



EASA
European Aviation Safety Agency

Product Certification and Design Organisation Approval Workshop

22nd -23rd November 2016

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TE.GEN.00409-001



EASA
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RMT.0690 CS-STAN regular updating

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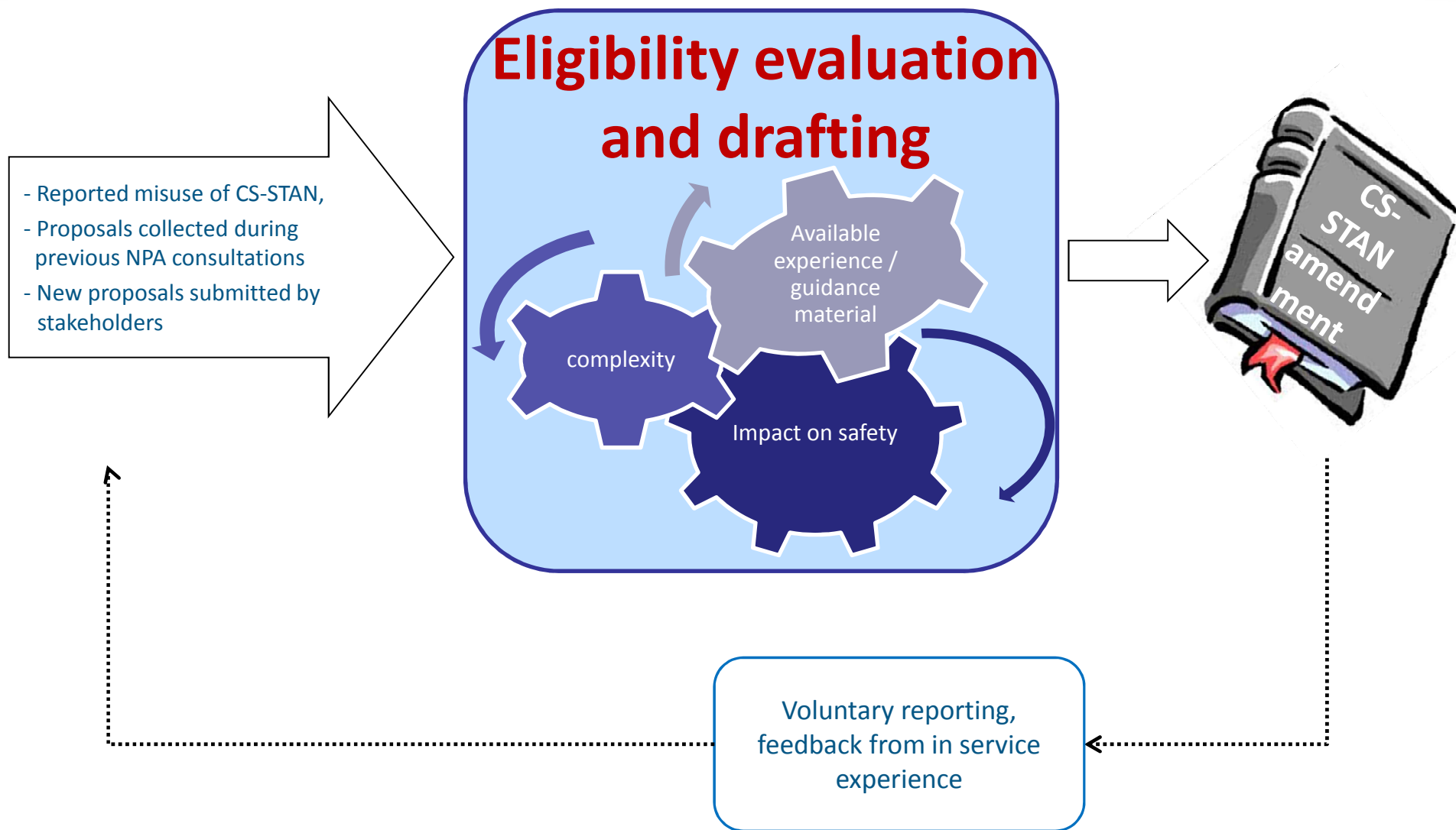


