



Rejected Deviations for CS-ETSO

Introductory note

The hereby presented deviations have been rejected by the Agency for an ETSO authorisation. The deviations requests were applied for by Industry and were submitted to a public consultation in accordance with EASA Management Board Decision n°7-2004 as amended by EASA Management Board Decision No 12-2007¹ for products certification procedure dated 30 March 2004, Article 3 (2.). To ease tracking the deviations are presented in the order of the ETSO number without taking the CS-ETSO index into account.

Rejected Deviations

No Deviation ETSO-A.2.3#1 – Electronic Hardware

Deviate from CS-ETSO Subpart A 2.3 and use an ASIC being designed before EUROCAE ED-80/RTCA DO-254 had been published without having the necessary documentation of the design process available but having positive in service experience.

Published in [ETSO.DevP.72](#) from 06. February 2012 to 28. February 2012.

No comments were received.

No Deviation ETSO-C30c#2 – Aircraft Position Lights

Deviate from SAE AS 8037 (or AS 8037A) 4.2.7 and allow the use other test categories than A for the Explosion Proofness test in accordance with section 9 of EUROCAE ED-14()/RTCA DO-160().

Published in [ETSO.DevP.73](#) from 23. January 2012 to 15. February 2012.

No comments were received.

No Deviation ETSO-C57a#5 – Headsets and Speakers

Deviate from RTCA DO 214 Section 2.3.8.4, 2.6.2.8 and reduce the force for the cord-connector pull-out tests at the headset side from 5.0 kg to 1.0 kg for in-ear equipment.

This test is not applicable for the cord – headset interface.

Published in [ETSO.DevP.27](#) from 19.12.2008 to 23. January 2009.

No comments were received.

ETSO-C52b#1 – Flight directors

Deviate from ETSO-C52B §3.1.1 which is based on SAE AS8008 (Flight Director Equipment) which requires in its §3.5 (a) the continuous display of selected heading (If applicable). The proposed Equivalent Level of Safety for SAE AS8008 §3.5 (a) requirement was based on the human factor logic of the installation for pre-selected heading and selected heading in the various heading modes.

¹ Cf. EASA Web: <http://easa.europa.eu/management-board/meetings/2007/04/MB%20Decision%2012-2007%20amending%20the%20certification%20procedure.pdf>

The assessment of this specific human factor implementation can only be performed at the installation level and cannot be assessed in isolation at the ETSO level. This deviation would consist in not implementing completely a requirement and compensating it by filling a deviation with a limitation to a specific installation such as “for installation on XXX only”. The acceptability of the limitation could only be determined by the assessment of the cockpit installation.

Published in [ETSO.DevP.66](#) from 30.08.2011 to 20.09.2011.

No comments were received.

ETSO-C57a#8 – Headsets and Speakers

Deviate from RTCA DO-214 2.3.2.1 and measure the Distortion criteria using an input signal of 10 mW (RMS) generating a sound pressure level of at least 110 dB (re: 20 µPa) instead of measuring the Distortion with a sound pressure level of 110 dB (re: 20 µPa)

Published in [ETSO.DevP.52](#) from 16.8.2010 to 6.9.2010.

CRD document: [CRD DevP52](#).

ETSO-C78 – Crewmember demand oxygen masks

Several deviations were submitted to EASA. Refer to deviations #1, #2 and #3 in [ETSO.DevP.01](#). These deviations could not be accepted because the other submitted deviations #5 and #6 for ETSO-C89 could not be accepted. See below for details.

Published in [ETSO.DevP.01](#) from 31.01.2007 to 01.03.2007 initially, than extended to 02.4.2007.

CRD document: CRD DevP01.

ETSO-C89 – Oxygen regulators demand

Several deviations were submitted to EASA. Refer to deviations #4, #5 and #6 in [ETSO.DevP.01](#).

It was concluded that deviations #5 and #6 to ETSO-C89 were not specific to one product but were related to a rule change. The conclusion was that compensating factors or design features were not provided to allow granting these deviations (as per 21A.610) and that the applicant should approach EASA to initiate an ETSO change. This should close the deviation request process on this product.

Published in [ETSO.DevP.01](#) from 31.01.2007 to 01.03.2007 initially, than extended to 02.4.2007.

CRD document: [CRD DevP01](#).

