

VOLUME 3 GENERAL TECHNICAL ADMINISTRATION**CHAPTER 29 PROVING AND VALIDATION TESTS****Section 3 Safety Assurance System: Proving Test Requirements**

3-2331 GENERAL. Each applicant must demonstrate the ability to operate safely by conducting proving tests in accordance with the operating, maintenance, aircraft dispatch, flight release, and flight locating requirements of Title 14 of the Code of Federal Regulations (14 CFR) parts 91K, 121, or 135, as applicable. Applicants must conduct proving tests in a manner that closely simulates the regulatory conditions that will apply after the Federal Aviation Administration (FAA) grants approval. Before an applicant may conduct the flights mentioned below, the test team must be satisfied that the applicant's phase three review has been completed. See Volume 3, Chapter 29, Section 5, Proving and Validation Tests: The Demonstration Phase, paragraph 3-2378 for additional guidance pertaining to proving flights conducted without an operations inspector.

A. Types of Flights. The only types of flights that are acceptable to the Administrator (and can be credited towards proving test requirements) are:

1) Representative En Route Flights. Conduct representative en route flights in compliance with part 91K, 121, or 135 (as applicable) and other rules, including Title 49 of the Code of Federal Regulations (49 CFR) parts 171 and 175 regarding hazardous materials (hazmat), and part 1500 regarding Transportation Security Regulations (TSR).

2) Ferry Flights or Flights of Provisionally Certificated Aircraft. Ferry flights conducted under part 91 and authorized under the provisions of 14 CFR part 21, § 21.197(a)(2) or (5) may be credited towards proving test requirements, provided crewmembers and Initial Cadre Check Airmen (ICCA) have completed applicable proficiency, competency, and type rating checks. Line checks and Operating Experience (OE) may be accomplished on proving flights. In rare situations, an applicant may propose to use a provisionally certificated aircraft during proving flights under part 121. To obtain FAA approval, the applicant must show that no feature, characteristic, or condition of the aircraft would make it unsafe when operated in accordance with part 91, § 91.317 and part 121, § 121.207 (for further information, see paragraph 3-2339).

3) Training Flights. Training flights may be credited toward proving test requirements, provided crewmembers are undergoing training according to the applicant's initially approved flight training curriculum. A qualified operations inspector must observe all training flights for the applicant to receive credit.

4) Positioning Flights. A positioning flight is a flight conducted to move an airplane over a nonrepresentative route, such as from the aircraft factory to the applicant's main base. Notwithstanding other minimum proving flight requirements, positioning flights may be credited toward total proving flight time.

NOTE: Use the policies and procedures applicable to part 121 and 135 applicants contained in this section in conjunction with the Safety Assurance

System (SAS) Certification Process work instructions found in Volume 2, Chapter 3, for part 121 and Chapter 4, for part 135.

B. Additional Requirements. Applicants must conduct flights in accordance with the following, as applicable:

- Part 121 or 135 General Operations Manual (GOM) and General Maintenance Manual (GMM),
- Part 91K Program Operating Manual (POM),
- Part 91K, 121, or 135 inspection or maintenance programs,
- Minimum equipment list (MEL),
- Flight control requirements (dispatch, flight-following, or flight-locating) of part 91K, 121, or 135, and
- Operations and maintenance recordkeeping requirements of part 91K, 121, or 135.

3-2332 SITUATIONS REQUIRING PROVING TESTS. Title 14 CFR parts 91K, 119, 121, and 135 require aircraft proving tests for the following situations:

A. Part 121. An applicant proposing to conduct operations under part 121,

B. Part 135. A part 135 applicant proposes to operate a type of turbojet aircraft or a type of aircraft for which two pilots are required for operations under visual flight rules (VFR),

C. Part 91K. An applicant proposing to conduct operations under part 91K,

D. New Aircraft—Part 121. An applicant proposes to operate an aircraft that the applicant has not been previously authorized to operate (e.g., adding B737-700 to existing B737-300 operation, adding B757-200 to existing B767-300 operation, etc.),

E. New Aircraft—Part 135. An applicant proposes to add additional aircraft to their operations specifications (OpSpecs), either a turbojet aircraft or an aircraft for which two pilots are required for operations under VFR, when the application has not previously been authorized to operate such an aircraft.

