

UNITED STATES OF AMERICA  
CIVIL AERONAUTICS BOARD  
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Civil Air Regulations Amendment 42-21

Effective: October 1, 1954

Adopted: March 23, 1954

AIR-SPEED INDICATORS AND ASSOCIATED OPERATIONS REQUIREMENTS  
FOR LARGE AIRCRAFT

Presently effective Part 42 of the Civil Air Regulations contains no requirements specifying the dimensional units to be used in air carrier operations. It has been recommended, however, by the Air Coordinating Committee, the Department of Defense, the Air Transport Association of America, and the Air Line Pilots Association, that the regulations should require the use of nautical miles instead of statute miles, and the use of air speed expressed in knots instead of miles per hour. A notice of proposed rule making was published on December 2, 1953, in the Federal Register (18 F.R. 7659), in which it was proposed that the operations requirements pertaining to air carriers be amended to require that air-speed limitations and related information be in knots and nautical miles. It was further proposed that after January 1, 1956, all air-speed indicators in large aircraft operated under this part should be calibrated in knots. While comment received indicated diverse views, those operators primarily affected by this amendment offered no objection to the proposed changes.

This amendment, accordingly, requires for the operation of large aircraft that air-speed limitations and related information contained in the Airplane Flight Manual and pertinent placards be in the same units as used on the air-speed indicator, that all such indicators be calibrated in the same units when more than one air-speed indicator is required, and, for air-speed indicators calibrated in statute miles per hour, that a readily usable means shall be provided for the flight crew to convert statute miles per hour to knots. Since it will require a certain amount of time to comply with these requirements they will become effective on October 1, 1954. This amendment also contemplates that in the future all air-speed indicators in large aircraft operated under this part will be calibrated in knots and that all air-speed limitations and related information contained in the Airplane Flight Manual and pertinent placards will be expressed in knots. Since it will take about two years for airplanes to be equipped with these indicators, these latter provisions will become effective April 1, 1956.

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 42 of the Civil Air Regulations (14 CFR, Part 42 as amended) effective October 1, 1954:

By adding a new § 42.22a to read as follows:

42.22a Air-speed indicators, limitations, and related information for large aircraft.

(a) Air-speed limitations and related information contained in the Airplane Flight Manual and pertinent placards shall be expressed in the same units as used on the air-speed indicator.

(b) When more than one air-speed indicator is required, all such indicators shall be calibrated to read in the same units.

(c) When an air-speed indicator is calibrated in statute miles per hour, a readily usable means shall be provided for the flight crew to convert statute miles per hour to knots.

(d) On and after April 1, 1956, all air-speed indicators shall be calibrated in knots, and all air-speed limitations and related information contained in the Airplane Flight Manual and pertinent placards shall be expressed in knots.

(Sec. 205 (a), 52 Stat. 984; 49 U.S.C. 425 (a). Interpret or apply secs. 601, 604, 52 Stat. 1007, 1010, as amended; 49 U.S.C. 551, 554)

By the Civil Aeronautics Board:

/s/ M. C. Mulligan

M. C. Mulligan  
Secretary

(SEAL)