ETSO-C96a - Anticollision Light Systems

A deviation from SAE AS 8017A or AS 8017B section 3.2.2 was required in order to omit the provision of an effective light intensity of 20 Candelas or more at angles of 30° to 75° above or below the horizontal plane for Class II (Fixed Wing Aircraft) Anticollision Lights. There are aircraft in service having a certification basis before FAR 25-41 e.g. the Boeing Model 747-200B not meeting the current position light requirements but looking for replacement of the position light source by using modern LED technology instead of a rotary beacon. On aircraft level, the corresponding 14CFR § 21.101 (b) allows to use the earlier amendment of the airworthiness code in case the change is not significant and the replacement of the Anticollision Light is considered a non significant change using the criteria of 21A.101 including the corresponding guidance material.

21A.101 (a) requires as a first principle to use the airworthiness code applicable at the date of application to design the change. The special provisions of 21A.101 (b) may not

be used to substantiate an equal level of safety. It would be possible to modify the lens as well to meet the current requirements. The equipment could be certified to ETSO-C96a Class I or Class III not having a light distribution requirement above/below 30° and higher light intensities than required by that standards but requested by FAR 25.1401 Amdt. 25-27 could be demonstrated. Consequently, the requested deviation for Class II unit was rejected.

Published in [ETSO.DevP.68](#) from 27.10.2011 to 20.11.2011.

No comments were received.

ETSO-2C104a – MLS Airborne Receiving Equipment

This deviation was rejected because the ETSO application was withdrawn since there were other deviations that could not be processed as part of the ETSO process. These deviations had to be assessed at the installation level.

Published in [ETSO.DevP.15](#) from 27.07.2007 to 27.08.2007.

CRD document: [CRD DevP15.](#)

ETSO-2C112b#4 AIR TRAFFIC CONTROL RADAR BEACON SYSTEM/MODE SELECT (ATCRBS/MODE S) AIRBORNE EQUIPMENT

EUROCAE ED-73B 3.21.2.6 c No means are provided to disable acquisition squitters when extended squitters are being emitted. The requirement is considered optional.

Published in [ETSO.DevP.43](#) from 20.11.2009 to 11.12.2009.

No comments received.

ETSO-C129a (Airborne Supplemental Navigation System using GPS) and CS-ETSO-2C104a (MLS receiver)

These deviations were rejected because the ETSO application was withdrawn since some of these deviations plus other ones that were announced but not yet published could not be processed as part of the ETSO process. These deviations had to be assessed at the installation level.

Published in [ETSO.DevP.16](#) from 29.08.2007 to 24.09.2007.

CRD document: [CRD DevP16.](#)

ETSO-C145c (Airborne Navigation Sensors Using the Global Positioning System Augmented by the Satellite Based Augmentation System) and ETSO-C146c (Stand alone airborne navigation equipment using the Global Positioning System augmented by the satellite based augmentation system)

Deviate from RTCA DO-229D §2.1.1.3.3 “SBAS Satellite Pseudorange Determination” by not computing pseudoranges to SBAS satellites and by proposing operational limitations. This deviation is rejected since the proposed equivalent level of safety does not guarantee minimum continuity and availability performance at all places and all times and it negates international global interoperability of SBAS.

Published in [ETSO.DevP.80](#) from to 13.07.2012 to 24.08.2012

CRD document: [CRD.DevP.80.](#)

ETSO-2C514#2 Airborne Systems for Non Required Telecommunication Services (In Non Aeronautical Frequency Bands) (ASNRT)

Deviate from ETSO-2C514, Appendix 1, Chapter 4 and do not require the Electrostatic Discharge testing in accordance with EUROCAE ED-14E/RTCA DO-160E Section 25.

The equipment in question does have controls to be operated in the cockpit environment. Consequently the described test is needed to fully demonstrate CS XX.1301, XX.1309 aspects. Aim of the ETSO is to demonstrate that the intended function can be kept under the operating and environmental conditions. For units having control elements it has to be anticipated that the pilot is touching the unit when operating the controls. The intent of the test is to demonstrate that potential arcing, which may occur based on static discharging, is not impairing the equipment or its functionality.

Published in [ETSO.DevP.40](#) from 30.07.2009 to 21.08.2009.

CRD document [CRD.DevP40](#).

Revision History

- Rev. 0: issued 28.11.2007 covers the rejection of deviations published in ETSO.DevP.01, ETSO.DevP.15 and ETSO.DevP.16.
- Rev. 1: issued 17.12.2009 covers ETSO.DevP.27, ETSO.DevP.40, ETSO.DevP.43.
- Rev. 2: issued 21.11.2011 covers ETSO.DevP.52, ETSO.DevP.66, ETSO.DevP.68 and includes the amendment of EASA Management Board decision n°7-2004.
- Rev. 3: issued 13.04.2012 covers ETSO.Dev.P72, ETSO.Dev.P73.
- Rev. 4 issued 06.09.2012 covers ETSO.Dev.P80