

SUBCHAPTER L—OTHER SPECIAL FEDERAL AVIATION REGULATIONS

PART 194—SPECIAL FEDERAL AVIATION REGULATION NO. 120—POWERED-LIFT: PILOT CERTIFICATION AND TRAINING; OPERATIONS REQUIREMENTS

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Subpart A—General

§ 194.101 Applicability.

(a) The Special Federal Aviation Regulation (SFAR) in this part prescribes:

(1) Certain requirements that may be satisfied in lieu of the requirements of part 61 of this chapter for persons seeking a powered-lift pilot certificate and rating, the conditions under which those certificates and ratings are necessary, and the privileges and limitations of those certificates and ratings;

(2) The general operating rules applicable to all persons operating powered-lift, including those an operator must meet to conduct powered-lift operations under parts 91, 135, and 136 of this chapter;

(3) The requirements for persons conducting training, testing, and checking utilizing a powered-lift or flight simulation training device (FSTD) representing a powered-lift under parts 135, 141, and 142 of this chapter; and

(4) The requirements for persons conducting maintenance, preventative maintenance, rebuilds, alterations, or inspections on powered-lift pursuant to part 43 of this chapter.

(b) In addition to the requirements in this part, the following parts continue to apply to those persons described in paragraph (a) of this section unless otherwise specified in this part: parts 43, 60, 61, 91, 97, 135, 136, 141, and 142 of this chapter.

§ 194.103 Definitions.

For the purpose of this part:

Aviation Safety Inspector means a pilot employed by the FAA to conduct operations of a powered-lift for the purpose of establishing a type rating in that particular powered-lift under part 21 of this chapter, as appropriate.

Extended over-water operation means a powered-lift operation over water at a horizontal distance of more than 50 nautical miles from the nearest shoreline and more than 50 nautical miles from an off-shore heliport structure under part 91 or 135 of this chapter.

FAA test pilot means a pilot employed by the FAA to conduct operations of a powered-lift for the purpose of FAA examination or inspection of a type design for which an application for type

certification has been submitted under part 21 of this chapter.

Heliport means an area of land, water, or structure used or intended to be used for the landing and takeoff of helicopters and powered-lift.

Instructor pilot means a pilot employed or used by a manufacturer of a powered-lift to conduct operations of the powered-lift for the purpose of developing a proposed training curriculum and providing crew training.

Manufacturer means any person who holds, or is an applicant for, a type or production certificate for an aircraft. An amateur builder under § 21.191(g) of this chapter, builder of a kit aircraft under § 21.191(h) of this chapter, or the holder of a restricted category type certificate are not considered manufacturers for the purpose of this part.

Test pilot means a pilot employed or used by a manufacturer of a powered-lift to conduct operations of the powered-lift for the purpose of research and development and showing compliance with this chapter.

Vertical-lift flight mode means a mode of flight where a powered-lift:

(1) Is in a configuration that allows vertical takeoff, vertical landing, and low-speed flight; and

(2) Depends principally on engine-driven lift devices or engine thrust for lift.

Wing-borne flight mode means a mode of flight where a powered-lift is not operating in the vertical-lift flight mode as defined and depends exclusively or partially on nonrotating airfoil(s) for lift during takeoff, landing, or horizontal flight.

§ 194.105 Qualification of powered-lift FSTDs.

(a) For flight simulation training devices (FSTDs) representing powered-lift for which qualification standards have not been issued under part 60 of this chapter, the applicable requirements will be the portions of the flight simulation training device qualification performance standards contained in appendices A through D to part 60 of this chapter that are found by the Administrator to be appropriate for the powered-lift and applicable to a specific type design, or such FSTD qualification criteria as the Administrator

may find provide an equivalent level of safety to those FSTD qualification standards.

(b) Proposed qualification performance standards as set forth by paragraph (a) of this section will be published in the FEDERAL REGISTER for comment, except when the FAA considers public notice to be unnecessary because previous opportunities to comment on substantially identical proposed qualification performance standards have been provided. In these instances, FAA will provide personal notice and opportunity for comment.

§ 194.107 Expiration.

This part, consisting of Special Federal Aviation Regulation (SFAR) No. 120, will remain in effect until January 21, 2035.

§ 194.109 Incorporation by reference.