F. Altered Aircraft—Part 121. An applicant proposes to use an aircraft that has been materially altered in design,

G. Altered Aircraft—Part 135. An applicant proposes to use an aircraft that has been materially altered in design, and that is either a turbojet aircraft or an aircraft for which two pilots are required for operations under VFR, or

H. Not Authorized by OpSpecs. When an operator applies for a kind of operation not currently authorized by the operator's OpSpecs. For example, an operator may request to transition from supplemental passenger to domestic passenger operations, or from supplemental cargo to supplemental passenger operations.

3-2333 PART 121 APPLICANT PROVING TEST REQUIREMENTS. Requirements for part 121 proving tests (part 119, § 119.33 and part 121, § 121.163) include, but are not limited to:

A. Initial Airplane Proving Tests. For a newly manufactured aircraft, an applicant must conduct a minimum of 100 hours of proving test, if an aircraft of this type has 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 Administrator may reduce the requirement for at least 100 hours of proving tests if the Administrator determines that a satisfactory level of proficiency has been demonstrated to justify the reduction. This requirement applies to either new aircraft manufactured in the United States or to any foreign manufactured aircraft that a U.S. certificate holder has not previously operated. Ten (10) hours must be flown at night.

NOTE: When the night hour requirement is not specified in 14 CFR, this determination is left to the discretion of the test team.

B. Proving Tests for Type of Airplane and Kinds of Operation. For each type of airplane and each kind of operation, an applicant must conduct 50 hours of proving tests. Kinds of operations are:

- Supplemental,
- Domestic, and
- Flag operations.

C. Materially Altered Airplane. Applicants must conduct at least 50 hours of proving tests when the type of aircraft to be used has been materially altered in design. Examples of materially altering an aircraft design include:

- Installation of engines that are a different type from those originally installed on the aircraft for type certification (for example, reciprocating powered engines to turbine powered engines, or low bypass jet engines to high bypass jet engines), or
- Any design alterations that significantly affect flight characteristics, (principal operations inspectors (POI) may contact the appropriate certification directorate).

NOTE: In accordance with § 119.21(a)(3), an applicant for a certificate under part 119 who intends to conduct domestic and/or flag operations under part 121 may be authorized to conduct supplemental operations in accordance with the domestic and/or flag rules of part 121. However, this authorization is limited to supplemental operations being conducted only between the city pairs listed in OpSpec C070. The FAA may grant this authorization by the issuance of OpSpec A030. The FAA will not issue OpSpec A030 to an applicant for a certificate under part 119 who intends to conduct only supplemental operations

under part 121. For more information, refer to Volume 3, Chapter 18, Section 3, Part A Operations Specifications—General.

3-2334 PART 135 APPLICANT PROVING TEST REQUIREMENTS. Requirements for part 135 proving tests (§ 119.33 and part 135, § 135.145) include, but are not limited to:

A. Non-Turbojet Requirements. For two-pilot operations under VFR, an applicant must conduct a minimum of 25 hours of proving tests if the applicant has not previously proven such an aircraft in part 135 operations.

B. Turbojet Requirements. A minimum of 25 hours is required if the applicant has not previously proven a turbojet airplane under part 135 operations.

C. All Aircraft. A minimum of 5 hours of night-flying time (if applicable), 5 instrument approach procedures (IAP) (simulated or actual) (if applicable), and entry into representative number of en route airports (determined by the Administrator) are required.

NOTE: Deviations from the minimum 25 hours of proving tests under § 135.145(a) or 135.145(b) may be authorized under § 135.145(g). These reduced tests meet the regulatory requirement for an applicant who has previously proved such an aircraft or has proved a turbojet aircraft in at least 25 hours of proving tests acceptable to the Administrator.

3-2335 PART 91K APPLICANT PROVING TEST REQUIREMENTS. Refer to Volume 3, Chapter 29, Section 1, General Information, Table 3-107, Proving and Validation Testing Table. Requirements for part 91K proving tests (§ 91.1041) include, but are not limited to:

A. Non-Turbojet Requirements. For two-pilot operations under VFR, the applicant must conduct a minimum of 25 hours of proving tests if the applicant has not previously proven such an aircraft in part 91K operations.

