



EASA
European Aviation Safety Agency

EASA Rulemaking Update

14th ETSO Workshop, Cologne

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Parts & Appliances Section Manager

19 September 2018

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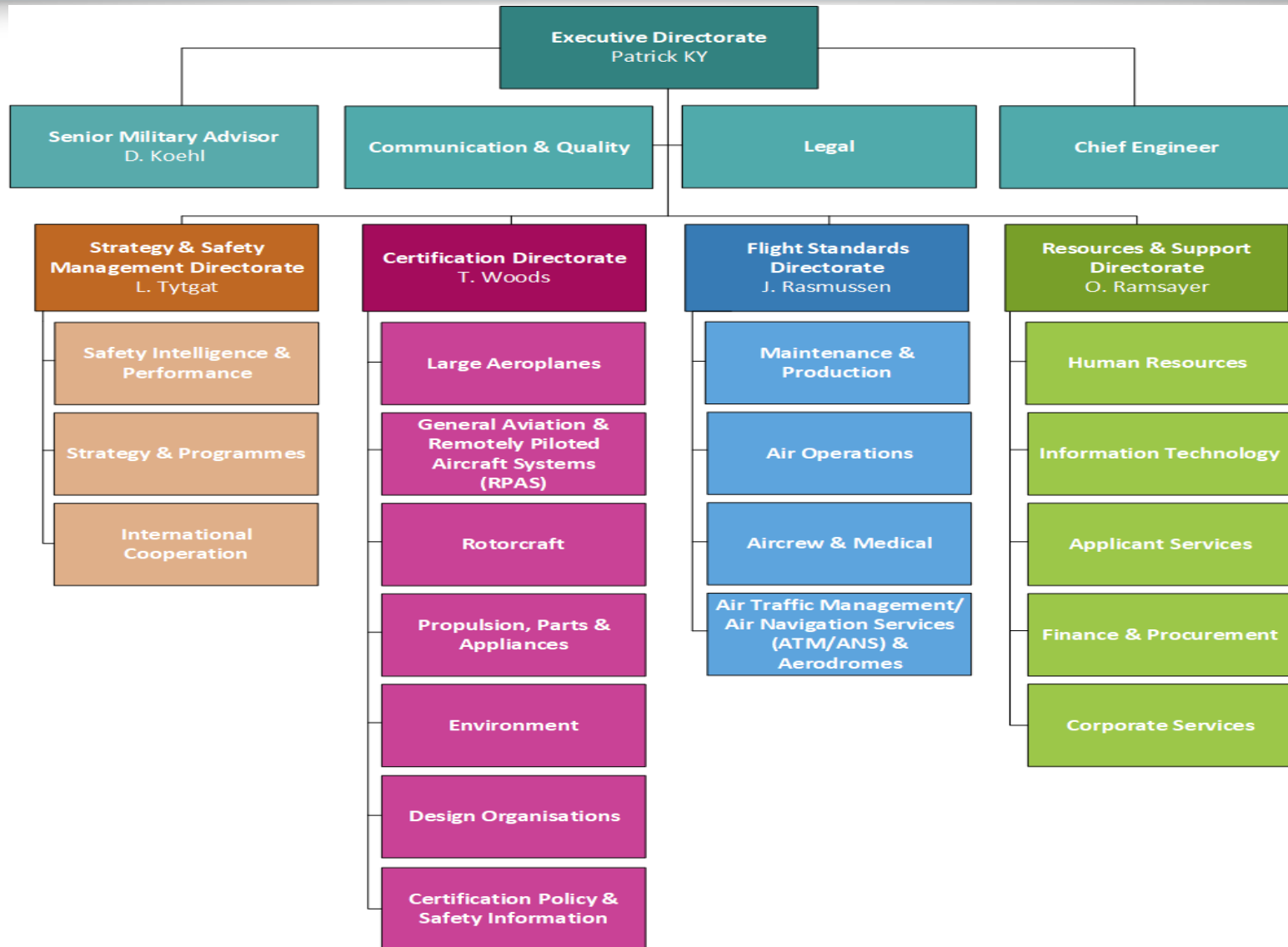


