



# Explanatory Note to Decision 2013/012/R

## CS-ETSO AMENDMENT 8

RELATED NPA 2012-16 — RMT.0186 (ETSO.008) — 12/07/2013

### EXECUTIVE SUMMARY

The scope of this Decision is to amend CS-ETSO including Subpart A and adding, updating or deleting some ETSO from index 1 or 2. Whenever possible, the ETSOs are included in index 1, which means that their content is equivalent to the corresponding FAA TSO standards for parts and appliances. The scope of this task was outlined in the Terms of Reference (ToR) RMT.0186 (ETSO.008), Issue 3, of 8 February 2012.

Specific objective of the task was to incorporate new standards and transpose updated FAA TSO standards into the EASA CS-ETSO structure.

In principle, stakeholders agreed to amend Subpart A and add, delete or amend all the ETSOs included in the NPA, with exception of C161a. 34 detailed comments were received from 14 commentators.

This Decision is published simultaneously with the CRD, as allowed by the rulemaking procedure adopted by the Agency's Management Board on 13 March 2012.

This Decision therefore:

- amends CS-ETSO Subpart A (Environmental standards);
- and deletes/replaces/introduces the ETSO summarised in the table below:

Index	No of deleted ETSOs	No of replaced ETSOs	No of newly introduced ETSOs
1 (ETSO identical to the corresponding FAA TSO)	4	13	5
2 (some differences to the corresponding FAA TSO)	2	0	0

The adopted changes are expected to increase safety by aligning the standards to the state of the art and also to improve harmonisation with corresponding FAA standards, therefore, providing a level playing field for competition among manufacturers while facilitating the free movement of aircraft equipment on the global market.

Applicability		Process map	
Affected regulations and decisions:	CS-ETSO (Decision 2003/10/RM of 24 October 2003)	Concept Paper:	No
Affected stakeholders:	Equipment manufacturers	ToR	08/02/2012
Driver/origin:	Level playing field	Rulemaking group:	No
Reference:	CS-European Technical Standard Order (ETSO)	RIA type:	Light
		Technical consultation during NPA drafting:	No
		Publication date of the NPA:	11 Oct 2012
		Duration of NPA consultation:	3 months
		Review group:	No
		Focussed consultation:	No
		Publication date of the CRD:	Simultaneously with this Decision

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## 1. Procedural information

### 1.1. The rule development procedure

The European Aviation Safety Agency (hereinafter referred to as the 'Agency') developed ED Decision 2013/012/R in line with Regulation (EC) No 216/2008<sup>1</sup> (hereinafter referred to as the 'Basic Regulation') and the Rulemaking Procedure<sup>2</sup>.

This rulemaking activity is included in the Agency's Rulemaking Programme for 2011-2014 under RMT.0186 (ETSO.008). The scope and timescale of the task were defined in the related Terms of Reference, Issue 3, of 8 February 2012<sup>3</sup>. (see process map on the title page).

The draft text of this Decision has been developed by the Agency. All interested parties were consulted through NPA 2012-16<sup>4</sup>. 34 comments were received from interested parties, including industry, national aviation authorities and other stakeholders.

The Agency has reviewed the comments received on the NPA. The comments received and the Agency's responses are presented in the Comment-Response Document (CRD) 2012-16<sup>5</sup>.

The final text of this Decision with amendment 8 to CS-ETSO has been developed by the Agency.

The process map on the title page summarises the major milestones of this rulemaking activity.

### 1.2. Structure of the related documents

Chapter 1 contains the procedural information related to this task. Chapter 2 explains the core technical content. The text of the resulting CS-ETSO subpart A and individual ETSOs amended or introduced is annexed to the ED Decision.

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<sup>1</sup> Regulation (EC) No 216/2008 of the European Parliament and the Council of 20 February 2008 on common rules in the field of civil aviation and establishing a European Aviation Safety Agency, and repealing Council Directive 91/670/EEC, Regulation (EC) No 1592/2002 and Directive 2004/36/EC (OJ L 79, 19.3.2008, p. 1), as last amended by Commission Regulation (EU) No 6/2013 of 8 January 2013 (OJ L 4, 9.1.2013, p. 34).

<sup>2</sup> The Agency is bound to follow a structured rulemaking process as required by Article 52(1) of the Basic Regulation. Such process has been adopted by the Agency's Management Board and is referred to as the 'Rulemaking Procedure'. See Management Board Decision concerning the procedure to be applied by the Agency for the issuing of opinions, certification specifications and guidance material (Rulemaking Procedure), EASA MB Decision No 01-2012 of 13 March 2012.

<sup>3</sup> [http://www.easa.europa.eu/rulemaking/docs/tor/etso/ToR%20RMT.0186%20\(ETSO.008\)%20Issue%203.pdf](http://www.easa.europa.eu/rulemaking/docs/tor/etso/ToR%20RMT.0186%20(ETSO.008)%20Issue%203.pdf)

<sup>4</sup> In accordance with Article 52 of the Basic Regulation and Articles 5(3) and 6 of the Rulemaking Procedure.

<sup>5</sup> See: <http://easa.europa.eu/rulemaking/r-archives.php#crd>.

