

## DO-144A FRAC Draft, June 2008 Consolidated Comment Matrix

**\*Importance:**

Non-Concur (N)

Comment/problem of such a serious nature that publication of this document cannot occur.

Critical (C):

Comments of a serious nature.

Substantive (S):

Comments of substantial merit which are important, but not critical.

Editorial (E):

Comments that address items such as typographical, format or other grammatical errors.

Return your forms to RTCA electronically to Gary Furr (E) [gary.ctr.furr@faa.gov](mailto:gary.ctr.furr@faa.gov) and cc: Hal Moses (E) [hmoses@rtca.org](mailto:hmoses@rtca.org) no later than 4:30 p.m. EDT, June 13, 2008.

No.	Reviewer Name	Paragraph	*N C S E	Comment / Rationale	Proposed Resolution(s)
1	R. Jennings FAA AIR-130	1.4	S	Make reference to § 2.2.3.2.1 so reader has more complete picture of Class A equipment.	Suggest adding after current 1 <sup>st</sup> sentence: “Additional information on Class A equipment is contained in § 2.2.3.2.1. <b>SC-209:</b>
2	R. Jennings FAA AIR-130	1.4	S	Make reference to § 2.2.3.2.2 so reader has more complete picture of Class B equipment.	Suggest adding after current 2 <sup>nd</sup> sentence: “Additional information on Class B equipment is contained in § 2.2.3.2.2. <b>SC-209:</b>
3	R. Jennings FAA AIR-130	2.1.5	S	Add additional sentences to “Operation of Controls” to make emphasis on human factors similar to the change we made in § 2.1.5 of DO-181D. Although not as critical as Transport Aircraft transponders, ...still a concern.	Suggest adding the following: <i>“In addition, the operation of controls, intended for use during flight, should be designed and evaluated to ensure that they are logical and tolerant to human error. In particular, where transponder functions are integrated with other system controls (e.g., ADS-B, etc.), the equipment manufacturer should ensure that unintentional transponder mode switching (i.e., an operational state to “STANDBY” or “OFF”) is minimized.”</i> <b>SC-209:</b>
4	R. Jennings FAA AIR-130	2.2.3.2	S	Modify Title to better describe what’s in the subparagraphs	Suggest changing to “Transponder <b>Class and Power Output</b> ” <b>SC-209:</b>

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5	Nolan Van Foeken Garmin	2.2.5.3	S	<p>The text in DO-144A, §2.2.5.3 reads that the 99 percent reply efficiency should be for all amplitudes (including MTL to MTL +3). The following excerpt from TSO C74c shows that the highlighted text is missing from the draft of DO-144A.</p> <p><i>c. Side-lobe Suppression.</i> The transponder must be suppressed for a period of 35 ±10 microseconds following receipt of a pulse pair of proper spacing and suppression action must be capable of being reinitiated for the full duration within 2 microseconds after the end of any suppression period. The transponder must be suppressed with a 99 percent efficiency over a received signal amplitude range between 3 db above minimum triggering level and 50 db above that level and upon receipt of properly spaced interrogations when the received amplitude of P2 is equal to or in excess of the received amplitude of P1 and spaced 2.0 ±0.15 microsecond from P3.</p>	<p>Suggest that the beginning text of §2.2.5.3 be replaced with the following in order to account for the missing text from TSO C74c:</p> <p>“Upon receipt of an interrogation complying with the interrogation modes defined in §2.1.10.3, selected manually or automatically, the transponder <b>shall</b> be suppressed with a 99 percent efficiency over a received signal amplitude range between 3 db above minimum triggering level and 50 db above that level when the received amplitude of P2 is equal to or in excess of the received amplitude of P1 and spaced 2 ±0.15 microseconds.”</p> <p><b>SC-209:</b></p>
6	R. Jennings FAA AIR-130	2.2.10.1, Table 2-4	S	Remove words to make consistent with § 2.2.13.1.2.b. of DO-181D.	Remove the words “ <b>(most significant)</b> ” under “First” under the column titled “Digit”. <b>SC-209:</b>
7	R. Jennings FAA AIR-130	3.3.3	E	Missing units	Add “MHz” after 1090 ±3. <b>SC-209:</b> Corrected

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8	R. Jennings FAA AIR-130	Membership	E	Add additional name....	Suggest including "Terry Pearsall – FAA" to list of contributors. Don't know if he was able to attend any of our meetings..but he was helpful on telecons...at least for me.. (just a suggestion.) <b>SC-209:</b> Added
				<b>End of Comments</b>	