

§ 121.159

§ 121.159 Single-engine airplanes prohibited.

No certificate holder may operate a single-engine airplane under this part.

[Doc. No. 28154, 60 FR 65927, Dec. 20, 1995]

§ 121.161 Airplane limitations: Type of route.

(a) Unless authorized by the Administrator, based on the character of the terrain, the kind of operation, or the performance of the airplane to be used, no certificate holder may operate two-engine or three-engine airplanes (except a three-engine turbine powered airplane) over a route that contains a point farther than 1 hour flying time (in still air at normal cruising speed with one engine inoperative) from an adequate airport.

(b) Except as provided in paragraph (c) of this section, no certificate holder may operate a land airplane (other than a DC-3, C-46, CV-240, CV-340, CV-440, CV-580, CV-600, CV-640, or Martin 404) in an extended overwater operation unless it is certificated or approved as adequate for ditching under the ditching provisions of part 25 of this chapter.

(c) Until December 20, 2010, a certificate holder may operate, in an extended overwater operation, a non-transport category land airplane type certificated after December 31, 1964, that was not certificated or approved as adequate for ditching under the ditching provisions of part 25 of this chapter.

[Doc. No. 7329, 31 FR 13078, Oct. 8, 1966 as amended by Amdt. 121-162, 45 FR 46739, July 10, 1980; Amdt. 121-251, 60 FR 65927, Dec. 20, 1995]

§ 121.163 Aircraft proving tests.

(a) *Initial airplane proving tests.* No person may operate an airplane not before proven for use in a kind of operation under this part or part 135 of this chapter unless an airplane of that type has had, in addition to the airplane certification tests, at least 100 hours of proving tests acceptable to the Administrator, including a representative number of flights into en route airports. The requirement for at least 100 hours of proving tests may be reduced by the Administrator if the Adminis-

14 CFR Ch. I (1-1-05 Edition)

trator determines that a satisfactory level of proficiency has been demonstrated to justify the reduction. At least 10 hours of proving flights must be flown at night; these tests are irreducible.

(b) *Proving tests for kinds of operations.* Unless otherwise authorized by the Administrator, for each type of airplane, a certificate holder must conduct at least 50 hours of proving tests acceptable to the Administrator for each kind of operation it intends to conduct, including a representative number of flights into en route airports.

(c) *Proving tests for materially altered airplanes.* Unless otherwise authorized by the Administrator, for each type of airplane that is materially altered in design, a certificate holder must conduct at least 50 hours of proving tests acceptable to the Administrator for each kind of operation it intends to conduct with that airplane, including a representative number of flights into en route airports.

(d) *Definition of materially altered.* For the purposes of paragraph (c) of this section, a type of airplane is considered to be materially altered in design if the alteration includes—

(1) The installation of powerplants other than those of a type similar to those with which it is certificated; or

(2) Alterations to the aircraft or its components that materially affect flight characteristics.

(e) No certificate holder may carry passengers in an aircraft during proving tests, except for those needed to make the test and those designated by the Administrator. However, it may carry mail, express, or other cargo, when approved.

[Doc. No. 6258, 29 FR 19197, Dec. 31, 1964, as amended by Amdt. 121-42, 33 FR 10330, July 19, 1968; 34 FR 13468, Aug. 21, 1969; Amdt. 121-162, 45 FR 46739, July 10, 1980; Amdt. 121-251, 60 FR 65927, Dec. 20, 1995]

Subpart I—Airplane Performance Operating Limitations

SOURCE: Docket No. 6258, 29 FR 19198, Dec. 31, 1964; 30 FR 130, Jan. 7, 1965, unless otherwise noted.

EDITORIAL NOTE: Nomenclature changes to subpart I appear at 60 FR 65928, Dec. 20, 1995.

§ 121.171 Applicability.

(a) This subpart prescribes airplane performance operating limitations for all certificate holders.

(b) For purposes of this part, *effective length of the runway* for landing means the distance from the point at which the obstruction clearance plane associated with the approach end of the runway intersects the centerline of the runway to the far end thereof.

(c) For the purposes of this subpart, *obstruction clearance plane* means a plane sloping upward from the runway at a slope of 1:20 to the horizontal, and tangent to or clearing all obstructions within a specified area surrounding the runway as shown in a profile view of that area. In the plan view, the centerline of the specified area coincides with the centerline of the runway, beginning at the point where the obstruction clearance plane intersects the centerline of the runway and proceeding to a point at least 1,500 feet from the beginning point. Thereafter the centerline coincides with the takeoff path over the ground for the runway (in the case of takeoffs) or with the instrument approach counterpart (for landings), or, where the applicable one of these paths has not been established, it proceeds consistent with turns of at least 4,000 foot radius until a point is reached beyond which the obstruction clearance plane clears all obstructions. This area extends laterally 200 feet on each side of the centerline at the point where the obstruction clearance plane intersects the runway and continues at this width to the end of the runway; then it increases uniformly to 500 feet on each side of the centerline at a point 1,500 feet from the intersection of the obstruction clearance plane with the runway; thereafter it extends laterally 500 feet on each side of the centerline.

[Doc. No. 6258, 29 FR 19198, Dec. 31, 1964, as amended by Amdt. 121-132, 41 FR 55475, Dec. 20, 1976]

§ 121.173 General.

(a) Except as provided in paragraph (c) of this section, each certificate holder operating a reciprocating-engine-powered airplane shall comply with §§121.175 through 121.187.

(b) Except as provided in paragraph (c) of this section, each certificate holder operating a turbine-engine-powered airplane shall comply with the applicable provisions of §§121.189 through 121.197, except that when it operates—

(1) A turbo-propeller-powered airplane type certificated after August 29, 1959, but previously type certificated with the same number of reciprocating engines, the certificate holder may comply with §§121.175 through 121.187; or

(2) Until December 20, 2010, a turbo-propeller-powered airplane described in §121.157(f), the certificate holder may comply with the applicable performance requirements of appendix K of this part.

(c) Each certificate holder operating a large nontransport category airplane type certificated before January 1, 1965, shall comply with §§121.199 through 121.205 and any determination of compliance must be based only on approved performance data.

(d) The performance data in the Airplane Flight Manual applies in determining compliance with §§121.175 through 121.197. Where conditions are different from those on which the performance data is based, compliance is determined by interpolation or by computing the effects of changes in the specific variables if the results of the interpolation or computations are substantially as accurate as the results of direct tests.

(e) Except as provided in paragraph (c) of this section, no person may take off a reciprocating-engine-powered airplane at a weight that is more than the allowable weight for the runway being used (determined under the runway takeoff limitations of the operating rules of 14 CFR part 121, subpart I) after taking into account the temperature operating correction factors in the applicable Airplane Flight Manual.

(f) The Administrator may authorize in the operations specifications deviations from the requirements in the subpart if special circumstances make a literal observance of a requirement unnecessary for safety.

(g) The ten-mile width specified in §§121.179 through 121.183 may be reduced to five miles, for not more than 20 miles, when operating VFR or where