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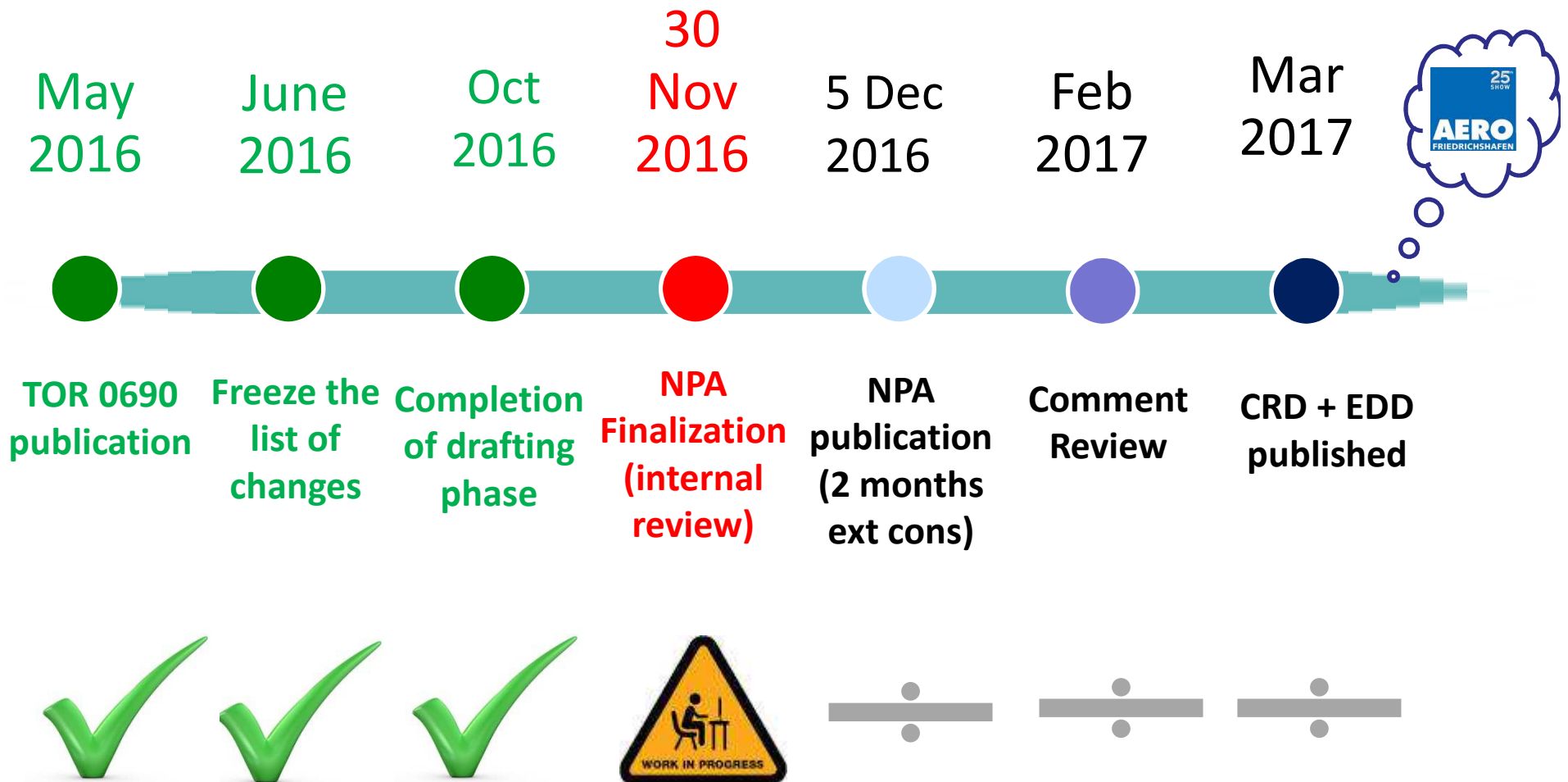


