UNITED STATES OF AMERICA
CIVIL AERONAUTICS BOARD
WASHINGTON, D. C.

Civil Air Regulations Amendment 4a-4
Effective: February 6, 1950
Adopted: December 29, 1949

SAFETY BELTS

Service reports and the results of various studies conducted during the past few years indicate that the standards in the Civil Air Regulations for safety belts are not high enough to afford the proper protection for occupants of aircraft. It has also been learned that the belts now in general use are subject to service deterioration which further reduces the strength factor. The Board, therefore, is amending the requirements for safety belts to establish higher safety standards for this equipment. (For this purpose the Board is amending simultaneously Parts 3, 4a, 4b, 6, 15, 41, 42, 43, and 61.) The regulations are also being amended, in line with the policy of the Federal agencies to delegate maximum responsibility consistent with air safety to the industry, to permit safety belts to be approved on the basis of certified compliance with appropriately published specifications (Technical Standard Orders), as is now provided in §§ 3.31, 4a.31, 4b.41, and 6.6 of the Civil Air Regulations, instead of the type certification procedure currently required in Part 15.

It is our understanding that the Technical Standard Orders for safety belts will adopt specifications based upon those approved February 9, 1948, by the National Aircraft Standards Committee as NAS 802, except for the minimum strength values. The minimum strength values to be established in the Technical Standard Orders, while less than the values stated in NAS 802, are higher than existing requirements and are more consistent with the crash load factor specified in the other parts of the regulations than the values stated in NAS 802.

The regulations hereby adopted provide that safety belts installed on airplanes manufactured on or after January 1, 1951, shall be manufactured under a Technical Standard Order.

Interested persons have been afforded an opportunity to participate in the making of this amendment and due consideration has been given to all relevant matter presented.

In consideration of the foregoing the Civil Aeronautics Board hereby amends Part 4a (14 CFR, Part 4a, as amended) effective February 6, 1950:

1. By amending § 4a.193 to read as follows:

4a.193 Safety belt loads. On all airplanes manufactured on or after January 1, 1951, structures, including seats, berths, and their attachments, which carry safety belt loads shall be capable of withstanding the following ultimate accelerations assumed to act upon the occupants of the belt.

Upward	2.0g
Forward	6.0g
Sideward	1.5g

2. By amending the cross references following §§ 4a.511 to read as follows:

CROSS REFERENCES: For safety belt requirements, see §§ 4a.193, 4a.532 (i), and 4a.565.

3. By amending § 4a.532 (i) to read as follows:

(i) Approved safety belts for all occupants (see § 4a.565)

4. By amending § 4a.565 to read as follows:

4a.565 Safety belts. Airplanes manufactured on or after January 1, 1951, shall be equipped with safety belts approved in accordance with §§ 4a.31. In no case shall the rated strength of the safety belt be less than that corresponding with the ultimate load factors specified in §§ 4a.193, taking due account of the dimensional characteristics of the safety belt installation for the specific seat or berth arrangement. Safety belts shall be attached so that no part of the anchorage will fail at a load lower than that corresponding with the ultimate load factors specified in § 4a.193.

(Sec. 205(a), 52 Stat. 984; 49 U.S.C. 425(a). Interpret or apply secs. 601, 603, 52 Stat. 1007, 1009; 49 U.S.C. 551, 553)

By the Civil Aeronautics Board:

/s/ M. C. Mulligan

M. C. Mulligan
Secretary

(SEAL)

This is the third amendment to Part 4a reprinted in the July 16, 1949 issue of the Federal Register (Vol. 14, No. 136, Part II, Section I).