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

Civil Air Regulations Amendment 40-12
Effective: December 29, 1954
Adopted: December 29, 1954

SCHEDULED INTERSTATE AIR CARRIER CERTIFICATION AND OPERATION RULES

EXTENSION OF EFFECTIVE DATE OF REQUIREMENT FOR THE CARRIAGE OF CRASH AX(ES) ABOARD SCHEDULED AIR CARRIER AIRPLANES

Section 40.173 (d) of Part 40 of the Civil Air Regulations requires that "On and after January 1, 1955, all airplanes shall be equipped with at least one crash ax, and if accommodations are provided for more than 30 persons including the crew, airplanes shall be equipped with at least two crash axes. This equipment shall be stowed in readily accessible locations."

The Air Transport Association has recently requested that further study be made prior to the implementation of this requirement. Questions have been raised as to the effectiveness of a crash ax for cutting through the fuselage of an airplane and, particularly, to the advisability from a safety standpoint of stowing a crash ax in the passenger compartment of the airplane.

The Bureau of Safety Regulation has been conducting an investigation into the question of the need for a crash ax as an article of emergency equipment for all air carrier operations. Data received from the air forces concerning tests which were conducted by them indicated that the crash kit, which included a crash ax, was inadequate for the purpose for which it was intended. More recently the NACA has conducted a series of tests in order to determine the effectiveness of the crash ax in cutting an opening in an airplane fuselage through which passengers could be evacuated in an emergency. On the basis of these tests it appeared doubtful whether the average passenger could chop an adequate opening through the fuselage by means of an ax. Furthermore, it was concluded that the opening would have to be sufficient in size to permit the passenger to step through to the ground because of the sharp jagged edges resulting from the use of an ax. In fact, the military has required that the ax be supplemented by additional equipment such as a saw or a six pound sledge hammer in order to cope with the jagged edges.

In view of the foregoing information, the justification for a requirement for an ax for the use of passengers would appear to be somewhat uncertain. This is particularly true of the provision for a second ax on larger airplanes. Therefore the Board feels that additional investigation

of the problem is in order prior to making final disposition of the crash ax requirement. Inasmuch as this requirement is so closely allied with the requirement for chop marks on the fuselage, the crash ax requirement will be extended to coincide with the April 1, 1955, effective date for "chop marks."

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 40 of the Civil Air Regulations, (14 CFR Part 40, as amended) effective immediately.

By amending § 40.173 (d) by deleting the date "January 1, 1955" and inserting in lieu thereof the date "April 1, 1955."

(Sec. 205 (a), 52 Stat. 984; 49 U.S.C. 425 (a). Interpret or apply secs. 601, 605, 52 Stat. 1007, 1010, as amended; 49 U.S.C. 551, 555)

By the Civil Aeronautics Board:

/s/ M. C. Mulligan

M. C. Mulligan
Secretary

(SEAL)

This is the twelfth amendment to Part 40, which became effective April 1, 1954.