Outline

- Organisational updates
- Rulemaking updates
- Useful links

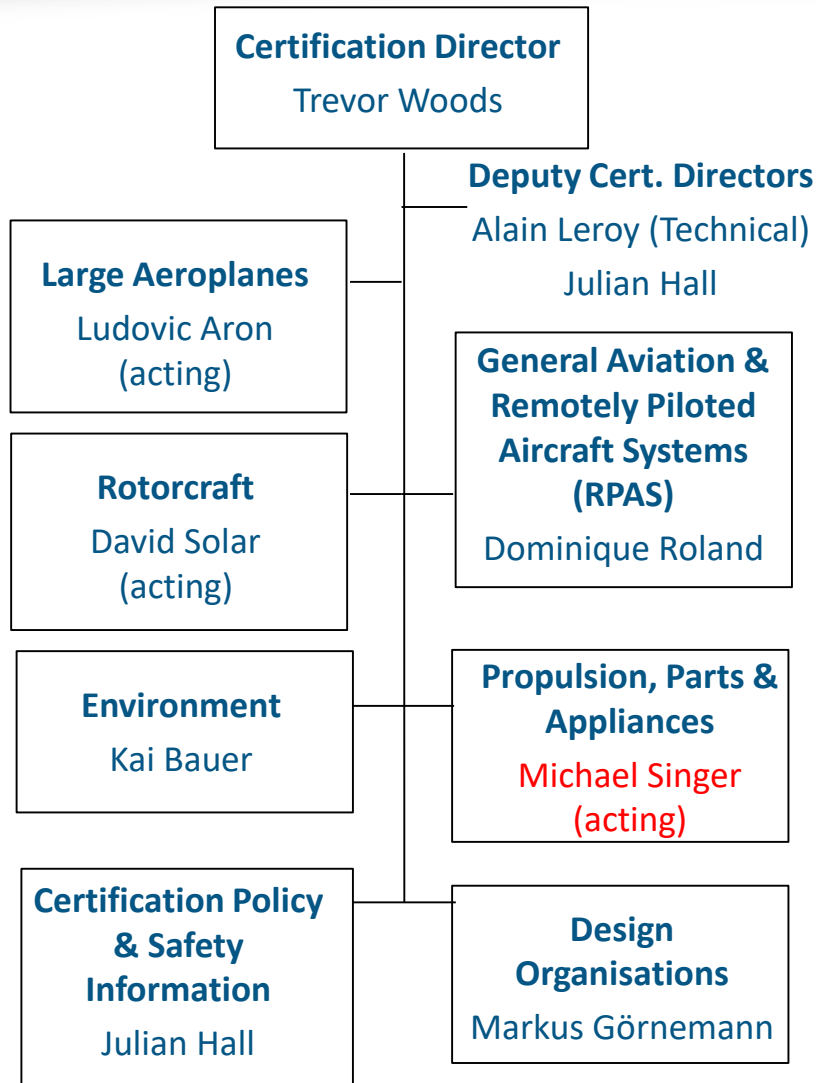


The Agency Structure





Certification Directorate (as of Sept. 2018)



Product Departments:

- PCMs
- Rulemaking Officers
- Technical Experts



- CS-ETSO Amdt. 13 – published!
- NPA 2017-08 was on public consultation until 31/08/2017
- 55 comments received from 13 stakeholders
- ED Decision 2018/002/R published on 19 February 2018



Update of CS-ETSO

➤ CS-ETSO Amdt. 13 (cont.)

ETSO-C1e	Cargo Compartment Fire Detection Instruments
ETSO-C16b	Electrically Heated Pitot and Pitot-Static Tubes
ETSO-C23f	Personnel Parachute Assemblies and Components
ETSO-C30d	Aircraft Position Lights
ETSO-C59b	Airborne Selective Calling Equipment
ETSO-C63e	Airborne Weather Radar Equipment
ETSO-C78a	Crewmember Demand Oxygen Mask



➤ CS-ETSO Amdt. 13 (cont.)