Certain material is incorporated by reference into this part with the approval of the Director of the Federal Register under 5 U.S.C. 552(a) and 1 CFR part 51. All approved incorporation by reference (IBR) material is available for inspection at the FAA and at the National Archives and Records Administration (NARA). Contact the FAA's Office of Rulemaking, 800 Independence Avenue SW, Washington, DC 20590; phone: (202) 267-9677. For information on the availability of this material at NARA, visit www.archives.gov/federal-register/cfr/ibr-locations.html or email fr.inspection@nara.gov. The material may be obtained from the sources in the following paragraphs:

(a) RTCA, Inc., 1150 18th St. NW, Suite 910, Washington, DC 20036; phone: (202) 833-9339; website: www.rtca.org/products.

(1) Section 2 of RTCA DO-309, Minimum Operational Performance Standards (MOPS) for Helicopter Terrain Awareness and Warning System (HTAWS) Airborne Equipment (Mar. 13, 2008); into §§ 194.302; 194.306.

(2) [Reserved]

(b) U.S. Department of Transportation, Subsequent Distribution Office, DOT Warehouse M30, Ardmore East Business Center, 3341 Q 75th Avenue, Landover, MD 20785; phone (301) 322-5377; website: www.faa.gov/aircraft/air_cert/design_approvals/tso/ (select

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the link “Search Technical Standard Orders”).

(1) TSO-C194, Technical Standard Order: Helicopter Terrain Awareness and Warning System, effective Dec. 17, 2008; into §§ 194.302; 194.306.

(2) [Reserved]

Subpart B—Certification, Training, and Qualification Requirements for Pilots and Flight Instructors

§ 194.201 Alternate definition of cross-country time.

Notwithstanding the cross-country time definitions in § 61.1(b) of this chapter, a person may log flight time in a powered-lift as cross-country time provided the time was acquired during a flight—

(a) That includes a point of landing that was at least a straight-line distance of more than 25 nautical miles from the original point of departure; and

(b) That involves the use of dead reckoning, pilotage, electronic navigation aids, radio aids, or other navigation systems to navigate to the landing point.

§ 194.203 Alternate qualification requirements for certain flight instructors.

(a) *Instructor pilots at a manufacturer.* In addition to the provisions specified in § 61.3(d)(3) of this chapter, a flight instructor certificate issued under part 61 of this chapter is not necessary to conduct flight training if the training is given by an instructor pilot in a powered-lift at the manufacturer, provided the training is conducted in accordance with the manufacturer’s training curriculum and is given to either—

(1) A test pilot;

(2) A person authorized by the Administrator to serve as an initial check pilot, chief instructor, assistant chief instructor, or training center evaluator for the purpose of initiating training in a powered-lift under an approved training program under part 135, 141, or 142 of this chapter, as appropriate; or

(3) An FAA test pilot or aviation safety inspector.

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(b) *Flight instructors under part 135 of this chapter.* Notwithstanding the requirement in § 61.3(d)(3)(ii) of this chapter, a person must hold a flight instructor certificate with the appropriate powered-lift ratings to conduct training in accordance with a training curriculum approved to meet the requirements of § 194.243(a)(1).

§ 194.205 Limitations on flight training privileges for holders of airline transport pilot certificates under a part 135 of this chapter approved training program.

Notwithstanding the privileges in § 61.167(a)(2) of this chapter, a person who holds an airline transport pilot certificate with powered-lift ratings must hold a flight instructor certificate with the appropriate powered-lift ratings to instruct pilots in accordance with a training curriculum approved to meet the requirements of § 194.243(a)(1).

§ 194.207 Alternate requirement for practical tests and training in a powered-lift.

(a) *Required equipment for the practical test.* Notwithstanding the equipment requirement in § 61.45(b)(1)(ii) of this chapter and the limitation specified in § 61.45(b)(2) of this chapter, an applicant for a certificate or rating may use a powered-lift that is precluded from performing all of the tasks required for the practical test without receiving a limitation on the applicant’s certificate or rating, as appropriate.

(b) *Waiver authority for a practical test conducted in a powered-lift.* An Examiner who conducts a practical test in a powered-lift may waive any task for which the FAA has provided waiver authority.

(c) *Flight training on waived tasks.* Notwithstanding the requirements in §§ 61.107(a) and 61.127(a) of this chapter for training to include the areas of operation listed in § 61.107(b)(5) or § 61.127(b)(5) of this chapter, as applicable, an applicant seeking a private pilot certificate or commercial pilot certificate with a powered-lift category rating concurrently with a powered-lift type rating is not required to receive and log flight training on a task specified in an area of operation if the powered-lift is not capable of performing the task, provided the FAA has issued

waiver authority for that task in accordance with paragraph (b) of this section.

§ 194.209 Additional qualification requirements for certain pilots serving as second-in-command.

