ETSO-C196a
Date: 05.07.2012

European Aviation Safety Agency

European Technical Standard Order

Subject: Airborne Supplemental Navigation Sensors for Global Positioning System Equipment Using Aircraft-Based Augmentation

1 - Applicability

This ETSO gives the requirements which Airborne Supplemental Navigation Sensors for Global Positioning System Equipment Using Aircraft-Based Augmentation that are manufactured on or after the date of this ETSO must meet in order to be identified with the applicable ETSO marking.

This ETSO cancels ETSO-C129a *Airborne Supplemental Navigation Equipment Using Global Positioning System (GPS)*

2 - Procedures

2.1 - General

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

Standards set forth in the Radio Technical Commission for Aeronautics (RTCA) document DO-316, Minimum Operational Performance Standards (MOPS) for Global Positioning System/Aircraft Based Augmentation System Airborne Equipment, dated 14/04/2009, Section 2.

3.1.2 - Environmental Standard

See CS-ETSO Subpart A paragraph 2.1.

Test to EUROCAE ED-14( ) section9 and 26 are considered optional. Test to section 10, 11, 12, 13, and 14 are required only, when the component is installed on the outside of the aircraft, like the antenna.

3.1.3 – Computer Software

See CS-ETSO Subpart A paragraph 2.2.

3.1.4 - Electronic Hardware Qualification

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.

Failure of the function defined in paragraph 3.1.1 of this ETSO has been determined to be a major failure condition for malfunction of oceanic/remote, en route and terminal navigation and lateral navigation (LNAV) approaches.

Failure of the function defined in paragraph 3.1.1 of this ETSO has been determined to be a minor failure condition for loss of navigation of oceanic/remote, en route and terminal navigation and lateral navigation (LNAV) approaches.

3.2.2

Barometric-aided Fault Detection and Exclusion (FDE). If the equipment uses barometric-aiding to enhance FDE availability, then the equipment must meet the requirements in RTCA/DO-316, Appendix G.

4 - Marking

4.1 - General

Marking as detailed in CS-ETSO Subpart A paragraph 1.2.

4.2 - Specific

None.

5 - Availability of Referenced Document

See CS-ETSO Subpart A paragraph 3.