



FAS Topic Paper (FTP)		
TITLE	REVISION	REVISION DATE
FTP1002 DO-331/ED-218 Annex Tables MB.A-3/MB.C-3 and MB.A-4/MB.C-4 Item Clarification	7	16Aug2018
ABSTRACT/PURPOSE:		
This FTP addresses the ambiguity that currently exists in DO-331/ED-218 Annex Tables MB.A-3 Item #2, MB.A-4 Item #1, MB.C-3 Item #2, and MB.C-4 Item #1. The current wording can be misinterpreted and hence oversimplify the use of simulation.		
RELATED DO/ED DOCUMENTS:		
<input type="checkbox"/> DO-178C/ED-12C: SW Airborne Sys & Equip <input type="checkbox"/> DO-278A/ED-109A:SW (CNS/ATM) Systems <input type="checkbox"/> DO-248C/ED-94C: Supporting Information <input type="checkbox"/> DO-330/ED-215: Software Tool Qualification Considerations <input checked="" type="checkbox"/> DO-331/ED-218: Model Based Development & Verification Supplement <input type="checkbox"/> DO-332/ED-217: OO Technology and Related Techniques Supplement <input type="checkbox"/> DO-333/ED-216: Formal Methods Supplement <input type="checkbox"/> Other		
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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’s) relative to RTCA’s and EUROCAE’s publications or other related aeronautical software industry topics. These FTP’s 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 ambiguity that currently exists in DO-331/ED-218 Annex Tables MB.A-3 Item #2, MB.A-4 Item #1, MB.C-3 Item #2, and MB.C-4 Item #1. The current wording can be misinterpreted and hence oversimplify the use of simulation.

FTP Discussion:

The current wording in the “Items” following DO-331/ED-218 Annex Tables MB.A-3, MB.A-4, MB.C-3, and MB.C-4 could be misinterpreted when using simulation as a means of compliance. The intent of the “Item” notes is that referenced objectives are **additional** objectives to be met and not a replacement for the original objectives which contain the “Item” notes.

As an example, the “Item 2” note in Annex Table MB.A-3 does not mean that if simulation cases, procedures and results are reviewed, then Annex Table MB.A-3 objective 1 does not need to be satisfied. Rather, if simulation is used to satisfy Annex Table MB.A-3 objective 1, review of the simulation cases, procedures and results should be performed and those reviews will need to ensure the simulation is fulfilling the original Annex Table MB.A-3 objective 1.

Specifically, the following applies when simulation is used as a means of compliance:

- For Annex Table MB.A-3 Item 2, objectives MB.8, MB.9, and MB.10 should be met in addition to objectives 1, 2, 4, and 7.
- For Annex Table MB.A-4 Item 1, objectives MB.14, MB.15, and MB.16 should be met in addition to objectives 1, 2, 4, 7, 8, 9, and 11.
- For Annex Table MB.C-3 Item 2, objectives MB.8, MB.9, and MB.10 should be met in addition to objectives 1, 2, 4, and 7.
- For Annex Table MB.C-4 Item 1, objectives MB.14, MB.15, and MB.16 should be met in addition to objectives 1, 2, 4, 7, 8, 9, and 11.