

# Deviation Request C112d#8 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](#) products certification procedure dated 11th 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 Deviation Requests

#### 2.1 ETSO-C112d#8 Air Traffic Control Radar Beacon System/Mode Select (ATCRBS/Mode S) Airborne Equipment

##### 2.1.1 Summary of Deviation

Deviates from ED-73E by not performing explosion test for these equipment limited to installation in non-explosive atmosphere.

##### 2.1.2 Original Requirement

EUROCAE ED-73E

#### “4.2 ENVIRONMENTAL TEST CONDITIONS

**Table 4.1 lists all of the environmental conditions and test procedures (hereafter referred to as environmental procedures) that are documented in the applicable EUROCAE ED-14G or subsequent version. It allocates to each environmental conditions, the group(s) of functional tests to be performed. All of the procedures in a given group are carried out in conjunction with the same set of transponder performance tests.**

Table 4.2 lists the functional transponder tests to be run for the different groups defined in Table 4.1. The tests procedures are defined in §5.4. Alleviations of the test procedures required under environmental conditions are indicated as necessary, in each test procedure.

Table 4.1: Environmental Test Groups

	ENVIRONMENTAL CONDITIONS	ED-14G CHAPTERS/SECTIONS	ED-73E
(...)			
9	Explosion Proofness	§9.0	Group 6, see note below
(...)			

**NOTE: Tests in Group 6 determine the effects of the transponder on other equipment (mounts, compass needles, explosive gasses, and other RF equipment) and therefore do not involve the transponder performance requirements of this document.”**

### 2.1.3 Industry

In table 4.1, what EUROCAE ED-73E is requiring does not formally permit not to pass the section 9 – Explosion proofness of the applicable ED-14. However, this requirement has no added safety for articles installed in location where the atmosphere is not explosive.

### 2.1.4 Equivalent Level of Safety

The Equivalent of Safety is provided by the limitation not to install the article in an explosive atmosphere and the DDP quoting X for ED-14 section 9.

### 2.1.5 EASA position

We accept the deviation.