



<b>FAS Topic Paper (FTP)</b>		
<b>TITLE</b>	<b>REVISION</b>	<b>REVISION DATE</b>
FTP1028 Are the activities described in the DO-178C/ED-12C document set mandatory?	3	03-Dec-2020
<b>ABSTRACT/PURPOSE:</b>		
<p>This FTP addresses the question whether the “Activities” in the DO-178C/ED-12C document set are mandatory and the means of compliance with the objectives. The “Activities” defined in DO-178C/ED-12C and DO-278A/ED-109A were never intended to be the sole means of meeting the objectives and were never intended to be mandated. A statement was included in Subsection 1.4 to explain that the applicant could propose alternate Activities, such as those that comprise their own software life cycle processes. However, this text may not have been presented clearly enough to avoid the misunderstanding.</p>		
<b>RELATED DO/ED DOCUMENTS:</b>		
<p><input checked="" type="checkbox"/> DO-178C/ED-12C: SW Airborne Sys &amp; Equip <input checked="" type="checkbox"/> DO-278A/ED-109A: SW (CNS/ATM) Systems <input checked="" type="checkbox"/> DO-248C/ED-94C: Supporting Information <input checked="" type="checkbox"/> DO-330/ED-215: Software Tool Qualification Considerations <input checked="" type="checkbox"/> DO-331/ED-218: Model Based Development &amp; Verification Supplement <input checked="" type="checkbox"/> DO-332/ED-217: OO Technology and Related Techniques Supplement <input checked="" type="checkbox"/> DO-333/ED-216: Formal Methods Supplement <input type="checkbox"/> Other</p>		
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### **FAS Team Definition and Goals:**

The FAS user group monitors and exchanges information on the application of the following “software document suite” that was developed by joint RTCA/EUROCAE committee SC-205/WG-71:

- DO-178C/ED-12C - Software Considerations in Airborne Systems and Equipment Certification
- DO-278A/ED-109A - Software Integrity Assurance Considerations for Communication, Navigation, Surveillance and Air Traffic Management (CNS/ATM) Systems
- DO-248C/ED-94C - Supporting Information
- DO-330/ED-215 - Software Tool Qualification Considerations
- DO-331/ ED-218 - Model Based Development & Verification Supplement
- DO-332/ED-217 - Object Oriented Technology and Related Techniques Supplement
- DO-333/ ED-216 - Formal Methods Supplement

The goals of the FAS user group are as follows:

1. To share lessons learned in the use of the RTCA/EUROCAE “software document suite” and to encourage good practices and promote the effective use of RTCA’s and EUROCAE’s publications.
2. To develop FAS Topics Papers (FTP) relative to RTCA’s and EUROCAE’s publications or other related aeronautical software industry topics. These FTPs may include clarification to the “software document suite” or a discussion on a new topic.
3. To identify and record any issues or errata showing the need for clarifications or the need for modifications to the “software document suite”.

The FAS user group does not have the authority to change the content of any approved RTCA/EUROCAE documents. Any publications of the FAS user group may be taken into consideration by a future RTCA/EUROCAE working group.

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### **Abstract / Purpose of the FAS Topic Paper:**

This FTP addresses the question whether the “Activities” in the DO-178C/ED-12C document set are mandatory and the means of compliance with the objectives. The “Activities” defined in DO-178C/ED-12C and DO-278A/ED-109A were never intended to be the sole means of meeting the objectives and were never intended to be mandated. A statement was included in Subsection 1.4 to explain that the applicant could propose alternate Activities, such as those that comprise their own software life cycle processes. However, this text may not have been presented clearly enough to avoid the misunderstanding.

### **FTP Discussion:**

#### Question from Industry:

Are the “activities” discussed in the DO-178C/ED-12C document set and summarized in the Annex Tables mandatory?

#### Response from FAS:

No, the documented activities are not mandatory. It is necessary for the applicant to plan a set of activities that satisfy the applicable objectives of the DO-178C/ED-12C document set. This is explained in DO-178C/ED-12C Section 1.4.d.

The activities discussed in the documents were never intended as the sole means of satisfying the objectives; instead, the activities are simply one means that may be suitable to meet those objectives. It is the responsibility of the applicant to plan and conduct the proposed activities that will be used to satisfy the objectives and, if necessary, to obtain agreement of those activities with the certification authority.