

U. S. DEPARTMENT OF COMMERCE
CIVIL AERONAUTICS ADMINISTRATION
WASHINGTON 25, D. C.

TECHNICAL STANDARD ORDER
Regulations of the Administrator
Part 514

SUBJECT: Aircraft Seats and Berths (Type I Transport, 6g Forward Load)

TSO-C25a

Part 514—Technical Standard Orders for Aircraft Materials,
Parts, Processes, and Appliances

Under section 601 of the Civil Aeronautics Act of 1938 and the delegation of authority from the Civil Aeronautics Board in §§ 3.18, 4a.31, 4b.18, 6.18, and 7.18 of the Civil Air Regulations, the Administrator of Civil Aeronautics is authorized to adopt performance standards and specifications of materials, parts, processes, and appliances used in aircraft as he may find necessary to implement provisions of the Civil Air Regulations. The Administrator adopted the Technical Standard Order system as a means to carry out this delegated authority. This system, in brief, provides for CAA-industry cooperation in the development of these performance standards, and a form of self-regulation by industry in demonstrating compliance with these standards. Since the original adoption of this part, which contains the C series TSO's, it has been found desirable to make clarifying editorial and format changes. Hence, Part 514 of the Regulations of the Administrator is being amended to provide two subparts. Subpart A contains the general requirements applicable to all Technical Standard Orders, such as "Method of Conformance," "Marking," and "Deviations." Subpart B contains the technical specifications to which a specific product must conform.

SUBPART A—GENERAL

§ 514.1 *Basis and purpose*—(a) *Basis*. Section 601 of the Civil Aeronautics Act of 1938, as amended, and §§ 3.18, 4a.31, 4b.18, 6.18, 7.18 of the Civil Air Regulations.

(b) *Purpose*. The purpose of this part is to establish minimum performance standards for aircraft materials, parts, processes, and appliances which are to be used on civil aircraft of the United States, and to prescribe the manner by which the manufacturer must show compliance with such performance standards.

§ 514.2 *Method of conformance*. A manufacturer of an aircraft material, part, process, or appliance for which standards are established in Subpart B of this part, prior to distribution for use on a civil aircraft of the United States, shall furnish a written statement of conformance certifying that the material, part, process, or appliance meets the applicable performance standards established in this part. The statement of conformance shall be signed by a person duly authorized by the manufacturer, and shall be furnished to the Chief, Aircraft Engineering Division, Office of Aviation Safety, Civil Aeronautics Administration, Washington 25, D. C.

If complaints of nonconformance with the requirements of this Order are brought to the attention of the CAA and investigation indicates that such complaints are justified,

the Administrator will take appropriate action to restrict the use of the product in civil aircraft.

§ 514.3 *Marking*. Materials, parts, processes, and appliances for which a statement of conformance has been submitted, shall be legibly and permanently marked with the following information:

(a) Name and address of the manufacturer responsible for compliance,

(b) Equipment name, or type or model designation,

(c) Weight to the nearest pound and fraction thereof,

(d) Serial number and/or date of manufacture, and

(e) Applicable Technical Standard Order (TSO) number.

§ 514.4 *Deviations*. No deviation will be granted from the performance standards established in Subpart B. Requests for deviation from other requirements of this part should be addressed to the Aircraft Engineering Division, Office of Aviation Safety, Civil Aeronautics Administration, Washington 25, D. C.

Technical Standard Orders are obtainable without charge from the Civil Aeronautics Administration, Aviation Information Office, Washington 25, D. C.

SUBPART B — MINIMUM PERFORMANCE STANDARDS

§514.35 Aircraft seats and berths (Type I transport, 6g forward load)—TSO-C25a—(a) Applicability—(1) Minimum performance standards. Minimum performance standards are hereby established for aircraft seats and berths (Type I transport, 6g forward load) which are to be used in civil aircraft of the United States. These standards apply to Type I transport seats for use in transport category aircraft for which an application for type certificate was made prior to March 5, 1952.^{1/} New models of seats and berths (Type I transport, 6g forward load) manufactured for installation in civil aircraft on or after the effective date of this order shall meet the standards of National Aircraft Standard Specification 806, revised January 1, 1956,^{2/} with the changes and exceptions listed in subparagraph (2). Seats and berths approved by the Civil Aeronautics Administration prior to the effective date of this order may continue to be manufactured under the provisions of their original approval.

(2) Exceptions. (i) The ultimate loads corresponding to the aircraft reduced weight gust load factor or the airplane designer's special requirements may exceed the ultimate down loads for Type I seats specified in subsection 4.1.2 of NAS 806. For the purpose of this order, in order to provide for such loading conditions, the ultimate down loads specified in Table I of 4.1.2 for Type I seats shall be 1,000 pounds (6g) instead of 765 pounds.

(ii) To insure that pilot and copilot seats will provide for the rearward loads resulting from the application of pilot forces to the flight controls, such seats shall withstand a rearward load of 450 pounds. The load shall be applied 8 inches above the intersection of the seat back with the seat bottom.

(iii) The weight of the seat or berth times the appropriate "g" value shall be added to the design ultimate load specified in subdivision (i) and in subsection 4.1.2 of NAS 806.

(iv) For the purpose of this order, 4.3(c) of NAS 806 should read: "that the structure is capable of supporting without failure for at least 3 seconds the ultimate loads specified in this order when applied separately."

(b) Marking. The weight required in §514.3 need not be included.

(c) Effective date. January 15, 1957.

^{1/} Standards for Types II, III, IV, and I (for installation in aircraft for which an application for type certificate was made after March 5, 1952,) are contained in TSO-C39.

^{2/} Copies may be obtained from the National Standards Association, 616 Washington Loan and Trust Building, Washington 4, D. C.

(1/4/57)