

# European Aviation Safety Agency

## European Technical Standard Order (ETSO)

SUBJECT: ELECTRONIC MAP DISPLAY EQUIPMENT FOR GRAPHICAL DEPICTION OF AIRCRAFT POSITION

### 1 – Applicability

This ETSO gives the requirements which new models of Electronic Map Display Equipment for Graphical Depiction of Aircraft Position, that are 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

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

New models of Electronic Map Displays that are to be so identified and that are manufactured on or after the effective date of this ETSO must meet the standards set forth for moving map equipment in Section 2 of RTCA document DO-257A, "Minimum Operational Performance Standards for the Depiction of Navigational Information on Electronic Maps," dated June, 25, 2003.

Electronic Map Displays for use in flight must meet the MPS in Sections 2.1 and 2.2 of DO-257A.

Electronic Map Displays for use on the airport surface must meet the MPS in Sections 2.1, 2.2, and 2.3 of DO-257A, and Electronic Map Displays including Vertical Situation Displays (VSD) for use in facilitating pilot's awareness of the aircraft's vertical flight path must meet the MPS in Sections 2.1, 2.2, and 2.4 of DO-257A.

##### 3.1.2 - Environmental Standard

See CS-ETSO Subpart A paragraph 2.1.

##### 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 functions defined in paragraph 3.1.1 of this ETSO for Electronic Map Displays used in flight and VSD equipment (airborne applications) have been determined to be a major failure condition for malfunctions causing the display of misleading information.

Loss of function for Electronic Map Displays used in flight and VSD equipment (airborne applications) have been determined to be a minor failure condition.

Failure of the function defined in paragraph 3.1.1 of this ETSO for Electronic Map Displays used on the airport surface (ground applications) have been determined to be a minor failure condition for malfunctions causing the display of misleading information.

Loss of function for Electronic Map Displays used on the airport surface (ground applications) is determined to be a no safety effect failure condition.

### **4 - Marking**

#### 4.1 - General

Marking is 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