THE CS-STAN EVOLUTION PROCESS



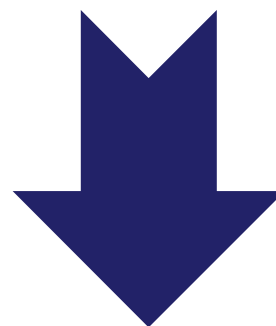


ROADMAP x CS-STAN ISSUE 2





CS-STAN Initial Issue	# of Standard Changes	# of Standard Repairs
	16	2



Draft CS-STAN Issue 2	# of Standard Changes				# of Standard Repairs			
	Un- changed	amended	new	total	Un- changed	amended	new	total
	9	7	13	29	1	1	2	4



AMENDMENTS PROPOSED IN CS-STAN ISSUE 2

SUBPART A - General

- New **VOLUNTARY reporting system** is proposed to support future CS-STAN evolutions. Stakeholders may:
 - submit proposals for new SC/SR or for improvements of the existing ones
 - provide feedback to improve the existing SC/SR
 - voluntary report the utilization of CS-STAN for statistical purposes.
- The Scope has been expanded to provide additional **clarifications regarding the release to service** of aircraft modified or repaired according to CS-STAN
- Additional explanations have been provided to further **clarify the operational limitations and restrictions** to the use of SCs/SRs with regard to installation of equipment.
- **Clarifications** have been added regarding the prevention **of conflict between SCs/SRs provisions and TC holder's data**



AMENDMENTS PROPOSED IN CS-STAN ISSUE 2

SUBPART B – Standard Changes

- **CS-SC002b - Installation of a Mode S elementary surveillance equipment (amended)**
This SC has been amended to remove the reference to CS-ACNS Section 4 to prevent possible misinterpretation.
- **CS-SC032a - Installation of anti-collision lights (new)**
New provisions have been added to facilitate the installation of anti-collision lights for aircraft not originally certified with anti-collision lights. The Agency expects that this could have a positive impact on the prevention of mid-air collision.
- **CS-SC033a - Replacement of existing battery by Lithium Iron Phosphate (LiFePO4) Batteries (new)**
New provisions have been added for the replacement of conventional type batteries by LiFePO4 type batteries as storage in aircraft.
- **CS-SC034a – Installation of conventional cabin and cockpit lights by led type lights (new)**
New provisions have added to facilitate the installation or exchange of cabin and cockpit lights by LED type lights.
- **CS-SC051b - installation of 'FLARM' equipment (amended)**
This SC has been amended to include provisions for the exchange of already installed FLARM equipment.



AMENDMENTS PROPOSED IN CS-STAN ISSUE 2

- **CS-SC052b - Installation or exchange of VFR GNSS equipment/moving-map systems to enhance situational awareness (amended)**

The scope of this SC has been extended to include provisions for the exchange of already installed VFR GNSS equipment/ moving-map systems.

The applicability extended (up to 2721kg MTOM) for further harmonization with FAA Advisory Circular, AC 20-138D 'Airworthiness Approval of Positioning and Navigation Systems'.
- **CS-SC057a - Inst of a GPS system to enhance situational awareness and to support VFR nav. (new)**

New provisions have been added to allow the installation of a GPS system intended to enhance situational awareness and to support VFR navigation.
- **CS-SC058a - Installation of traffic awareness beacon system (TABS) equipment (new)**

New provisions have been added to allow the installation of TABS devices are intended for voluntary equipage on aircraft not required to carry a transponder or Automatic Dependent Surveillance - Broadcast (ADS-B) equipment. The installation of TABS will enable an aircraft to be visible to ANSP and other a/c.

