



**Deviation request #106 for an ETSO approval for CS-ETSO applicable to  
Air Traffic Control Radar Beacon System/Mode Select (ATCRBS/Mode S) Airborne  
Equipment (ETSO-C112d)  
Consultation Paper**

**1. Introductory note**

The hereby presented deviation requests shall be subject to public consultation, in accordance with EASA Management Board Decision No 7-2004 as amended by EASA Management Board Decision No 12-2007<sup>1</sup> products certification procedure dated 11<sup>th</sup> September 2007, 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 as 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. ETSO-C112d#1 – Air Traffic Control Radar Beacon System/Mode Select  
(ATCRBS/Mode S) Airborne Equipment**

If RTCA/DO-181E is used as an equivalent document for EUROCAE ED-73E to deviate from RTCA/DO-181E Section 2.2.22.h to not interface with FAA TSO-C119a (RTCA/DO-185 compatible) TCAS units.

**Requirement:**

RTCA/DO-181E Section 2.2.22:

Mode S transponder used in conjunction with TCAS shall have the following capabilities:

...

h. The ability to interface with both FAA TSO-C119a (for compatibility with RTCA/DO-185) and RTCA/DO-185A/B compatible units.

**Industry:**

The requirement RTCA/DO-181E Section 2.2.22.h does not have a corresponding EUROCAE ED-73E requirement because the corresponding EUROCAE ED-73E Section 3.27.h specifies “The ability to interface with ACAS (TCAS Version 7 or higher) compatible units.” TCAS Version 7 is defined as “RTCA DO-185A compatible” in EUROCAE ED-73E Section 5.5.8.36.1. Therefore, EUROCAE ED-73E does not require ACAS compatible transponders to interface with TSO-C119a (RTCA/DO-185 compatible) units.

ELOS is provided by documenting this limitation in ability to interface with TCAS in the Installation Manual. This limited ability to interface is an installation issue and not an issue during operation.

**EASA:**

We accept the proposed deviation.

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