ETSO-C96b	Anticollision Light System
ETSO-C115d	Required Navigation Performance (RNP) Equipment using Multi-Sensor Inputs
ETSO-C118a	Traffic Alert and Collision Avoidance System I (TCAS I)
ETSO-C123c	Cockpit Voice Recorder Systems
ETSO-C124c	Flight Data Recorder Systems
ETSO-C145e	Airborne Navigation Sensors Using the Global Positioning System Augmented by the Satellite-Based Augmentation System
ETSO-C146e	Stand-Alone Airborne Navigation Equipment Using the Global Positioning System Augmented by the Satellite-Based Augmentation System



Update of CS-ETSO

► CS-ETSO Amdt. 13 (cont.)

ETSO-C155b	Recorder Independent Power Supply
ETSO-C159c	Next Generation Satellite Systems (NGSS) Equipment
ETSO-C166b A3	Extended Squitter Automatic Dependent Surveillance-Broadcast (ADS-B) and Traffic Information Services-Broadcast (TIS-B) Equipment Operating on the Radio Frequency of 1090 Megahertz (MHZ)
ETSO-C176a	Aircraft Cockpit Image Recorder Systems
ETSO-C199	Traffic Awareness Beacon System (TABS)
ETSO-C203 A1	Fire containment cover (FCC)
ETSO-C209	Electronic Flight Instrument System (EFIS) Display



Update of CS-ETSO

➤ CS-ETSO Amdt. 13 (cont.)

ETSO-C210	Airborne Head Up Display
ETSO-2C514a	Airborne Systems For Non-Required Telecommunication Services (In Non-Aeronautical Frequency Bands) (ASNRC)

ETSO-C97 Lithium Sulfur Dioxide Batteries, was cancelled as considered obsolete. Applicants for lithium sulphur dioxide batteries (LiSO₂), or for major design changes thereof, must comply with ETSO-C142a.



- CS-ETSO Amdt. 14 for IMA – Published!
 - Integrated Modular Avionics – Phase 2 (ETSO-C214)
 - NPA 2017-11 was on public consultation until 25/09/2017
 - 135 comments received from 19 stakeholders
 - ED Decision 2018/008/R published on 27 August 2018



Update of CS-ETSO

- CS-ETSO Amdt. 15 – work in progress!
- It will include 4 new standards and several amendments (28, so far!):

ETSO-C10c	Pressure Altimeter Systems
ETSO-C13g	Life Preservers
ETSO-C20a	Combustion Heaters and Accessories
ETSO-C43d	Temperature Instruments
ETSO-C117b	Airborne Windshear Warning and Escape Guidance Systems for Transport Airplanes
ETSO-C123d	Cockpit Voice Recorder Equipment



➤ CS-ETSO Amdt. 15 (cont.)

ETSO-C124d	Flight Data Recorder Equipment
ETSO-C126c	Emergency Locator Transmitter
ETSO-C127c	Rotorcraft, Transport Aeroplane, and Small Aeroplane Seating Systems
ETSO-C142b	Non Rechargeable Lithium Batteries and Battery System
ETSO-C145e	Airborne Navigation Sensors Using The Global Positioning System Augmented By The Satellite Based Augmentation System (SBAS)
ETSO-C146e	Stand-Alone Airborne Navigation Equipment Using The Global Positioning System Augmented By The Satellite Based Augmentation System (SBAS)
ETSO-C151d	Terrain Awareness and Warning Systems (TAWS) [TBC]



► CS-ETSO Amdt. 15 (cont.)

