



Deviations requests for an ETSO approval for CS-ETSO Applicable to Environmental Testing in general and to Mode S Transponders Consultation Paper

1. Introductory note

The hereby presented deviations requests shall be subject to public consultation, in accordance with EASA Management Board Decision n°7-2004¹ products certification procedure dated 30 March 2004, Article 3 (2.) of which states:

“2. Deviations from the applicable airworthiness codes, environmental protection certification specifications and/or acceptable means of compliance with Part 21, as well important special conditions and equivalent safety findings, shall be submitted to the panel of experts and be subject to a public consultation of at least 3 weeks, except if they have been previously agreed and published in the Official Publication of the Agency. The final decision shall be published in the Official Publication of the Agency.”

2. Deviation CS-ETSO Subpart A 2.1

Use of EUROCAE ED-14E/RTCA DO-160E instead of ED-14D/DO-160D change 3.

Industry Position: ELOS (Equivalent Level of Safety) is provided by use of later revision of the requirement document.

EASA: The newer environmental standard is considered equivalent to the previous version.

3. Deviation ETSO-2C112b#1

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

There is a specific marking requirement in the associated ED-73B document which reads:

1.4.2.2 Transponder Labelling

Each transponder shall be clearly labelled with its actual functional level and its optional capabilities. This shall be the word "level" followed by one digit between 1 and 5 followed by "e" if Extended squitter, "s" if SI code processing is supported and/or "h" if the Hijack Mode is supported.

The label must be clearly visible when the transponder is mounted on the aircraft. In the case of a change of transponder level or capability the label must be changed appropriately.

NOTE: For example, a level 4 transponder with SI capability, Extended squitter capability, and Hijack Mode support, would be labelled "level 4esh".

Deviations requests

Deviate from ED-73B 1.4.2.2 to allow the level indication marking to be done somewhere outside on the unit on a place visible during installation but not visible when installed in a cockpit panel.

¹ Cf. EASA Web: http://www.easa.europa.eu/doc/About_EASA/Manag_Board/2004/mb_decision_0704.pdf

Industry:

The flight crew is not using the information provided on the label. Consequently the location of the label has no safety effect. Long standing Industry practice includes marking ETSO products outside on the unit such that installers can assure only appropriate products are installed.

EASA:

EASA agrees to the position. There is no requirement having the equipment label visible in the cockpit. The transponder in question could be installed in an avionic bay not accessible and consequently not visible during flight. This result in no need to require visible marking when installed in a panel. Typically the equipment marking of all display and control units being panel mounted are not visible when installed. There is a benefit having such requirement for units being installed in an avionic bay. We stay with the requirement having the marking easily visible if holding the unit in hand e.g. during installation or on the bench.

The requirement is ambiguous. The most common interpretation for “when mounted” is that the requirement has to be met after the installation has been finished. It is possible to read the sentence as well in a way that the requirement is valid during installation.

EASA accepts the industry position and will not require a deviation request for this issue based on the ambiguity of the requirement.