

Deviation Request ETSO-C115c#3 for an ETSO approval for CS-ETSO applicable to Airborne Area Navigation Equipment Flight Management Systems (FMS) Using Multi-Sensor Inputs (ETSO-C115c)

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 ETSO-C115c#3 Airborne Area Navigation Equipment Flight Management Systems (FMS) Using Multi-Sensor Inputs

2.1 Summary of Deviation

Deviates from RTCA DO-283A sections 2.2.2.12.2 by not supporting the RNP RNAV type coded in the navigation data base for the area.

2.2 Original Requirement

RTCA DO-283A

2.2.2.12.2 RNP-(x) RNAV Type Associated with a Flight Plan Leg:

The equipment shall assign the RNP-(x) RNAV type of a leg in the following order of precedence:

- a. use the pilot entered RNP value, if defined*
- b. use the RNP RNAV type coded in the navigation database for the current leg or route, if defined.*
- c. use the RNP RNAV type coded in the navigation data base for the area, if defined.*

2.3 Industry

The applicant SBAS FMS is compliant with paragraph 2.2.12.2 a. and b For 2.2.12.2 c, the RNP RNAV type for an area is provisioned in the ARINC 424 specification, but is not currently defined by the ARINC 424 standard, and therefore cannot be implemented. If a. and b. do not apply, the FMS uses phase-of-flight RNP. The applicant intends to implement this requirement once ARINC defines the standard.

2.4 Equivalent Level of Safety

If the aircraft is in an area that has a lower RNP than the RNP selected by the FMS, the crew can enter manual RNP. Instructions to this effect were incorporated in the FMS Operator's Manual.

2.5 EASA position

We accept the deviation, but encourage applicants to implement this function once the ARINC 424 standard has been defined to support future database content and expected aircraft behaviour.