

## DOCUMENT COMMENT LOG

<b>Originating Office:</b> AIR-130	<b>Document Description:</b> Draft TSO-C123c, Cockpit Voice Recorder Equipment	<b>Project Lead:</b> Veronica Gardner, AIR-130, (202) 385-4690	<b>Reviewing Office:</b>	<b>Date of Review:</b>
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Company & Group	Page & Paragraph	Comment	Rationale for Comment	Recommendation	Disposition
L. Taylor ACE-111	Page 2 Para 3.a	ED-112A has Annex with maintenance practices.	Clarification	Add Annex II-B to list of exceptions.	Comment Not Accepted.  There is no Annex II-B for CVR. This annex only needs to be on the FDR exclusion list, not the CVR exclusion list.
L. Lyne ACE-114	Page 2 Par.3.e.	“CVR” is incorrectly referred to as “CIR”.	Use of correct acronyms.	Change “CIR” to “CVR”.	Comment Accepted
L. Taylor ACE-111	Page 5 Para 5.f	Refers to 21.608, Quality Manual. 21.607 is Quality System. “The quality system description required...”	Not sure what is intended and it is a sentence fragment.	Change to “The quality manual per 14 CFR, Section 21.608 requires functional test specifications and should ensure that you will detect...”	Comment Not Accepted.  Language per Order 8150.1C
ACE-117C, Jonathan Kim, (847) 294-7011	Page 2, paragraph e	Reference statement “ED-112 requires the use of ED-14G or RTCA DO-160G” is incorrect.	The Document ED-112 does not specify ED-14G or RTCA DO-160G. However it calls out ED-14D/DO-160D.	It should have been “ED-112A” rather than “ED-112”.  The correct Statement as follows; “ED-112A requires the use of ED-14G or RTCA DO-160G”	Comment Accepted.

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Boston ACO & Tony Pigott	Page 3 & paragraph 3.g.	Revision is missing 'Electronic Hardware Qualification' paragraph from current TSO.	Electronic Hardware Qualification information is needed.	Incorporate existing Electronic Hardware Qualification paragraph into revision.	<p>Comment Not Accepted.</p> <p>Section 3.b of TSO-C123c has a minor failure condition classification.</p> <p>The paragraph below is specified by the current TSO boilerplate for AEH.</p> <p>“use this paragraph if the condition classification (defined in paragraph 3.b of this TSO) is major, hazardous or catastrophic.”</p>
ANM-100D	P. 2 ¶ 3. e	Acronym used but not spelled out.	<ol style="list-style-type: none"> <li>1. There is no list/table of acronyms in this document.</li> <li>2. The acronym CIR is not used or spelled out elsewhere in this document.</li> </ol>	<p>Spell out CIR if that's the desired acronym.</p> <p>Change CIR to CVR if CVR is the desired acronym.</p>	Comment Accepted.
ANM-100D	P. 3 ¶ 3. g	Acronym used but not spelled out.	<ol style="list-style-type: none"> <li>1. The document is available to a wide audience, not all of which are familiar with terms used in the agency on a daily basis.</li> <li>2. Acronyms should be spelled out</li> </ol>	<p><b>Replace</b> “ ... 14 CFR § 21.618” <b>with</b> “Title 14 of the Code of Federal Regulations Part 21.618 (14 CFR § 21.618).”</p>	<p>Comment Not Accepted.</p> <p>Language per Order 8150.1C</p>

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			the first time they are used.		
ANM-100D	P. 6 ¶ 8. c	Wrong URL being used.	<ol style="list-style-type: none"> <li>1. The URL (<a href="http://www.access.gpo.gov">www.access.gpo.gov</a>) no longer exists &amp; is redirecting visitors to another URL (<a href="http://www.gpo.gov">www.gpo.gov</a>).</li> <li>2. The instructions are not valid for the redirected URL (<a href="http://www.gpo.gov">www.gpo.gov</a>).</li> <li>3. P. 7 ¶ 8. a. b. d &amp; e do not provide navigation on the referenced web pages.</li> </ol>	<ol style="list-style-type: none"> <li>1. <b>Replace</b> “You can also order copies online at <a href="http://www.access.gpo.gov">www.access.gpo.gov</a>” <b>with</b> “You can also order copies online from <a href="http://www.bookstore.gpo.gov">www.bookstore.gpo.gov</a>.”</li> <li>2. Delete the last two sentences (page navigation).</li> <li>3. Alternately, delete this entire paragraph and modify the current ¶ 8. d to read “You can find a current list of technical standard orders, advisory circulars, and code of federal regulations on the FAA Internet website Regulatory and Guidance Library at <a href="http://rgl.faa.gov/">http://rgl.faa.gov/</a>.”</li> </ol>	<p>Comment Not Accepted.</p> <p>Language per Order 8150.1C</p>

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ASW-150	Section 3.1.5.1b Safety of Draft ED-112	(1) Section 3-1.5.1.b Safety of Draft ED-112, calls for the overall quantitative probability (per flight hour) of the failure event “non commanded deployment” shall be <math>10^{-7}</math> which addresses hardware and software. This failure probability appears to contradict with the Draft TSO-C123c, Section 3.c and 3.f, which calls for hardware and software design to meet at least a minor failure condition. With such a contradiction, we can’t approve the draft TSO. Someone must resolve failure condition classification. This needs to be resolved for all aircraft types (rotorcraft, small commuter and transport.)	Data appears to contradict Draft TSO-C123c, therefore we cannot approve the Draft TSO	Should be resolved for all aircraft types	<p><b>Comment Partially Accepted.</b></p> <p>This section will be added to the list of exceptions in section 3.a of TSO-C123c.</p> <p>Note: Section 3-1.5.1.b “Safety” of Draft ED-112 is an aircraft installation concern and should be addressed by installation requirements.</p>
ASW-150	Section 2-5.3.9 Aircraft Electrical Power Source of Draft ED-	(2) Section 2-5.3.9 Aircraft Electrical Power Source of Draft ED-112, if the Draft TSO is correct and hardware/ software is developed as a minor failure condition, then Section 2-	Section 2-5.3.9 would create a design constraint that is normally not required for minor failures.	Should be resolved for all aircraft types	<p><b>Comment Partially Accepted.</b></p> <p>This section will be added to the list of exceptions in section 3.a of TSO-C123c.</p>

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	112	5.3.9 would create a design constraint that is normally not required for minor failures. With such a contradiction, we can't approve the draft TSO. Someone must resolve failure condition classification. This needs to be resolved for all aircraft types (rotorcraft, small commuter and transport).			Note: This TSO does not address installation of an article.
ASW-150	Page 2 § 3.e. at the end of the last sentence, "provided the standard is appropriate for the CIR"	What is CIR	Self Explanatory	Please spell out the term	Comment Accepted.  CIR changed to CVR. The CVR acronym is spelled out the first time used on Page 1 paragraph 1.