

(3) In flight, in an airplane simulator, or in an approved flight engineer training device, show that he can satisfactorily perform emergency duties and procedures and recognize and take appropriate action for malfunctions of the airplane, engines, propellers (if appropriate), systems and appliances.

**§ 63.41 Retesting after failure.**

An applicant for a flight engineer certificate who fails a written test or practical test for that certificate may apply for retesting—

(a) After 30 days after the date he failed that test; or

(b) After he has received additional practice or instruction (flight, synthetic trainer, or ground training, or any combination thereof) that is necessary, in the opinion of the Administrator or the applicant's instructor (if the Administrator has authorized him to determine the additional instruction necessary) to prepare the applicant for retesting.

**§ 63.42 Flight engineer certificate issued on basis of a foreign flight engineer license.**

(a) *Certificates issued.* The holder of a current foreign flight engineer license issued by a contracting State to the Convention on International Civil Aviation, who meets the requirements of this section, may have a flight engineer certificate issued to him for the operation of civil aircraft of U.S. registry. Each flight engineer certificate issued under this section specifies the number and State of issuance of the foreign flight engineer license on which it is based. If the holder of the certificate cannot read, speak, or understand the English language, the Administrator may place any limitation on the certificate that he considers necessary for safety.

(b) *Medical standards and certification.* An applicant must submit evidence that he currently meets the medical standards for the foreign flight engineer license on which the application for a certificate under this section is based. A current medical certificate issued under part 67 of this chapter will be excepted as evidence that the applicant meets those standards. However, a medical certificate issued under part 67

of this chapter is not evidence that the applicant meets those standards outside the United States unless the State that issued the applicant's foreign flight engineer license also accepts that medical certificate as evidence of the applicant's physical fitness for his foreign flight engineer license.

(c) *Ratings issued.* Aircraft class ratings listed on the applicant's foreign flight engineer license, in addition to any issued to him after testing under the provisions of this part, are placed on the applicant's flight engineer certificate. An applicant without an aircraft class rating on his foreign flight engineer license may be issued a class rating if he shows that he currently meets the requirements for exercising the privileges of his foreign flight engineer license on that class of aircraft.

(d) *Privileges and limitations.* The holder of a flight engineer certificate issued under this section may act as a flight engineer of a civil aircraft of U.S. registry subject to the limitations of this part and any additional limitations placed on his certificate by the Administrator. He is subject to these limitations while he is acting as a flight engineer of the aircraft within or outside the United States. However, he may not act as flight engineer or in any other capacity as a required flight crewmember, of a civil aircraft of U.S. registry that is carrying persons or property for compensation or hire.

(e) *Renewal of certificate and ratings.* The holder of a certificate issued under this section may have that certificate 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

## § 63.51

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

## 14 CFR Ch. I (1–1–10 Edition)

(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) of this section. It must be substantiated by a logbook, by records of an armed force or a certificated air carrier, or by a letter signed by a certificated flight navigator and attached to the application.

#### § 63.57 Skill requirements.

(a) An applicant for a flight navigator certificate must pass a practical test in navigating aircraft by—

- (1) Dead reckoning;
- (2) Celestial means; and
- (3) Radio aids to navigation.

(b) An applicant must pass the written test prescribed by § 63.53 before taking the test under this section. However, if a delay in taking the test under this section would inconvenience the applicant or an air carrier, he may