According to the provisions included in this SC, the equipment shall be authorised according to ETSO-2C199. This ETSO will be published as part of CS-ETSO amendment 13 which is planned for Q3-2017.
- **CS-SC081a - Exchange of tyres (inner tubes / outer tyres) (new)**

New provisions have been added to allow the replacement of tyres (i.e. the change of inner tubes and/or outer tyres). This may be required for changing a damaged tyre or installation of a different tube / tyre of the same size and strength. Applicable to sailplanes and powered sailplanes



AMENDMENTS PROPOSED IN CS-STAN ISSUE 2

➤ **CS-SC082a - Exchange of skids on wing tips / fuselage tails (new)**

New provisions have been added to allow replacement of skids, typically made of rubber or other elastic material, installed on fuselage tails and/or wing tips. Applicable to sailplanes and powered sailplanes.

➤ **CS-SC083a - Exchange of flexible seals on control surfaces (new)**

New provisions have been added to allow replacement of flexible seals as installed on control surfaces on wings and empennages. Applicable to sailplanes, powered sailplanes, LSA and VLA.

➤ **CS-SC102a – Inst. of DC Power Supply Systems for Portable Electronic Devices (new)**

New provisions have been added to allow the Installation of DC Power Supply Systems (PSS) which connect aeroplane electrical power to Portable Electronic Devices (PED).

➤ **CS-SC103a - Exchange of interior material covering floor, sidewall and ceiling (new)**

New provisions have been added to allow the exchange of existing floor, sidewall and ceiling coverings.

➤ **CS-SC104a – New Installation of lightweight in-flight recording systems (new)**

New provisions have been added to allow the installation of lightweight in-flight recording systems for the purposes of operational monitoring, training and incident analysis.

➤ **CS-SC202b – Use of Aviation Gasoline (AVGAS) UL 91 (amended)**

The scope of this SC has been amended to include guidance provided by the latest FAA Special Airworthiness Information Bulletin SAIB HQ-16-05R1.



AMENDMENTS PROPOSED IN CS-STAN ISSUE 2

➤ **CS-SC203b – Use of Aviation Gasoline (AVGAS) HJELMCO 91/96 UL AND 91/98 UL (amended)**

The scope of this SC has been amended to include guidance provided by the latest FAA Special Airworthiness Information Bulletin SAIB HQ-16-05R1.

➤ **CS-SC205a – Installation of Fuel Low Level Sensor (new)**

New provisions have been added to allow the installation of Fuel Low Level Sensors for aircraft not already equipped with similar system.

The installed Fuel Low Level Sensor will improve the Situational awareness and should positive contribute on the prevention of fuel starvation occurrences.

➤ **CS-SC251b – Installation of an Angle of Attack (AOA) indicator system (amended)**

The scope of this SC has been amended to include alternative process to check the proper application of ASTM F3011-13 standard for the AoA to be installed.

➤ **CS-SC401b – Exchange of basic flight system instruments (amended)**

The scope of this SC has been amended to allow the exchange of certain combinations of different systems.

➤ **CS-SC403a – Provisions for the installation of lightweight cameras (new)**

New provisions have been added to allow the installation of aircraft mounted lightweight cameras.



AMENDMENTS PROPOSED IN CS-STAN ISSUE 2

SUBPART C – Standard Repairs

➤ **CS-SR802b – Repair of sailplanes, powered sailplanes, LSA and VLA (amended)**

The scope of this SC has been amended to allow the utilization of an additional French standard for skin repairs.

➤ **CS-SR803a – Repairs of canopy cracks by drilling a stopping hole (new)**

New provisions have been added to allow the repairs of certain cracks in transparent canopy made from acrylic glass by drilling a stopping hole.

➤ **CS-SR804a – Use of Epoxy Resin for minor repairs of wood and wooden mixed structures (new)**

New provisions have been added to allow the use of epoxy resin system to perform certain repairs on wood and wooden mixed aircraft structures.

The main advantage of this process is that during the curing time no high contact pressure is necessary.



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Questions..?

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