UNITED STATES OF AMERICA
FEDERAL AVIATION AGENCY
WASHINGTON, D.C.

Civil Air Regulations Amendment 4b-13
Effective: December 20, 1962
Issued: December 20, 1962

[Reg. Docket No. 1532; Amdt. 4b-13]

PART 4b—AIRPLANE AIRWORTHINESS; TRANSPORT CATEGORIES

Turboprop Conversions of Transport Category Airplanes

Special Civil Air Regulation No. SR-423 effective December 20, 1957, terminates on December 20, 1962. The purpose of this amendment to Part 4b is to incorporate the substance of SR-423 permanently into the Civil Air Regulations. SR-423 permits the type certification of turboprop airplanes, which previously were type certificated with the same number of reciprocating engines, without requiring compliance with all of the applicable requirements of the Civil Air Regulations effective on the date of application for the type certificate for the turboprop version. This amendment affects applicants for a type certificate for a turboprop conversion.

Section 4b.11(e) of Part 4b of the Civil Air Regulations provides that a change to engines employing different principles of operation or propulsion requires the issuance of a new type certificate based upon compliance with the regulations, together with all amendments thereto, effective on the date of the new application. A change from reciprocating engines to turboprop engines is a change to engines employing different principles of operation. Compliance with all the latest requirements of Part 4b would therefore be required for the type certification of a turbopropeller-powered transport category airplane previously certificated with the same number of reciprocating engines. Based, however, upon the belief that compliance with the latest requirements of Part 4b for such airplanes might be burdensome, impractical and not essential to safety, SR-423 was adopted in December of 1957 as a relaxation of the requirements of Part 4b. SR-423 permits the certification of turbopropeller-powered airplanes upon the showing of compliance with the airworthiness provisions applicable to the airplane as type certificated with reciprocating engines, together with certain later provisions of the Civil Air Regulations in effect on the date of application for a new or supplemental type certificate which are applicable or related to the powerplant of the turbopropeller-powered version. In addition, under the provisions of SR-423, transport category airplanes with turboprop replacements are required to comply with only the certification performance requirements of SR-422.

By its own terms, SR-423 terminates on December 20, 1962. The preamble to that regulation states, however, that at the end of its period of effectiveness the regulation would be evaluated for the purpose of considering the incorporation of the substance of its rules in the permanent body of the Civil Air Regulations. In this connection, the Federal Aviation Agency is aware that there is a continuing interest within the industry in the installation of turbopropeller-powered engines on airplanes presently equipped with reciprocating engines and that compliance with the latest provisions of Part 4b for such installation would be burdensome. Furthermore, experience has shown that the provisions of SR-423 provide an adequate level of safety for the airplanes certificated thereunder and that compliance with all of the latest requirements of Part 4b is not essential in the interest of safety for the certification of transport category airplanes with turboprop replacements. The Agency believes, therefore, that the substance of the provisions of SR-423 should be incorporated permanently into the Civil Air Regulations.

In order to accomplish the foregoing, § 4b.11(e)(2) is amended by deleting the words "operation or". Thus the provisions of that section are made applicable only to a change to engines employing different principles of propulsion. Since reciprocating and turboprop engines employ the same principles of propulsion, airplanes involving a conversion from reciprocating to the same number of turboprop engines will not be affected by the requirement for a new type certificate. Furthermore, to make the provisions presently set forth in SR-423 explicitly applicable to such airplanes, they are being incorporated into a new paragraph (f) under § 4b.11.

Consistent with the provisions of SR-423, this amendment requires that turboprop airplanes which were previously type certificated with the same number of reciprocating engines shall comply only with the certification performance requirements prescribed in Special Civil Air Regulation SR-422B. Therefore, a concurrent amendment is being made to SR-422B to limit the applicability of that regulation, with respect to turboprop airplanes which were previously type certificated with the same number of reciprocating engines, to compliance with the certification performance requirements set forth therein.

Since this amendment extends the provisions of a current regulation, and imposes no additional burden upon any person, compliance with the notice and public procedure provisions of the Administrative Procedure Act is unnecessary, and good cause exists for making it effective on less than 30 days' notice.

In consideration of the foregoing, Part 4b of the Civil Air Regulations (14 CFR Part 4b) is hereby amended as follows, effective December 20, 1962:

By amending § 4b.11 by deleting from paragraph (a) the words "and (e)" and inserting in lieu thereof "(e), and (f)"; by deleting from subparagraph (e)(2) the words "operation or"; and by adding a new paragraph (f) to read as follows:

§ 4b.11 Designation of applicable regulations.

* * * * *

(f) Except as otherwise required by paragraph (e)(3) of this section compliance with the provisions of subparagraphs (1) and (2) of this paragraph is required for the type certification of a turbopropeller-powered airplane which was previously type certificated with the same number of reciprocating engines:

(1) The requirements of this part applicable to the airplane as type certificated with reciprocating engines and, in addition thereto or in lieu thereof as appropriate, the provisions of subdivisions (i) through (iv) of this subparagraph, effective on the date of application for type certification of the turbopropeller-powered airplane;

(i) The certification performance requirements prescribed in paragraph (2) of Special Civil Air Regulation No. SR-422B;

(ii) The powerplant requirements of this part applicable to the turboprop airplane;

(iii) The requirements of this part for the standardization of cockpit controls and instruments, except when a showing of compliance with a particular detailed requirement would be impractical and would not contribute materially to standardization; and

(iv) Such other requirements of this part applicable to the turboprop airplane which are found to be related to the changes in engines and which are necessary to insure a level of safety of the turboprop airplane equivalent to that established for the airplane certificated with reciprocating engines.

(2) If new limitations are established with respect to weight, speed, or altitude of operation, which are significantly altered from those approved for the airplane with reciprocating engines, compliance shall be shown with all of the requirements of this part, applicable to the specific limitations being changed, which are in effect on the date of application for type certification of the turbopropeller-powered airplane.

(Secs. 313(a) 601, 603; 72 Stat. 752, 775, 776; 49 U.S.C. 1354, 1421, 1423)

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N. E. HALABY,
Administrator.

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63—4655