

Loss of pressure not exceeding 10 percent in 24 hours from the initial test pressure. Good condition of the tire tread is not required.

6.3.3.4 *Taxi cycles.* The tire must withstand at least 10 taxi cycles on a dynamometer under the following test conditions:

Number of test cycles	Minimum tire load, lbs.	Minimum speed mph	Minimum roll distance, ft.
8	rated load	40	35,000
2	1.2 times rated load	40	35,000

6.3.4 *Alternate dynamometer tests.* For tires with a speed rating of 160 mph, test cycles which simulate landing may be used in lieu of the takeoff cycles specified in paragraphs 6.3.3.2 and 6.3.3.3. The tire must withstand 100 test cycles at rated load in accordance with paragraph 6.3.4.1 followed by 100 test cycles at rated load in accordance with paragraph 6.3.4.2.

6.3.4.1 *Low-speed landings.* In the first series of 100 landings, the test procedure for low-speed landings established under paragraphs 6.2.3 or 6.2.4, as appropriate, must be followed.

6.3.4.2 *High-speed landings.* In the second series of 100 landings, the test procedure for low-speed landings established under paragraphs 6.2.3 or 6.2.4, as appropriate, must be followed, except that the tire must be landed against the flywheel rotating at a speed of 160 mph with the rated load applied for the duration of the test. The unlanding speed must be adjusted as necessary in order that 44 percent of the kinetic energy, as calculated in paragraph 6.2.2, is absorbed by the tire during the series of tests.

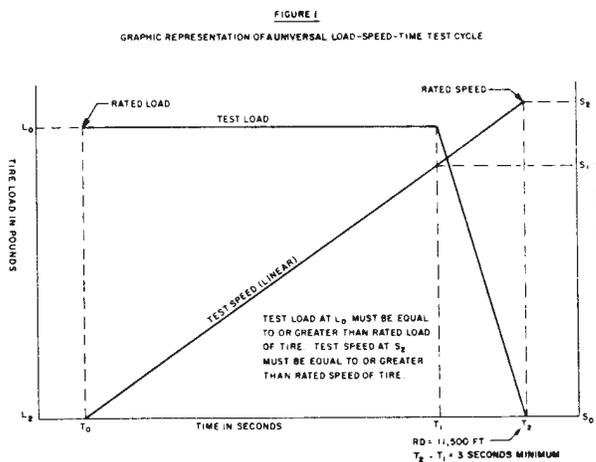


Figure 1

Ch. 9 (Amdt. 37-46, Eff. 12/31/79)

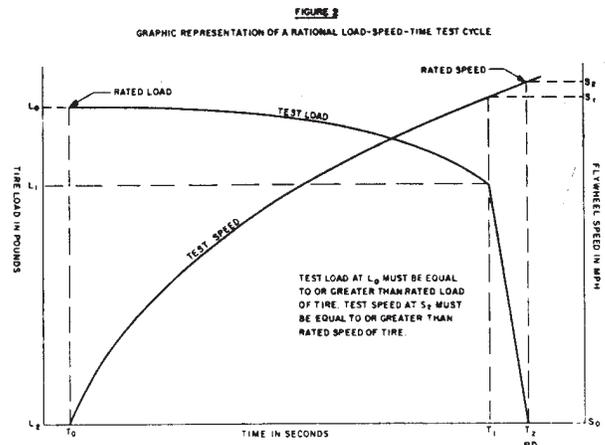


Figure 2

7.0 *Requalification tests.* Requalification in accordance with paragraph 6.0 of a given load rated tire required as a result of a tread design or material change will automatically qualify the same changes in a lesser load rated tire of the same size, speed rating, and skid depth provided—

7.1 The lesser load rated tire has been qualified to the applicable requirements specified in this standard; and

7.2 The ratio of qualification testing load to rated load for the lesser load rated tire does not exceed the same ratio for the higher load rated tire at any given test condition.]

§ 37.168 Airborne weather radar equipment—TTSO-C63b.

