CIVIL AIR REGULATIONS

CIVIL AERONAUTICS BOARD

[Reprinted from Federal Register of November 2, 1954]

PART 35
FLIGHT ENGINEER CERTIFICATES

Civil Liberty

As amended to November 1, 1954

WASHINGTON, D. C.

For sale by the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C. . . . . Price 5 cents

TITLE 14—CIVIL AVIATION

Chapter I—Civil Aeronautics Board

Subchapter A—Civil Air Regulations

PART 35—FLIGHT ENGINEER CERTIFICATES

REVISION OF PART

Because of the number of outstanding amendments to Part 35, it has been decided to issue a revision of this part, incorporating all amendments thereto in effect on November 1, 1954. The revision also eliminates former § 35.20, which governed the termination of flight engineer certificates issued prior to September 27, 1950 to non-U. S. citizens. Since all such certificates have now expired, the section is without present effect.

By the Civil Aeronautics Board.

[SEAL] M. C. MULLIGAN,
Secretary.

REQUIREMENTS FOR CERTIFICATE

Sec.
35.1 Issuance.
35.2 Age.
35.3 Citizenship.
35.4 Education.
35.5 Physical standards.
35.6 Experience.
35.7 Knowledge.
35.8 Skill.
35.9 Limited certificate.

CERTIFICATION RULES

35.10 Application.
35.11 Duration.
35.12 Temporary certificates.
35.14 Reexamination after failure.
35.15 Certificate.
35.16 Medical certificate and renewal.
35.17 Certificate display.
35.18 Operation during physical deficiency.
35.19 Change of address.
35.20 Identification.

DEFINITIONS

35.30 Definitions.
35.31 Flight time.
35.32 Pilot in command.

AUTHORITY: §§ 35.1 to 35.32 issued under sec. 205, 52 Stat. 984; 49 U. S. C. 425. Interpret or apply secs. 601, 602, 52 Stat. 1007, as amended, 1008; 49 U. S. C. 551, 552.

REQUIREMENTS FOR CERTIFICATE

§ 35.1 *Issuance.* A flight engineer certificate will be issued to an applicant who meets the requirements of §§ 35.2–35.9.

§ 35.2 *Age.* Applicant shall be at least 21 years of age.

§ 35.3 *Citizenship.* An applicant for a flight engineer certificate may be a citizen of any country or a person without nationality.

§ 35.4 *Education.* Applicant shall be able to read, write, speak, and understand the English language.

§ 35.5 *Physical standards.* Applicant shall meet the physical standards of the second class as prescribed in Part 29 of this subchapter: *Provided,* That an applicant who is unable to distinguish aviation signal red, aviation signal green, and white shall be issued an airman certificate appropriately endorsed to prohibit the holder thereof from exercising the privileges of such certificate except under such conditions, or with the use of such equipment, which would not require the ability to distinguish such aviation signal colors.

§ 35.6 *Experience.* Each applicant for a flight engineer certificate shall:

(a) Have had at least 3 years of diversified practical experience in the maintenance and repair of aircraft and aircraft engines, of which one year shall have been in the maintenance and repair of multiengine aircraft of a type used in air carrier operations and having engines rated at least at 800 horsepower each; or

(b) Be a graduate of at least a two-year specialized aeronautical training course in the maintenance, repair, and overhaul of aircraft and aircraft engines, of which at least six months shall be in the maintenance and repair of multiengine aircraft of a type used in air carrier operations and having engines rated at least at 800 horsepower each; or

(c) Have had at least 100 hours of flight experience in the duties of a flight engineer; or

(d) Have satisfactorily completed a course of ground and flight instruction in at least the items specified in § 35.7 which the Administrator has found adequate for the training of a flight engineer; or

(e) Have had at least 200 hours of flight time as pilot in command of an aircraft having 4 engines or more.

§ 35.7 *Knowledge.* Applicant shall pass a written examination on the following subjects pertaining to aircraft having 4 or more engines and certificated in the transport category or to aircraft having 4 or more engines and incorporating a flight engineer station:

(a) Responsibilities and limitations of a flight engineer as specified in the regulations of this subchapter.

(b) Theory of flight and elementary aerodynamics;

(c) Aircraft performance and aircraft engine operation with respect to limitations;

(d) Mathematical computations of engine operation and fuel consumption, including basic meteorology with respect to engine operations;

(e) Aircraft loading and center of gravity computations;

(f) Basic aircraft maintenance and operating procedures.

