



AC NO: 37-3A

DATE: 3/20/75

TAD-486

ADVISORY CIRCULAR

DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION

SUBJECT: RADIO TECHNICAL COMMISSION FOR AERONAUTICS DOCUMENT DO-160

1. **PURPOSE.** This circular calls attention to the Radio Technical Commission for Aeronautics (RTCA) Document DO-160, "Environmental Conditions and Test Procedures for Airborne Electronic/Electrical Equipment and Instruments," dated February 28, 1975, and discusses how it may be used in connection with technical standard order authorizations.
2. **CANCELLATION.** Advisory Circular 37-3 dated January 10, 1969, is cancelled.
3. **REGULATIONS AFFECTED.** FAR Part 37.
4. **BACKGROUND.** Document DO-160 was developed by RTCA, at FAA's request, to provide a more up-to-date environmental test standard (for airborne electronic/electrical equipment and instruments) than those currently referenced in Federal Aviation Regulations, Part 37; e.g., RTCA Document DO-138, RTCA Document 120-61/DO-108, RTCA Document 100-54/DO-60, FAA's "Document for Environmental Test Procedures for Airborne Electronic Equipment" in Section 37.195, and the environmental standards in various instruments TSOs. FAA plans to initiate rule making aimed at up-dating its environmental standards, to reference DO-160 for this purpose. Pending rule making, however, the question has been asked whether applicants for TSO authorizations could use the environmental test standards in DO-160 in lieu of those referenced, or prescribed, in various Part 37 TSOs.
5. **HOW TO USE RTCA DOCUMENT DO-160.** An applicant for a TSO authorization for any electrical/electronic equipment and instruments covered by Part 37 may use an environmental test procedure set forth in RTCA Document DO-160 in lieu of the corresponding environmental test procedure in the TSO if he shows that the substitute procedure provides an equivalent level of safety. In each instance, the applicant must request approval to deviate, as prescribed in Section 37.9.

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6. WHERE TO OBTAIN COPIES OF DO-160. Copies of DO-160 may be obtained from:

RTCA Secretariat
Suite 655
1717 H Street, N.W.
Washington, D.C. 20006

\$10.00 per copy - RTCA members
\$20.00 " " - Non-members

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