ETSO-C159d	Next Generation Satellite Systems (NGSS) Equipment
ETSO-C160b	VDL Mode 2 Communication Equipment
ETSO-C161b	Ground Based Augmentation System Positioning and Navigation Equipment
ETSO-C162b	Ground Based Augmentation System Very High Frequency Data Broadcast Equipment
ETSO-C164a	Night Vision Goggles
ETSO-C168	Aviation Visual Distress Signals
ETSO-C176b	Cockpit Image Recorder Equipment
ETSO-C177b	Data Link Recorder Equipment



➤ CS-ETSO Amdt. 15 (cont.)

ETSO-C196b	Airborne Supplemental Navigation Sensors for Global Positioning System Equipment using Aircraft-Based Augmentation
ETSO-C197a	Information Collection and Monitoring System
ETSO-C199A1	Traffic Awareness Beacon System (TABS)
ETSO-C204a	Circuit Card Assembly Functional Sensors using Satellite-Based Augmentation System (SBAS) for Navigation and Non-Navigation Position/Velocity/Time Output.
ETSO-C205a	Circuit Card Assembly Functional Class Delta Equipment using the Satellite-Based Augmentation System for Navigation Applications.
ETSO-C206a	Circuit Card Assembly Functional Sensors using Aircraft-Based Augmentation for Navigation and Non-Navigation Position/Velocity/Time Output.



Update of CS-ETSO

➤ CS-ETSO Amdt. 15 (cont.)

ETSO-2C19cA1	Portable Water-Solution Type Hand Fire Extinguishers
ETSO-(2)CXXX	121.5 MHz Homing Device
ETSO-(2)CYYY	Automatic Deployable Flight Recorders
ETSO-2C518	Runway Overrun Awareness and Alerting System
ETSO-2CZZZ	Emergency Breathing System (EBS)

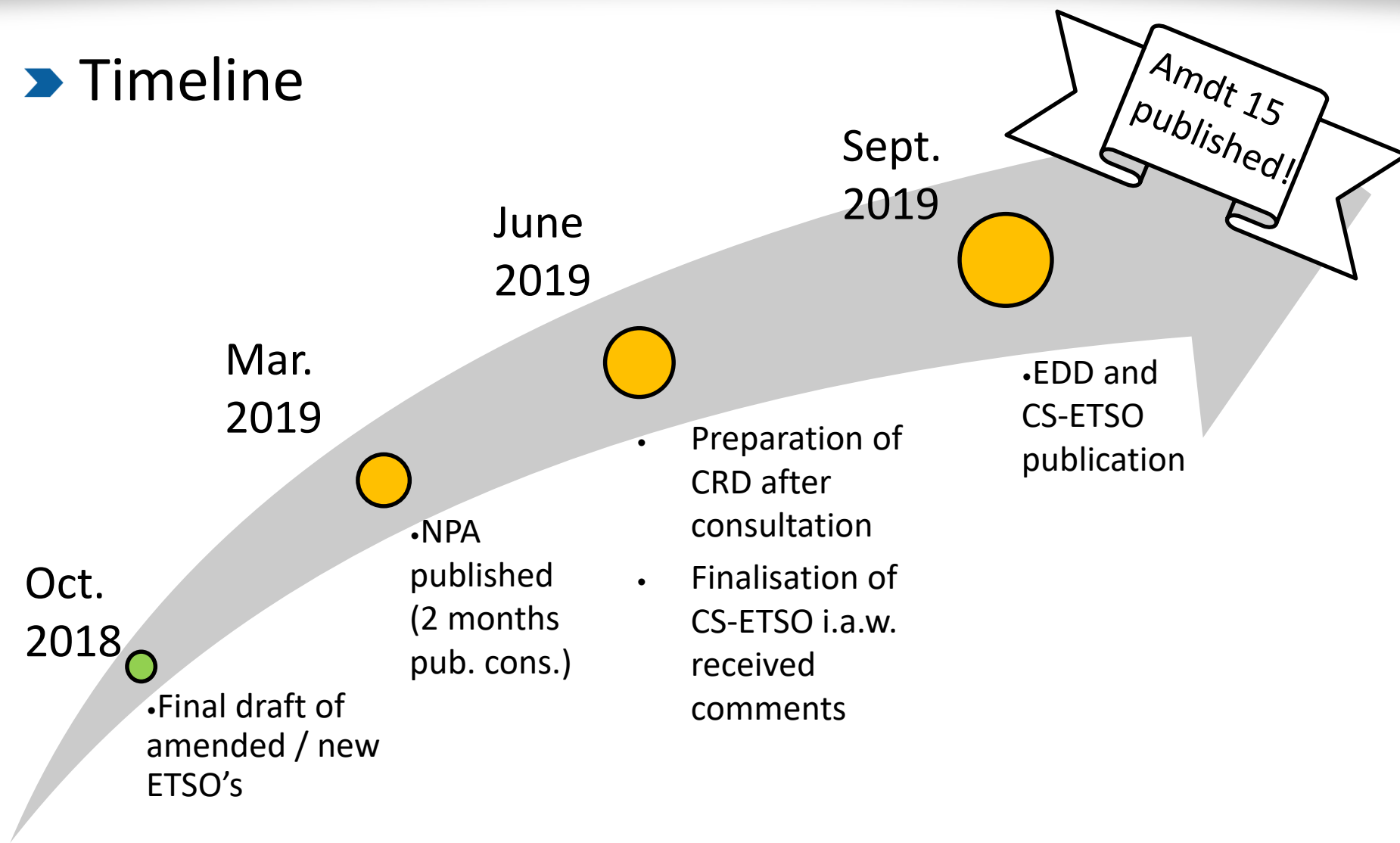
Note: NEW ETSO!