§ 35.8 *Skill.* Applicant shall pass a practical test in the duties of a flight engineer during flight on an aircraft having 4 or more engines and certificated in the transport category or on an aircraft having 4 or more engines and incorporating a flight engineer station; and shall demonstrate competency with respect to:

(a) Normal duties and procedures relating to aircraft, aircraft engines, propellers, and appliances;

(b) Recognition of the malfunctioning of aircraft, aircraft engines, propellers, and appliances, and the taking of appropriate action thereon;

(c) Emergency duties and procedures relating to aircraft, aircraft engines, propellers, and appliances.

§ 35.9 *Limited certificate.* (a) An applicant may be certificated as a flight engineer for an aircraft having less than 4 engines: *Provided,* That (1) the design of the aircraft incorporates a flight engineer station satisfactory to the Administrator, (2) the applicant meets the requirements of §§ 35.1 through 35.6, and (3) the applicant passes written and practical examinations respecting such aircraft on the subjects listed in §§ 35.7 and 35.8.

(b) A certificate issued under the provisions of this section shall contain an appropriate limitation which may be removed at such time as the holder of the certificate passes the written and practical tests prescribed in §§ 35.7 and 35.8.

CERTIFICATION RULES

§ 35.10 *Application.* Application shall be made on a form and in the manner prescribed by the Administrator.

§ 35.11 *Duration.* (a) A flight engineer certificate issued to a United States citizen shall remain in effect until surrendered, suspended, revoked, or otherwise terminated by order of the Board. A certificate issued to an applicant other than a United States citizen shall remain in effect for a period no longer than 12 months after the date of issuance, but it may be reissued without further demonstration of technical competence.

(b) After revocation, and upon request after suspension, the certificate shall be returned to the Administrator.

(c) Nothing in this section shall be construed to deny or defeat the jurisdiction of the Federal courts, the Administrator, or the Board to impose any authorized sanction, including revocation of the certificate, for a violation of the act or of the regulations in this subchapter occurring during the effective period of the certificate.

§ 35.12 *Temporary certificates.* The Administrator or his authorized representative may issue a temporary flight engineer certificate for a period of not to exceed 90 days, subject to the terms and conditions specified therein by the Administrator.

§ 35.14 *Reexamination after failure.* An applicant who has failed any prescribed written or practical examination or test may not apply for reexamination within a 30-day period unless he presents a statement signed by a certificated flight engineer, a certificated ground instructor, or an equally qualified individual acceptable to the Administrator, which attests that the applicant has received an additional 5 hours of instruction in each of the subjects failed and that the applicant is considered competent for reexamination.

§ 35.15 *Certificate.* No individual shall serve in the flight crew as a flight engineer unless he has in his personal possession while so serving a valid flight engineer certificate issued by the Administrator.

§ 35.16 *Medical certificate and renewal.* No individual shall exercise the privileges of a flight engineer certificate unless he has in his personal possession while so serving a medical certificate or other evidence satisfactory to the Administrator showing that he has met the physical requirements appropriate to his certificate within the preceding 12 calendar months.

§ 35.17 *Certificate display.* A flight engineer shall, upon request, present his airman and medical certificates for examination by any representative of the Civil Aeronautics Board or Administrator or by any State or local law enforcement officer.

§ 35.18 *Operation during physical deficiency.* No flight engineer shall exercise the privileges of his airman certificate during any period of known physical deficiency or increase in physical deficiency which would render him unable to meet the physical requirements prescribed for the issuance of his currently effective medical certificate.

§ 35.19 *Change of address.* Within 30 days after any change in the permanent mailing address of a holder of a flight engineer certificate, the holder shall notify the Administrator in writing of such change. Such notice shall be mailed to the Administrator of Civil Aeronautics, Attention Airman Records Branch, Washington 25, D. C.

§ 35.20 *Identification.* The holder of a certificate issued under the provisions of this part shall not, except while engaged in operations conducted by a scheduled air carrier, exercise the privileges conferred by the certificate unless he has in his personal possession a current airman identification card or other identification card acceptable to the Administrator which duly describes him. The airman identification card may be obtained from the Administrator who shall prescribe its form and the manner of applying for it.

DEFINITIONS

§ 35.30 *Definitions.* As used in this part the words listed shall be defined as indicated in §§ 35.31 and 35.32.

§ 35.31 *Flight time.* Flight time shall mean the total time from the moment the aircraft first moves under its own power for the purpose of flight until the moment it comes to rest at the end of the flight (block to block).

§ 35.32 *Pilot in command.* Pilot in command shall mean the pilot responsible for the operation and safety of the aircraft during the time defined as flight time.

NOTICE

Inform the Publications Section, Civil Aeronautics Board, Washington 25, D. C., that you have purchased this Part of the Civil Air Regulations and that agency will supply you with copies of amendments which have been issued since this printing. Be sure to specify the number of this part and whether you wish to receive copies of amendments which may be issued in the future.

U. S. GOVERNMENT PRINTING OFFICE: 1954 O — 321320