B. Turbojet Requirements. A minimum of 25 hours is required if the applicant has not previously proven a turbojet aircraft under part 91K operations.

C. All Aircraft. A minimum of 5 hours of night-flying time (if applicable), 5 IAP (simulated or actual) (if applicable), and entry into representative number of en route airports (determined by the Administrator) are required.

3-2336 DEVIATIONS TO PROVING TEST REQUIREMENTS. Sections 91.1041, 121.163, and 135.145 authorize the FAA to grant deviations to proving test requirements based on experience and/or performance factors. The applicant must comply with all other proving test requirements. See Volume 3, Chapter 29, Section 7, Request for Deviation of Proving Test Hours, for further direction and guidance for processing requests from applicants concerning reductions in proving test hours.

3-2337 REPRESENTATIVE NUMBER OF FLIGHTS INTO AIRPORTS.

Sections 91.1041, 121.163, and 135.145 require an applicant to conduct a representative number

of proving flights into en route airports. These are airports that the applicant plans to use in scheduled operations or is likely to use in nonscheduled operations.

A. Airport Locations. Representative airports must be within the applicant's proposed areas of en route operations. If an applicant plans to conduct overseas and/or international operations, the applicant must conduct proving flights into domestic, overseas, and/or international areas.

B. Determining Representative Airports. The FAA test team must determine what constitutes a representative airport or area of en route operation (and the number of representative airports and areas). This determination should include a consideration of factors pertinent to the proposed type of operation. Some of these factors are the same as those considered when approving a reduction to the proving test hours. These considerations are discussed in Volume 3, Chapter 29, Section 7.

3-2338 CARRIAGE OF PASSENGERS AND/OR CARGO. See also Volume 3, Chapter 29, Section 8, Validation Test Requirements, Tables 3-110 through 3-115 for more information.

A. Carriage of Revenue Passengers. The carriage of revenue passengers on proving flights is prohibited by §§ 91.1041(c), 121.163(e), and 135.145(c).

B. Carriage of Revenue Cargo. The carriage of revenue cargo may be approved (per § 121.163(e)) for a part 121 applicant that has appropriate Department of Transportation (DOT) economic authority to carry revenue cargo. Appropriate DOT economic authority would be, at a minimum, a Show Cause Order or the pending issuance of a Show Cause Order. Applicants seeking FAA certification that do not have appropriate DOT economic authority are not permitted to carry revenue cargo; however, the carriage of company or simulated cargo is encouraged. It is FAA policy to encourage the carriage of cargo on representative en route proving flights, when possible, since the carriage of cargo allows for a more comprehensive test of the applicant's capabilities.

NOTE: Carriage of revenue cargo during proving flights to or from foreign countries may only be conducted if there is an "Open Skies" agreement with that foreign country and the applicant has (1) U.S. economic authority and (2) a letter of authorization (LOA) from the FAA. Contact the DOT Air Carrier Fitness Division at <http://www.dot.gov/> to determine if a foreign country has an "Open Skies" agreement with the United States and the status of the applicant's economic authority.

3-2339 PROVISIONALLY CERTIFICATED AIRCRAFT (§ 121.207). Provisionally certificated aircraft are aircraft in the process of either receiving a type certificate (TC) or an amendment to an existing TC. The use of provisionally certificated aircraft involves extensive coordination between the regional Flight Standards division (RFS) involved, FAA headquarters (HQ) in Washington, D.C., and the appropriate certification directorate. Each proposal is uniquely processed and is beyond the scope of this order. Each inspector approached by a manufacturer or applicant for approval to use a provisionally certificated aircraft during proving

flights should forward the request to the Air Transportation Division (AFS-200) and an information copy to the Aircraft Maintenance Division (AFS-300).

NOTE: Part 91K and part 135 do not contain an authorization to use provisionally certificated aircraft for proving flights.

RESERVED. Paragraphs 3-2340 through 3-2355.