

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

Effective: July 1, 1956  
Adopted: June 28, 1956

SPECIAL CIVIL AIR REGULATION

APPLICATION OF TRANSPORT CATEGORY REQUIREMENTS  
TO C-46 TYPE AIRPLANES

On June 30, 1954, the Civil Aeronautics Board adopted Special Civil Air Regulation No. SR-406, effective July 1, 1954, which provided for the modification and operation of C-46 type airplanes in passenger service. On June 7, 1955, the Board adopted Special Civil Air Regulation No. SR-406A, effective June 7, 1955, which added certain substantive and clarifying amendments to SR-406. On March 30, 1956, the Board adopted Special Civil Air Regulation No. SR-406B, effective April 1, 1956, which extended the date for modification of C-46 airplanes in passenger service from April 1, 1956, to July 1, 1956. The preamble material of these three Special Civil Air Regulations is incorporated herein by reference.

SR-406B provided only temporary relief from those provisions of Special Civil Air Regulation No. SR-406A which prevented the use of C-46 airplanes in passenger operations under Part 42 of the Civil Air Regulations on and after April 1, 1956, unless recertificated in accordance with the regulation. In SR-406B, the Board indicated that subject to persuasive reasons for failing, type certification had to be accomplished before July 1, 1956, and that, within the effective period of the regulation, the Board would determine a later end effective date by which recertification of these airplanes in the transport category must be completed. It was expressly stated that the later end effective date for recertification would depend on a bona fide showing of meeting the type certification requirements.

Since the adoption of Special Civil Air Regulation No. SR-406B, two type certificates have been issued under its provisions and one application for a type certificate has been received although complete data have not been submitted to the Civil Aeronautics Administration as of the date of adoption of this regulation, SR-406C.

In adopting SR-406B, the Board anticipated obtaining a schedule of modification of C-46 airplanes from the applicants for type certification. In its attempt to obtain this information, not only has the Board not received such a schedule, but has been advised that only a comparatively few operators have actual contractual agreements with holders of type certificates to accomplish the required modification.

The Board has previously stated that a final compliance date for modification would depend on a bona fide showing that the aircraft certification requirements will be met in the reasonably near future. However, in the absence of such a showing by more than a few operators, the Board must establish an end compliance date without the benefit of any complete and detailed modification schedules. In the only formal request for an extension of the effective date of these regulations which the Board has received, it is indicated that required modifications are expected to be completed by January 1, 1957. No other information available to the Board indicates that this is not a reasonable end effective date; therefore, January 1, 1957, is hereby established as the date when recertification is required.

Since October 1, 1955, the Administrator has been authorized to permit the continued operation of C-46 aircraft in passenger service on a showing by operators that "genuine and diligent efforts" have been made to accomplish the required modifications. In the light of the fact that there now exist at least two persons possessing type certificates on the basis of which such modifications may be made, there no longer appears to be any reason for not requiring the showing of a firm contract between the operator and the holder of such a type certificate indicating that the required modifications will be completed prior to January 1, 1957, prior to such operations. Accordingly, this Special Civil Air Regulation contains a requirement that before the Administrator is authorized to continue to permit operation of C-46 airplanes in passenger service, between July 1, 1956, and January 1, 1957, there must be a showing by the operator that he has a firm contract with the holder of a type certificate to complete modifications prior to January 1, 1957, except that the Administrator may authorize during the period July 1, 1956, through July 15, 1956, such operations without a showing of such firm contract where the Administrator has previously permitted such operations based on genuine and diligent efforts to complete the required modifications. In other words, the Administrator may authorize continued operations of C-46 airplanes in passenger service from July 1, 1956, to July 16, 1956, where he has previously given such authority. However, on and after July 16, 1956, the Administrator may authorize such continued operations only upon a showing by the operator that he has a firm contract with the holder of a type certificate to complete modifications prior to January 1, 1957.

As stated hereinbefore, all the preamble material pertinent to the application of transport category requirements to C-46 type airplanes appearing in SR-406, SR-406A, and SR-406B is incorporated herein by reference. However, in order to obviate any possible confusion as to which specific regulations are presently applicable to accomplish the recertification of the C-46 in passenger service, all such regulations are included in this Special Civil Air Regulation.

Since this regulation continues in effect the same rules as are presently applicable to C-46 type airplanes, with the exception of the compliance date listed herein, without diminution in safety standards, and since it would be in the public interest to prescribe rules to become effective on July 1, 1956, to permit the continuation of operation of C-46 type airplanes in passenger service, the Board finds that omission of notice and public procedure is not contrary to public interest and that good cause exists for making this regulation effective on less than 30 days' notice.

