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

Civil Air Regulations Amendment 41-4
Effective: August 1, 1949
Adopted: June 29, 1949

TEMPERATURE ACCOUNTABILITY FOR TAKE-OFF LIMITATIONS FOR TRANSPORT CATEGORY AIRPLANES

Special Civil Air Regulation No. 397, as adopted by the Board on August 21, 1947, established certain values, for various types of transport category airplanes, to be used to compensate more properly for the effect of temperature variations on airplane performance. Due to the introduction of new types of airplanes since the adoption of the regulation, and more recent engineering data on some types for which values had already been established, it was proposed to amend the rule establishing appropriate specific values for each of the current types of transport category airplanes operated by the air carriers. Accordingly, an appropriate notice of proposed rule making was published in the Federal Register on March 30, 1949 (14 F.R. 1411).

Comments received as a result of this publication indicated that considerable thought and inquiry has been devoted to the general problem of temperature effect on airplane performance, and that the admittedly simplified form of the proposed rule giving specific values to be used for a single basic model might not reflect accurately the maximum take-off weight or runway length necessary for safe operation for some variations of the basic type of airplane currently being manufactured or used by the air carriers. For this reason, the Board believes that it is desirable to revert to the general practice of promulgating regulations which establish a standard of safety, allowing their implementation in individual cases by the industry and the Administration. The Board, therefore, is adopting amendments to the various parts of the Civil Air Regulations which incorporate the formula used in establishing the current specific values set forth in Special Civil Air Regulation No. 397. The amendments require the entry of the appropriate values for each airplane in the Airplane Flight Manual, and provide that all transport category airplanes shall be operated in accordance with the values so entered.

The question of appropriate regulatory requirements for temperature effect on airplane performance will continue to be studied. Further consideration will be given to these regulations in the light of possible international developments.

It is our opinion that the notice of proposed rule making referred to herein adequately advised the public of the issues involved, and since the

amendments herein adopted reflect the comment thus received, no further rule-making procedures are required.

In consideration of the foregoing the Civil Aeronautics Board hereby amends Part 41 (14 CFR, Part 41, as amended) effective August 1, 1949:

By adding a new § 41.270 (d) to read as follows:

41.270 (d) No airplane shall be taken off at a weight which exceeds the allowable weight for the runway being used as determined in accordance with the take-off runway limitations of the transport category operating rules, after taking into account the temperature operating correction factors required by §§ 4a.75322-T or 4b.1223, and set forth in the Airplane Flight Manual for the airplane.

(Secs. 205 (a), 601, 604, 52 Stat. 984, 1007, 1010; 49 U.S.C., 425 (a), 551, 554).

By the Civil Aeronautics Board:

/s/ Fred A. Toombs

Fred A. Toombs
Acting Secretary

(SEAL)

Part 41 last printed July 20, 1948.