciprocal%20Acceptance%20coordinated%20FAQs%2009172015.pdf>



Next actions for FAA/EASA

Guidance or policies need to be established for:

- Acceptance of EASA Form 1 issued by a POA of a EU member state or FAA 8130-3 by US manufacturer
- Marking may be TSO or ETSO or European national marking (e.g. JTISO-xxx, QAC-xxx) for articles approved prior to EASA
- Awareness for DOAs about technical differences between ETSO/TSO standards (Cat. 2 in CS-ETSO, Subpart B)
- Awareness for NAAs and maintenance/production organisations about new concept
- Develop a sound Confidence Keeping concept



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Abbreviations

COB	= Certification Oversight Board
BOB	= Bilateral Oversight Board
ETSO	= European Technical Standard Order
ETSOA	= ETSO Authorisation
TSO	= Technical Standard Order
TSOA	= TSO Authorisation
TIP	= Technical Implementation Procedures