

**SUBPART A - GENERAL****1. APPLICABILITY**

- 1.1 Requirements for the issue of European Technical Standard Order (ETSO) Authorisations are found in Part 21 Section A Subpart O.
- 1.2 Marking requirements for the issue of European Technical Standard Order Authorisations are found in Part 21 Section A Subpart Q.

**2. ENVIRONMENTAL AND SOFTWARE STANDARDS TO MEET TECHNICAL CONDITIONS**

## 2.1 Environmental standards:

Unless otherwise stated in the paragraph 3.1.2 of the specific ETSO, the applicable environmental standards are contained in EUROCAE/RTCA document ED-14D/DO-160D, „Environmental Conditions and Test Procedures for Airborne Equipment“, change 3 dated December 2002.

## 2.2 Software standards

If the equipment design implementation includes a digital computer, the computer software must be verified and validated in an acceptable manner.

Unless stated otherwise in paragraph 3.1.3 of the specific ETSO, one acceptable means of compliance for the verification and validation of the computer software is outlined in EUROCAE/RTCA document ED-12B/DO-178B, „Software considerations in Airborne Systems and Equipment Certification“, dated December 1992.

For those applicants who elect to use EUROCAE/RTCA document ED-12B/DO-178B to demonstrate compliance for the verification and validation of the computer software, the following requirements must be met:

- (i) This document defines five levels of software:  
Level A, Level B, Level C, Level D, and Level E. The applicant must declare the level (or levels) to which the computer software has been verified and validated.
- (ii) If the equipment incorporates more than one software level, appropriate partitioning of different software level is required.

**3. ADDITIONAL INFORMATION**

- 3.1 In some ETSO's, reference is made to an associated FAA standard and in these cases the FAA standard is attached to the ETSO. Where in the associated “FAA” standard, reference is made to “FAA” or “FAR”, it should be substituted by the equivalent reference, “Agency” or “Part/CS”.
- 3.2 The following addresses are provided below:

- EUROCAE documents may be purchased from:  
European Organisation for Civil Aviation Equipment  
17, rue Hamelin 75116 PARIS Cedex 16 - FRANCE  
(web site : [www.eurocae.org](http://www.eurocae.org))

- RTCA documents may be purchased from:  
Radio Technical Commission for Aeronautics, Inc.  
1828 L Street NW, Suite 805-Washington DC 20036-USA  
(web site : [www.rtca.org](http://www.rtca.org))

- SAE documents may be purchased from:  
Society of Automotive Engineers, Inc.  
400 Commonwealth Drive - WARRENDALE, PA 15096-001 – USA  
(web site : [www.sae.org](http://www.sae.org))
  
- NAS specifications may be obtained from:  
Aerospace Industries Association (AIA)  
1327 Jones Drive-Ann Arbor-MI 48105-USA  
(web site : [www.techstreet.com](http://www.techstreet.com))
  
- FAA Standards may be purchased from:  
Superintendent of Documents, Government Printing Office  
732N Capitol Street NW-Washington DC 20401-USA  
(web site : [www.gpoaccess.gov](http://www.gpoaccess.gov))
  
- MIL Specifications may be obtained from:  
DODSSP, Standardization Documents Order Desk  
Building 4D, 700 Robbins Avenue - PHILADELPHIA, PA 19111-5094 – USA  
(web site : <http://dodssp.daps.mil/>)
  
- ASTM documents may be purchased from:  
American Society for Testing and Materials, ASTM International,  
100 Barr Harbor Drive, PO Box C700, West Conshohocken, Pennsylvania 19428-2959, USA.  
(web site: [www.astm.org](http://www.astm.org))