

and the ratings placed thereon renewed if, at the time of application for renewal, the foreign flight engineer license on which that certificate is based is in effect. Application for the renewal of the certificate and ratings thereon must be made before the expiration of the certificate.

(Sec. 6, 80 Stat. 937, 49 U.S.C. 1655)

[Doc. No. 8846, 33 FR 18614, Dec. 17, 1968, as amended by Amdt. 63-20, 45 FR 5673, Jan. 24, 1980]

#### § 63.43 Flight engineer courses.

An applicant for approval of a flight engineer course must submit a letter to the Administrator requesting approval, and must also submit three copies of each course outline, a description of the facilities and equipment, and a list of the instructors and their qualifications. An air carrier or commercial operator with an approved flight engineer training course under part 121 of this chapter may apply for approval of a training course under this part by letter without submitting the additional information required by this paragraph. Minimum requirements for obtaining approval of a flight engineer course are set forth in appendix C of this part.

### Subpart C—Flight Navigators

AUTHORITY: Secs. 313(a), 314, 601, and 607; 49 U.S.C. 1354(a), 1355, 1421, and 1427.

SOURCE: Docket No. 1179, 27 FR 7970, Aug. 10, 1962, unless otherwise noted.

#### § 63.51 Eligibility requirements; general.

To be eligible for a flight navigator certificate, a person must—

- (a) Be at least 21 years of age;
- (b) Be able to read, write, speak, and understand the English language;
- (c) Hold at least a second-class medical certificate issued under part 67 of this chapter within the 12 months before the date he applies; and
- (d) Comply with §§ 63.53, 63.55, and 63.57.

#### § 63.53 Knowledge requirements.

(a) An applicant for a flight navigator certificate must pass a written test on—

(1) The regulations of this chapter that apply to the duties of a flight navigator;

(2) The fundamentals of flight navigation, including flight planning and cruise control;

(3) Practical meteorology, including analysis of weather maps, weather reports, and weather forecasts; and weather sequence abbreviations, symbols, and nomenclature;

(4) The types of air navigation facilities and procedures in general use;

(5) Calibrating and using air navigation instruments;

(6) Navigation by dead reckoning;

(7) Navigation by celestial means;

(8) Navigation by radio aids;

(9) Pilotage and map reading; and

(10) Interpretation of navigation aid identification signals.

(b) A report of the test is mailed to the applicant. A passing grade is evidence, for a period of 24 months after the test, that the applicant has complied with this section.

[Doc. No. 1179, 27 FR 7970, Aug. 10 1962, as amended by Amdt. 63-19, 43 FR 22639, May 25, 1978]

#### § 63.55 Experience requirements.

(a) An applicant for a flight navigator certificate must be a graduate of a flight navigator course approved by the Administrator or present satisfactory documentary evidence of—

(1) Satisfactory determination of his position in flight at least 25 times by night by celestial observations and at least 25 times by day by celestial observations in conjunction with other aids; and

(2) At least 200 hours of satisfactory flight navigation including celestial and radio navigation and dead reckoning.

A pilot who has logged 500 hours of cross-country flight time, of which at least 100 hours were at night, may be credited with not more than 100 hours for the purposes of paragraph (a)(2) of this section.

(b) Flight time used exclusively for practicing long-range navigation methods, with emphasis on celestial navigation and dead reckoning, is considered to be satisfactory navigation experience for the purposes of paragraph (a)