



EASA

European Aviation Safety Agency

EASA CS-STAN

GA Seminar

20- / 21-Oct-2015

Köln

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Your safety is our mission.

An agency of the European Union





6 Key Objectives



GA Roadmap:

towards simpler, lighter,
better rules for General Aviation

IFR Flying

Easier access of GA pilots to IFR rating, as a concrete measure that will improve...

Training

By end of 2018 the 3rd option for licensing will be fully developed providing a new system for pilot training outside ATO.

Part-M 'Light'

Work towards a simpler and more proportionate framework for aircraft maintenance license: a Part-M 'Light'.

Technology

Continue development of CS-STAN and other similar tools to enable the use of new technologies which contribute to safety.

Simpler Certification

Towards a simpler framework for certifying LSA aircraft in the short term by increasing support to applicants e.g. workshops, document templates etc. in the long term by amending applicable regulations in order to bring a radical simplification.

Industry standards

Build on the improvements of CS-23/Part-23 on other CS or regulations in order for EASA to focus on its safety objectives and to delegate the preparation of associated standards to industry groups (ASTM, ASD etc.)





CS-STAN -- Set the scene

Basic Regulation

Airworthiness

Initial Airworthiness

Part 21
 A/TC
 STC
 Production Org
 Design Org
 CofA
 Noise
 Parts
 Repairs
 ETSO
 Permit to fly
 B/Authority RQ

AD/LTA
 Airworthiness Directives

Continuing Airworthiness

Part M
 A/Maintenance
 M/F
 CAMO
 B/Authority RQ

Part 145
 Maint Org

Part 66
 Maint Licences

Part 147
 Maint Trg Org

Flight Standards

AIR Crew

Part FCL
 Flight Crew Licences

Conversion
 from National

Non EU
 Licences

Part Medical

Part CC
 Cabin Crew Lic

Part ARA
 Authority Rq

Part ORA
 Organizational Rq

AIR Operations

Definitions

Part ARO
 Authority Rq

Part ORO
 Organizational Rq

Part CAT
 Comm Air Transp

Part SPA
 Special Approvals

Part NCC
 Non-Comm Complex

Part NCO
 Non-Comm oth than Complx

Part SPO
 Special Ops

TC Oper

TCO

ART

ATM/ANS

ATC Licence

Overseight

ANS Providers

AUR/ACAS II

SERA
 Std. European Rules of the Air

Occurrences
 Report - Analysis

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Annex II
 To Basic Regulation

Nationales
Recht

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CS-STAN -- Set the scene

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.Airworthiness

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.Part 21
•.A/TC
•.STC
•.Production Org
•.Design Org
•.CofA
•.Noise
•.Parts
•.Repairs
•.ETSO
•.Permit to fly
•.B/Authority RQ

.AD/LTA
•.Airworthiness
Directives

•.A/M

•.B/Au

•.Main

•.Par

•.Maint Trg

.Part ARA
•.Authority Rq

.Part ORA
•.Organizational
Rq

•.Non-Comm
Complex

.Part NCO
•.Non-Comm
oth than Complx

.Part SPO
•.Special Ops

•.EC 748/2012 New

•.Standard Changes and Repairs

•.CS-STAN

• Changes with same conditions and limitations have been grouped in CS-STAN

•.Common repairs have been included in CS-STAN

/ANS

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•.Licence

•...

•.Seight

•.Providers

•.ACAS II

•.ERA

•.European
of the Air

.Occurrences
•.Report - Analysis

.8,33 khz
.COM

.Annex II
•.To Basic
Regulation

•.Nationales
Recht



Part 21 -- CS-STAN, Phase I

- Eligibility
- Basic Principles of Part 21 – CS-STAN
- Part 21 – Changes - Responsibilities
- CS-STAN Standard Changes
- CS-STAN Standard Repairs
- EASA -Form - Process

**NEW since
August 2015**



CS-STAN -- Phase I, Eligibility

- Eligible for aeroplanes up to 5700 kg and helicopter up to 3175 kg
- Sailplanes, Balloons, and Airships, ELA 1 and ELA 2
- But there are limitations and conditions (aircraft, operation, release to service,..) within each CS-STAN
- No conflict with the TC Holder data is permitted (Limitations)
- Legal basis is 21A.90B and 21A.431B
- CS-STAN is a listing of changes and will be regularly amendet as necessary / possible (Phase 1,...)

Limitations



CS-STAN -- Basic Principles

- Every change of an aircraft design needs an approval
- Possibilities for approvals
 - Directly EASA (Minor or Major Change, STC)
 - DOA (Approved Design Organisation, z.B. TC Holder)
 - **Standard Change/Repair in CS-STAN**
- The installation is done in accordance with the content of the approval and needs a release in accordance with Part-M (Release to Service)
- Installed parts might need a Form 1

NEW



CS-STAN -- Responsibilities

- The „Installer“ is responsible (conditions of applied CS-STAN met, no conflict with the TC Holder data)
- „Installer“ means any natural or legal person „Release to Service“ to be done in accordance with the instructions of the Standard Change (Certifying Staff Part 66, Maintenance Organisation)
- Owner (Operator) or CAMO is responsible for the inclusion of the documents in the technical files, manuals, etc., and the adaption of the Maintenance Programme.