In consideration of the foregoing, the Civil Aeronautics Board hereby makes and promulgates the following Special Civil Air Regulation, effective July 1, 1956:

1. Contrary provisions of the Civil Air Regulations notwithstanding (in particular the provisions of § 42.15 (b) of Part 42), C-46 airplanes may be used in passenger operations conducted under Part 42 of the Civil Air Regulations. Such airplanes shall be operated in accordance with § 42.15 (a) of Part 42 and the provisions of this special regulation.

2. C-46 type airplanes, when used in passenger operations in accordance with paragraph 4 of this regulation, shall not be operated at weights exceeding those which are demonstrated to the Administrator will allow compliance with the performance requirements of Part 4b, except that in determining the maximum take-off weight, such weight shall be limited only to a value at which the airplane has a rate of climb equal to  $0.035 V_{S1}^2$  in the take-off configuration at sea level with the landing gear retracted but with the propeller of the inoperative engine feathered rather than windmilling.

3. Provisionally, pending a determination by the Administrator of the weights at which C-46 airplanes will meet the standards prescribed by paragraph 2 of this regulation, the maximum take-off weight of such airplanes, when used in the manner herein referred to, shall not exceed 44,300 pounds: Provided, That in the case of C-46 airplanes equipped with Hamilton Standard propellers with blades Model Number 5491A-9 or approved equivalent which have been clipped in accordance with specifications approved by the Administrator, such provisional maximum weight shall be increased by 1,000 pounds until such time as the Administrator shall have determined by suitable tests another value to correspond to the additional efficiency obtainable by the use of such propellers, and thereafter by such other value.

4. The Administrator of Civil Aeronautics may authorize continued operation of C-46 airplanes in passenger service in accordance with paragraphs 2 and 3 of this regulation until January 1, 1957, if he finds that the applicant for such authorization has a bona fide, firm contract with the holder of a type certificate indicating that the required modifications will be completed prior to January 1, 1957, except that the Administrator may authorize during the period July 1, 1956, through July 15, 1956, such continued operation without a showing of such firm contract where the Administrator has previously permitted such operations based on genuine and diligent efforts to complete the required modifications. Such type certificate shall indicate that it meets the transport category requirements of Part 4b of the Civil Air Regulations in effect on July 20, 1950, with the exceptions authorized in SR-406A.

5. On and after July 1, 1956, (except as provided in paragraph 4) C-46 airplanes in passenger service shall comply with the provisions of Part 4b as in effect on July 20, 1950, except as otherwise provided hereinafter:

a. The provisions of §§ 4b.0 through 4b.19 of Part 4b, effective May 18, 1954, shall be complied with.

b. The provisions of §§ 4b.100 through 4b.190 need not be complied with.

c. The birdproof windshield requirements of § 4b.352 need not be complied with.

d. The provisions of §§ 4b.480 through 4b.490 effective May 16, 1953, shall be complied with in lieu of §§ 4b.480 through 4b.489 effective July 20, 1950, with the exception of subparagraph 4b.484 (a) (1) which shall be applicable as effective July 20, 1950, and paragraph 4b.487 (e) which has no counterpart in the 1950 regulations.

6. On and after January 1, 1957, C-46 airplanes in passenger service shall be recertificated in the transport category in accordance with paragraph 5 of this regulation, and shall comply with the

provisions of §§ 4b.100 through 4b.190 with the following exception: In determining the take-off path in accordance with § 4b.116 and the one-engine-inoperative climb in accordance with § 4b.120 (a) and (b), the propeller of the inoperative engine may be assumed to be feathered if there is installed either an approved means for automatically indicating when the particular engine has failed or an approved means for automatically feathering the propeller of the inoperative engine.

7. In applying the provisions of paragraphs 5 and 6 of this regulation, where literal compliance with the requirements of §§ 4b.130 through 4b.190 of Subpart B and Subparts C, D, E, and F of Part 4b is extremely difficult to accomplish, and where the Administrator finds that service experience with the C-46 type airplane so justifies, the Administrator may authorize deviations from specific details of these requirements, taking into account the effect of design changes.

8. On or after January 1, 1957, C-46 airplanes in passenger service shall be operated in accordance with the performance operating limitations applicable to transport category airplanes.

9. C-46 airplanes which comply with the provisions of paragraphs 5 and 6 of this regulation may be used in passenger operations conducted under the provisions of Parts 40 and 41 provided they are operated in accordance with paragraph 8.

10. This Special Civil Air Regulation supersedes Special Civil Air Regulation SP-406B.

(Sec. 205 (a), 52 Stat. 984; 49 U.S.C. 425 (a). Interpret or apply secs. 601, 603, 604, 52 Stat. 1007, 1009, 1010, as amended; 49 U.S.C. 551, 553, 554)

By the Civil Aeronautics Board:

/s/ M. C. Mulligan

M. C. Mulligan  
Secretary

(SEAL)