➤ CS-ETSO Subpart A will be amended to update some reference documents (AMC in lieu of Cert Memos)



Update of CS-ETSO

► Timeline





Bilateral Agreements

Update for U.S. – EU bilateral agreement

- Technical Implementation Procedures (TIP) Rev. 6 (now 6.1) was signed Sept. 2017, effective March 2018
 - Full reciprocal acceptance of TSO/ETSO without any exceptions:
APU, Integrated Modular Avionics (IMA), active ULD and parachutes are fully accepted

Update for Canada – EU bilateral agreement

- List of Common CAN-TSO/ETSO is at Rev. 2 and can be found [here](#)



Useful links – ETSO page



<http://www.easa.europa.eu/certification/ETSO-authorisations.php>



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in Canada

EASA Part-145 Organisations located
in the USA

Foreign Part 145 Organisations

Foreign Part 147 Organisations

Part-M Approvals Foreign CAMO
Subpart G

Part-M Subpart F Organisations

Design Organisations

Design Organisations Approvals

ETSO authorisations

List of current ETSOs

List of all (current & historic) ETSOs

International Maintenance Review Board
Policy Board (IMRBPB)

Manufacturer Scheduled Maintenance
Requirements

Permit to fly

Production Organisations Approvals



ETSO authorisations

ETSO Authorisations are issued in accordance with Part 21, Section A, Subpart O of
[Commission Regulation \(EC\) No 748/2012](#).

European Aviation Safety Agency (EASA)

Parts & Appliances Section

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Please use [Form 34](#) for the application for an ETSO Authorisation.

After request by the Agency technical data can be electronically submitted using the [EASA
Filebox](#) service.



