



U.S. Department  
of Transportation  
**Federal Aviation  
Administration**

# Advisory Circular

*Obsolete*

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Subject: Radio Technical Commission for  
Aeronautics (RTCA) Document DO-178

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Change:

1. PURPOSE. This Advisory Circular (AC) calls attention to the Radio Technical Commission for Aeronautics (RTCA) Document DO-178, "Software Considerations in Airborne Systems and Equipment Certification." It discusses how the document may be applied with FAA Technical Standard Order (TSO), Type Certification (TC), and Supplemental Type Certification (STC) authorizations.
2. RELATED FAR SECTIONS. FAR Parts 21, 23, 25, 27, 29, and 33.
3. BACKGROUND. RTCA Document DO-178 was issued November 1981 to establish software considerations for developers, installers, and users when the aircraft equipment design is implemented using microcomputer techniques. It is expected that future avionics designs will make extensive use of this technology. The RTCA document outlines verification, validation, documentation, and maintenance procedures to be used in microcomputer systems.
4. USE OF DO-178 PROCEDURES. An applicant for a TSO, TC or STC authorization for any electronic equipment or system employing digital computer technology may use the considerations outlined in RTCA Document DO-178 as a means, but not the only means, to secure FAA approval of the digital computer software. The FAA may publish Advisory Circulars outlining "criticality categorization" for specific FAR's. Those AC's may differ from and will take precedence over application of DO-178, § 5.1.
5. WHERE TO OBTAIN COPIES OF RTCA DOCUMENT DO-178. Copies of DO-178 may be obtained from:

RTCA Secretariat  
Suite 655  
1717 H Street, NW.  
Washington, D.C. 20006

M. C. Beard  
Director of Airworthiness