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Change 1

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RTCA/DO-307

Aircraft Design and Certification for Portable Electronic Device (PED) Tolerance

RTCA Paper No. 007-09/PMC-697

December 16, 2008 ©RTCA 2008

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The purpose of Change 1, is to provide the most current post-publication update(s) for DO-307, *Aircraft Design and Certification for Portable Electronic Device (PED) Tolerance*. These changes align the analyses and conclusions of this document with those of DO-294C *Guidance on Allowing Transmitting Portable Electronic Devices (T PEDs) on Aircraft*

Summary of Changes

Change 1 to DO-307 is summarized as follows:

Description of change	Affected paragraphs, tables, and figures
Pen and Ink Change: Add clarification to document background Section 2.	☐ Section 2, Background, Page 3, Add the words "in detail" to the last sentence such that it reads: "Therefore, the wired aspect of PED emissions is not addressed in detail in this document."
Pen and Ink Change: Add clarification to document background Section 2.	☐ Section 2, Background, Page 4, Add the following new paragraph before the next-to-the-last paragraph of Section 2: "A comprehensive discussion of PED and T-PED failure modes and potential impacts can be found in RTCA/DO-294 Chapter 3 and Appendix 3. DO-294 concludes that, while failures contain some risk of interference, the risk is low for spurious emissions resulting in front-door coupling. Consequently, a separate consideration of PED failure modes is not considered necessary."
Pen and Ink Change: Clarify the second paragraph of Section 2.2.2 "Front Door Coupling of Intentional Radiated Emissions (IRA)" to address potential changes in frequency usage.	☐ Replace the second paragraph of Section 2.2.2 on page 8 with the following: "Therefore, T-PEDs available in late 2008 do not intentionally transmit in the frequency bands currently used for aircraft radio communication, navigation and surveillance. As aircraft receivers change to incorporate T-PED operational frequencies, this situation will change. The aircraft communication, navigation and surveillance radio receivers are protected against interference for transmitters outside their operational frequency band, as illustrated in Figure 2 3. The separation of operational frequencies, use of Minimum Operational Performance Standards (MOPS) that provide out-of-band interference protection for aviation receivers, and the observation that IRA IPL tends to be higher than NIRA IPL, all combine to minimize impact of IRA. Therefore, the potential for front-door interference from intentional radiated emissions to the antenna is negligible, and does not need to be separately addressed for ensuring aircraft PED tolerance."

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