➤ In each CS-STAN it is mentioned what has to be recorded and which documents are necessary

➤ Example:



Additionally, the following applies:

- the equipment is authorised according to the applicable ETSO/JTSO or equivalent;
- the equipment has at least the audio functionality of previous installed equipment, and is compatible with the existing installation;
- the equipment is compatible with connections to existing communication and navigation systems;
- the equipment is qualified for the environmental conditions to be expected during normal operation; and
- instructions and tests defined by the equipment manufacturer are followed.





SUBPART A — GENERAL

CS STAN.00 Scope

CS STAN.10 Applicability

CS STAN.20 Operational limitations or restrictions

CS STAN.30 Changes/Repairs that are not in conflict with TC holders data.

CS STAN.40 Referenced documents

CS STAN.50 Instructions for Continuing Airworthiness

CS STAN.60 Aircraft Flight Manual (AFM) Supplement

CS STAN.70 Acceptable Means of Compliance (AMC)

CS STAN.80 Definitions





CS-STAN - List of Changes (Phase I)

Group Systems—Communication:

CS-SC001a — Installation of VHF voice communication equipment

CS-SC002a — Installation of a Mode S elementary surveillance equipment

CS-SC003a — Installation of Audio Selector Panels and Amplifiers

CS-SC004a — Installation of antennas

Group Systems — Electrical:

CS-SC031a — Exchange of conventional Anti-Collision Lights, Position Lights and Landing & Taxi lights by LED type lights





CS-STAN - List of Changes (Phase I) contd.

Group Systems — Avionics/NAV/Instruments:

CS-SC051a — Installation of 'FLARM' equipment

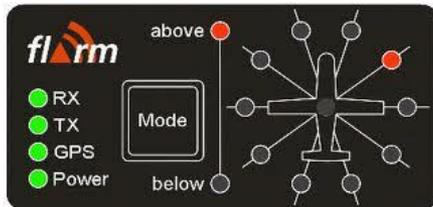
CS-SC052a — Installation of moving-map systems to enhance situational awareness

CS-SC053a — Installation of Radio Marker Receiving equipment

CS-SC054a — Exchange of Distance Measurement Equipment (DME)

CS-SC055a — Exchange of ADF equipment

CS-SC056a — Exchange of VOR equipment





CS-STAN - List of Changes (Phase I) contd.

Group Cabin:

CS-SC101a — Installation of Emergency Locator Transmitter (ELT)



Group Survivability Equipment:

CS-SC151a — Installation of headrest

CS-SC152a — Changes to seat cushions including the use of alternative foam materials

CS-SC153a — Exchange of safety belts — torso restraint systems



Group Powerplant:



CS-SC201a — Exchange of power plant instruments

CS-SC202a — Use of Avgas UL 91

CS-SC203a — Use of Avgas Hjelmcø 91/96 UL and 91/98 UL

CS-SC204a — Installation of external powered engine preheater

AVGAS UL 91



CS-STAN - List of Changes (Phase I) contd.

Group Flight:

CS-SC251a — Installation of an Angle of Attack (AoA) indicator system

Group Miscellaneous:

CS-SC401a — Exchange of basic flight instruments

CS-SC402a — Installation of sailplane equipment





CS-STAN - Repairs (Phase I)

LIST OF STANDARD REPAIRS

CS-SR801a — Aircraft Repair according to FAA Advisory Circular AC 43.13-1B

CS-SR802a — Repair of Sailplanes, Powered Sailplanes, LSA and VLA

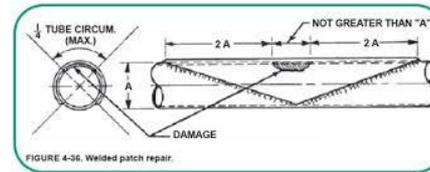
- FAA AC 43.13-1B
- Only ELA 2 non complex
- Limitations (i.e. critical parts)
- Repairs of sailplanes

for composite structures:

- , 'Kleine Fiberglas Flugzeug Flickfibel' by Ursula Hänle⁴, and

for wooden and mixed structures on sailplanes and powered sailplanes:

- 'Standard Repairs to Gliders' by the British Gliding Association⁵, or
- , 'Werkstattpraxis für den Bau von Gleit- und Segelflugzeugen' by Hans Jacobs.





CS-STAN – Form & Process

➤ Files on EASA website for CS-STAN

<http://easa.europa.eu/document-library/agency-decisions/ed-decision-2015016r>

➤ Form EASA 123



Adobe Acrobat
Document



EASA
European Aviation Safety Agency

Thank you for your attention

Your safety is our mission.

An agency of the European Union 