(a) *Applicability*—(1) This technical standard order prescribes the minimum performance standards that airborne weather radar equipment must meet in order to be identified with the applicable TSO marking. New models of equipment that are to be so identified, and that are manufactured on or after August 18, 1972, must meet the requirements of Radio Technical Commission for Aeronautics Document No. DO-134 entitled "Minimum Performance Standards—Airborne Weather and Ground Mapping Pulsed Radars," dated February 16, 1967, and Radio Technical Commission for Aeronautics Document No. DO-138 entitled "Environmental Conditions and Test Procedures for Airborne Electronic/Electrical Equipment and Instruments" dated June 27, 1968, except as provided in subparagraph (2) of this paragraph. RTCA Documents Nos. DO-134]

and DO-138 are incorporated herein in accordance with 5 U.S.C. 552(a) (1) and § 37.23 of the Federal Aviation Regulations, and are available as indicated in § 37.23. Additionally, RTCA Documents Nos. DO-134 and DO-138 may be examined at any FAA regional office of the Chief of Engineering and Manufacturing Branch (or in the case of the Western Region, the Chief, Aircraft Engineering Division), and may be obtained from the RTCA Secretariat, Suite 655, 1717 H Street, N.W., Washington, D.C., 20006, at a cost of \$6 per copy for Document No. DO-134 and \$8 per copy for Document No. DO-138.

(2) *Exceptions.* (i) RTCA Paper DO-108, referenced in RTCA Document No. DO-134, has been superseded by RTCA Document No. DO-138, and the requirements of RTCA Document No. DO-134 must be met using the environmental test condition of RTCA Document No. DO-138. The exception provided in paragraph 2.14.1 of RTCA Document No. DO-134 is applicable after substituting the words "Figure 2 on page 13 of DO-138 Appendix A" in place of the words "Figure 4-A on page 9 of DO-108 Appendix A."

(ii) RTCA Document No. DO-138 lists environmental test conditions covering equipment subjected to water, hydraulic fluid, sand and dust, fungus and salt spray, for which there are no corresponding equipment performance requirements in RTCA Document No. DO-134, and compliance with these environmental test conditions is not required. If the applicant elects to certify compliance with any of those environmental test conditions, the equipment performance requirements of paragraph 2.7 of RTCA Document No. DO-134 must be met after the equipment has been exposed to those test conditions.

(b) *Marking.* In addition to the markings specified in § 37.7, the article must be permanently and legibly marked with the following information:

(1) The environmental categories over which the article has been designed to operate must be marked in accordance with RTCA Document DO-138, Appendix B.

(2) The maximum system range in nautical miles, declared by the article manufacturer.

This must be identified on the name plate, following the environmental category designations, by the word "class" and the following class number which identifies the maximum system range:

Class	Maximum system range in nautical miles
1	25
2	50
3	75
4	100
5	125
6	150
7	over 150

(3) Each separate component of the article (antenna, transmitter-receiver, indicator, etc.) must be identified with at least the name of the manufacturer, the TSO number, and the environmental categories over which the article component is designed to operate. Where an environmental test procedure is not applicable to that component and the test is not conducted, an X should be placed in the space assigned for that category.

(c) *Data requirements.* (1) In accordance with § 37.5, the manufacturer must furnish to the Chief, Engineering and Manufacturing Branch, Flight Standards Division (or in the case of the Western Region, the Chief, Aircraft Engineering Division), Federal Aviation Administration, in the region in which the manufacturer is located, the following technical data:

(i) One copy of the operating instructions and equipment limitations of the manufacturer.

(ii) One copy of the installation procedures with applicable schematic drawings, wiring diagrams, and specifications, and a list of components (by part number) or possible combinations thereof, which make up a system complying with this TSO. The procedures must set forth all limitations, restrictions, or other conditions pertinent to the installation.

(iii) One copy of the manufacturer's test report.

(2) One copy of the technical data specified in subparagraph (1) (ii) of this paragraph must be furnished with each article manufactured.

(d) *Previously approved equipment.* Airborne weather radar equipment approved prior

to the effective date of this section may continue to be manufactured under the provisions of its original approval.

§ 37.169 Oxygen mask assembly, continuous flow, passenger (for air carrier aircraft)—TSO-C64.

(a) *Applicability*—(1) *Minimum performance standards.* Minimum performance standards are hereby established for passenger oxygen mask assemblies which are to be approved for use on civil aircraft of the United States. New models of passenger oxygen mask assemblies manufactured for installation on civil aircraft on or after the effective date of this section shall

meet the standards set forth in National Aircraft Standards, NAS 1179, "Oxygen Mask Assembly, Passengers", Revision 2, dated March 31, 1961,* with exceptions to the standard listed in subparagraph (2) of this paragraph.

(2) *Exceptions.* (i) The following specifically numbered subparagraphs in NAS 1179 are not concerned with minimum performance and, therefore, are not essential to compliance with this section: 2.0 in its entirety, 3.1.1, 3.1.2, 3.1.3.7, 3.1.12, 3.3.11 in its entirety, 4.2, 4.3.5, 5.3, 5.6, 5.7, and 5.8.

*Copies of this standard may be obtained from the National Standards Association, Inc.