## 2. Explanatory Note

### 2.1. Overview of the issues to be addressed

This Decision:

- (a) amends CS-ETSO, Subpart A, in relation to software (SW) development;
- (b) deletes obsolete ETSOs no longer used by industry;
- (c) modifies a number of ETSOs remaining harmonised with corresponding FAA TSOs; and
- (d) introduces new ETSO specifications that are always technically identical to existing Federal Aviation Administration (FAA) TSO (i.e. no ETSO proposed in Index 2 of CS-ETSO).

### 2.2. Objectives

The overall objectives of the EASA system are defined in Article 2 of the Basic Regulation. This proposal will contribute to the achievement of the overall objectives by addressing the issues outlined in Chapter 2. The specific objectives of the proposal were, therefore, to:

- improve the specifications, driven by the advancement of the state of the art, for a number of aircraft equipment;
- modernise the provisions on avionics to facilitate initial evolution towards SESAR (e.g. VDL Mode 2 and Mode S ATC transponder);
- introduce more stringent or new specifications for safety equipment (e.g. Underwater Locating Devices) in some cases requested by Safety Recommendations issued by the safety investigation authorities.

### 2.3. Outcome of the consultation

The Comment-Response Document (CRD) 2012-16, published simultaneously with this Decision, contains the comments received on NPA 2012-16 (published on 11 October 2012) and the responses provided thereto by the Agency.

In principle stakeholders agreed to amend Subpart A and add, delete or amend all the ETSOs included in the NPA. 34 detailed comments were received from 14 commentators.

In total the Agency accepted (or partially accepted) 23 (almost 68 %) of the 34 received comments.

As a result:

- The text of CS-ETSO Subpart A has been significantly modified;
- The Agency acknowledges that the transition issues from ED-12B to C (software) require attention in the text of AMC 20-115C, but this document is out of scope of the present task, since progressed through RMT.0462;
- Several ETSO have been modified as well;
- The proposal to update ETSO-C161a to C161a A1 is withdrawn by the Agency;
- Update of ETSO-C44 (from 'c' to 'd'), C113 (to 'a') and C161a has been included in the ToR for subsequent amendment of CS-ETSO (RMT.0206);
- The issue of lead-free soldering has been proposed for inclusion in RMT.0561 (regular update of AMC 20).

## 2.4. Summary of the Regulatory Impact Assessment (RIA)

Three options have been identified in the RIA:

No	Identification	Description
0	<b>Do nothing</b>	Do not publish new versions of EASA ETSOs aligned with latest FAA versions.
1	<b>Amend CS-ETSO (with references)</b>	Introduction of new ETSO(s) and transposition of selected TSO specifications into technically similar ETSO(s), published as amendment to CS-ETSO and, wherever possible, referring to applicable standards developed by industry (e.g. EUROCAE, RTCA, SAE, etc.).
2	<b>Amend CS-ETSO (copy and paste)</b>	As 1, but copying and pasting the entire content of the referred industry standards.

The options have been compared using the multi-criteria analysis (MCA) methodology, whose end results were:

Options	0	1	2
	Do nothing	Transpose by reference	Copy and paste
	<b>Weighted score</b>		
<b>Safety</b>	-6	6	6
<b>Social impact</b>	-2	2	2
<b>Environment</b>	0	0	0
<b>Economic impact</b>	-3	3	3
<b>Proportionality</b>	-1	1	1
<b>Regulatory harmonisation</b>	-2	3	-3
<b>TOTAL</b>	<b>-14</b>	<b>15</b>	<b>9</b>

From the table above one can observe that option 0 ('do nothing') shows a significantly negative score, from any perspective (including safety, but except environment for which it is, like all the others, neutral) including safety, as well as for the negative economic and social implications. In fact, it would neither implement safety recommendations, nor align CS-ETSO with the state of the art and with the FAA progress.

Option 2 ('copy and paste') is significantly positive in safety terms (like 1) and also from the social and economic point of view, but it poses a significant legal risk for the Agency, since possibly infringing the Intellectual Property Rights (IPR) of organisations like e.g. Eurocae or RTCA.

Option 1 is the only one positive, or even highly positive, from any perspective (except from the environmental point of view for which it is neutral). It was hence pursued and accepted by stakeholders when commenting the NPA.

## 2.5. Overview of the amendments

See Annex I (Preamble)

### **3. References**

#### **3.1. Related regulations**

Commission Regulation (EU) No 748/2012 of 3 August 2012 laying down implementing rules for the airworthiness and environmental certification of aircraft and related products, parts and appliances, as well as for the certification of design and production organisations, and in particular Subpart K (parts and appliances), O (European Technical Standard Order Authorisation) and Q (identification of products, parts and appliances) in Annex I thereto.

#### **3.2. Affected decisions**

Decision No 2003/10/RM of the Executive Director of the Agency of 24 October 2003 on certification specifications, including airworthiness codes and acceptable means of compliance, for European Technical Standard Orders ('CS-ETSO'). Decision as last amended by Decision No 2010/010/R of the Executive Director of the Agency of 14 December 2010.

#### **3.3. Reference documents**

CS-European Technical Standard Order (ETSO)

FAA Technical Standard Order (TSO)<sup>6</sup>

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<sup>6</sup> FAA TSOs are available at <http://www.airweb.faa.gov>.