Downloads



Related Content



DOWNLOADS

List of ETSO Authorisations



List of parachutes approvals issued by NAAs prior to EASA



Summary of ETSO Approved deviations



Summary of ETSO Rejected deviation



List of current ETSOs



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List of current ETSOs

List of all (current & historic) ETSOs



List of current ETSOs

List of current ETSOs as per CS-ETSO amendment 10

EASA ETSO	Issue	Subject Title	Valid from	Introduced by RM Task	Category
Subpart A	Update	CS-ETSO Subpart A	12/07/2013	CS-ETSO/8	Subpart A
ETSO-C1c	New	Cargo Compartment Fire Detection Instruments	24/10/2003	CS-ETSO/Initial Issue	Rescue
ETSO-C2d	New	Airspeed Instruments	24/10/2003	CS-ETSO/Initial Issue	Avionics
ETSO-C3d	New	Turn and Slip Instruments	24/10/2003	CS-ETSO/Initial Issue	Avionics
ETSO-C4c	New	Bank and Pitch Instruments	24/10/2003	CS-ETSO/Initial Issue	Avionics
ETSO-C5e	New	Direction Instrument, Non-magnetic (Gyroscopically Stabilized)	24/10/2003	CS-ETSO/Initial Issue	Avionics
ETSO-C6e	Update	Direction Instrument, Magnetic (Gyroscopically Stabilized)	21/12/2010	CS-ETSO/6	Avionics
ETSO-C7d	New	Direction Instrument, Magnetic Non-stabilized Type (Magnetic Compass)	24/10/2003	CS-ETSO/Initial Issue	Avionics



List of all ETSOs



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Foreign Part 147 Organisations

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List of current ETSOs

List of all (current & historic) ETSOs



List of all (current & historic) ETSOs

List of all (current & historic) ETSOs as per CS-ETSO amendment 9

EASA ETSO	Issue	Subject Title	Valid from	Valid until	Introduced by RM Task	Cancelled by RM Task	Category
Subpart A	Update	CS-ETSO Subpart A	12/07/2013	-	CS-ETSO/8	-	Subpart A
Subpart A	Update	CS-ETSO Subpart A	05/07/2012	12/07/2013	CS-ETSO/7	CS-ETSO/8	Subpart A
Subpart A	Update	CS-ETSO Subpart A	21/12/2010	12/07/2013	CS-ETSO/6	CS-ETSO/8	Subpart A
Subpart A	Update	CS-ETSO Subpart A	28/11/2008	12/07/2013	CS-ETSO/3	CS-ETSO/8	Subpart A
Subpart A	New	CS-ETSO Subpart A	24/10/2003	12/07/2013	Initial issue	CS-ETSO/8	Subpart A
ETSO-C1c	New	Cargo Compartment Fire Detection Instruments	24/10/2003		CS-ETSO/Initial Issue		Rescue
ETSO-C2d	New	Airspeed Instruments	24/10/2003		CS-ETSO/Initial Issue		Avionics



Useful links – Cert Memos



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Certification Memoranda

Type Certificate Data Sheets (TCDS)

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EASA Product Lists

Type Certificates Information

Supplemental Type Certificates

Specific Airworthiness Specifications (SAS)

Specific Airworthiness Specifications (SASs) information

Master Minimum Equipment Lists (M MEL)

Information on the transition of M MEL/OEB Reports to OSD

Supplemental Type Certificate M MEL Supplements

Operations Evaluation Board Reports (OEB) / Operational Suitability Data (OSD)

Certification Memoranda

EASA Certification Memoranda (CM) clarify the Agency's general course of action on specific certification items. They are intended to provide guidance on a particular subject and, as non-binding material, may provide complementary information and guidance for compliance demonstration with current standards. Certification Memoranda are provided for information purposes only and must not be misconstrued as formally adopted Acceptable Means of Compliance (AMC) or Guidance Material (GM). Certification Memoranda are not intended to introduce new certification requirements or to modify existing certification requirements and do not constitute any legal obligation.

The hereby presented Certification Memoranda have been accepted by the Agency following a public consultation.



Downloads



CM Subject	Issue	Revision	Date	Supporting docs
EASA CM-HS-004 CS 27/29,865 Safety considerations covering External Loads [2]	01	00	25/07/2016	EASA Proposed CM-HS-004 CRD EASA Proposed CM-HS-004
EASA CM-AS-006 Certification of airborne systems using Light Amplification by Stimulated Emission of Radiation (LASER) with high energy [2]	01	00	10/06/2016	EASA Proposed CM-AS-006 [2] CRD EASA Proposed CM-AS-006 [2]

<http://www.easa.europa.eu/document-library/public-consultations/certification-memoranda>



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