

ETSO-C161b

ED Decision 2022/018/R

GROUND-BASED AUGMENTATION SYSTEM POSITIONING AND NAVIGATION EQUIPMENT

1 Applicability

This ETSO provides the requirements that Ground-Based Augmentation System Positioning and Navigation Equipment that is designed and manufactured on or after the date of this ETSO must meet in order to be identified with the applicable ETSO marking.

2 Procedures

2.1 General

The applicable procedures are detailed in CS-ETSO, [Subpart A](#).

2.2 Specific

None.

3 Technical Conditions

3.1 Basic

3.1.1 Minimum Performance Standard

The applicable standard is that provided in (RTCA) document RTCA/DO-253D Change 1, Section 2, for GBAS airborne equipment class (GAEC) C to support GBAS Approach Service Type (GAST) C, or GAEC D to support both GAST C and GAST D approach service types. This ETSO also applies to equipment that implements the optional GBAS positioning service as defined in RTCA/DO-253D Change 1, Section 2.3.

The standards of this ETSO apply to equipment intended to output deviations relative to a precision approach path using GBAS, and to provide position information to a navigation management unit that outputs deviation commands referenced to a desired flight path. The positioning and navigation functions are defined in section 2.3 of RTCA/DO-253D Change 1. In accordance with section 2.1 of RTCA/DO-253D Change 1, equipment obtaining this ETSOA must also comply with the position, velocity and time (PVT) output requirements of either, ETSO-C145e, ETSO-C146e or ETSO-C196b.

3.1.2 Environmental Standard

See CS-ETSO [Subpart A](#), paragraph 2.1. The required performance is defined in RTCA/DO253D, Change 1, section 2.4.

3.1.3 Software

See CS-ETSO, [Subpart A](#), paragraph 2.2.

3.1.4 - Airborne Electronic Hardware

See CS-ETSO, [Subpart A](#), paragraph 2.3.

3.2 Specific

3.2.1 Failure Condition Classification

See CS-ETSO, [Subpart A](#), paragraph 2.4.

4 Marking

4.1 General

See CS-ETSO, [Subpart A](#), paragraph 1.2.

4.2 Specific

None.

5 Availability of Referenced Documents

See CS-ETSO, [Subpart A](#), paragraph 3

[Amdt ETSO/3]

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