



**Deviations request #79 for an ETSO approval for CS-ETSO applicable to  
Airborne Navigation Sensors Using the Global Positioning System Augmented by  
the Satellite Based Augmentation System (ETSO-C145c)  
Consultation Paper**

**1. Introductory note**

The hereby presented deviation request 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. September 2007, Article 3 (2.) of which states:

“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-C145c#1 – Airborne Navigation Sensors Using the Global Positioning System Augmented by the Satellite Based Augmentation System**

Deviate from RTCA/DO-229D Section 2.1.1.10 and use GPS antennas that meet specific industry minimum performance specifications for a dedicated receiver instead of DO-301 qualified antennas.

**Industry:**

RTCA/DO-229D is quite explicit in defining the interface and characteristic for the antenna used to receive the signals but is specifying the overall system performance as well. The selected approach helps certifying antenna and receiver separately as they may be manufactured by different organizations. On the other hand this prevents the usage of a different set of requirement allocations between the antenna and the receiver which can be used to reach the defined functionality for the system. Consequently we ask for the deviation to use a dedicated specification for the antenna to be used in conjunction with a specific receiver. Equivalent level of safety is provided by the fact that the combination of antenna and receiver will be assessed by us against the system performance requirements and a list of possible antennas, which may be combined with the receiver, will be provided in the installation manual as an installation limitation.

**EASA:**

We accept the deviation.

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