

RTCA Development of a New Flammability Test for Electronic Boxes

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RTCA/DO-160G Environmental Conditions and Test Procedures for Airborne Equipment, provides a laboratory means to determine the performance characteristics of airborne equipment. Chapter 26 defines test conditions and procedure for flammability and fire resistance. The focus of this group is on flammability testing of electronic boxes in aircraft. To test an electronic box currently, it must be broken down and each part must be tested individually in one of three different Bunsen burner tests. This means several tests have to be done to certify one box and there is sometimes a lot of confusion as to how the rules apply to each part. The goal of this group is to create an alternative test method where the complete electronic box can be tested whole to simplify testing while maintaining or improving the level of safety. A lot of progress has been made on a test procedure that uses a methane line burner inserted into the electronic equipment being tested. The final draft is due to the RTCA committee in January 2021.