(a) A person who obtains at least a private pilot certificate with a powered-lift category rating by satisfactorily completing the practical test in a powered-lift that is precluded from performing each task required by § 61.43(a)(1) of this chapter may not serve as second-in-command of a powered-lift that is capable of performing the tasks that were waived on the person's practical test until the person has—

(1) Received and logged ground and flight training from an authorized instructor on the specific tasks that were waived on the person's practical test; and

(2) Received a logbook or training record endorsement from an authorized instructor certifying the person has satisfactorily demonstrated proficiency of those tasks.

(b) The training and endorsement required by paragraph (a) of this section are not required if, prior to serving as second-in-command, a person meets one of the following requirements—

(1) Successfully completes the practical test for a powered-lift type rating, and the practical test includes each task required by § 61.43(a)(1) of this chapter; or

(2) Has received ground and flight training under an approved training program and has satisfactorily completed a competency check under § 135.293 or § 91.1065 of this chapter in a powered-lift, and the approved training and checking include each task that was previously waived in accordance with § 194.207(b).

(c) An applicant receiving flight training under § 194.221, § 194.223, § 194.229, or § 194.231 may serve as second-in-command in a powered-lift type certificated for more than one required pilot flight crewmember without meeting the requirements of § 61.55(a)(1), (a)(2), and (b)(2) of this chapter.

§ 194.211 Alternate eligibility requirements for a person seeking a powered-lift type rating.

(a) *General applicability.* The requirements specified in paragraphs (b) and (c) of this section apply only to persons seeking a type rating in a powered-lift that is capable of performing instrument maneuvers and procedures.

(b) *Obtaining an initial powered-lift type rating without concurrently obtaining the instrument-powered-lift rating.* (1) Notwithstanding the requirement to hold or concurrently obtain an appropriate instrument rating in § 61.63(d)(1) of this chapter, a person who applies for an initial powered-lift type rating to be completed concurrently with a powered-lift category rating may apply for the type rating without holding or concurrently obtaining a powered-lift instrument rating, but the type rating will be limited to “visual flight rules (VFR) only.”

(2) Notwithstanding the requirement in § 61.63(d)(4) of this chapter, a person who applies for a powered-lift type rating pursuant to paragraph (b)(1) of this section is not required to perform the type rating practical test in actual or simulated instrument conditions.

(3) Except as specified in paragraph (b)(6) of this section, a person who obtains a powered-lift type rating with a “VFR only” limitation pursuant to paragraph (b)(1) of this section must remove the limitation in accordance with paragraph (b)(4) of this section within 2 calendar months from the month in which the person passes the type rating practical test.

(4) The “VFR only” limitation may be removed after the person—

(i) Passes an instrument rating practical test in a powered-lift in actual or simulated instrument conditions; and

(ii) Passes a practical test in the powered-lift type for which the “VFR only” limitation applies on the appropriate areas of operation listed in § 61.157(e)(3) of this chapter that consist of performing instrument maneuvers and procedures in actual or simulated instrument conditions.

(5) Except as specified in paragraph (b)(6) of this section, if a person who obtains a powered-lift type rating with a “VFR only” limitation pursuant to paragraph (b)(1) of this section does not

remove the limitation within 2 calendar months from the month in which the person completed the type rating practical test, the powered-lift type rating for which the “VFR only” limitation applies will become invalid for use until the person removes the limitation in accordance with paragraph (b)(4) of this section.

(6) A person holding a private pilot certificate is not required to remove the “VFR only” limitation if the limitation applies to a powered-lift type that is not a large aircraft or turbojet-powered.

(c) *Obtaining an additional powered-lift type rating with a “VFR Only” limitation.* (1) Notwithstanding the requirement to hold or concurrently obtain an appropriate instrument rating in § 61.63(d)(1) of this chapter, a person holding a private pilot certificate may apply for a powered-lift type rating for a powered-lift that is not a large aircraft or turbojet-powered without holding or concurrently obtaining a powered-lift instrument rating, but the type rating will be limited to “VFR only.”

(2) Notwithstanding the requirement in § 61.63(d)(4) of this chapter, a person who applies for a powered-lift type rating pursuant to paragraph (c)(1) of this section is not required to perform the type rating practical test in actual or simulated instrument conditions.

(3) A person who obtains a powered-lift type rating with a “VFR only” limitation pursuant to paragraph (c)(1) of this section may remove the “VFR only” limitation for that powered-lift type as specified in paragraph (b)(4) of this section.

(d) *Concurrent practical tests for removal of “VFR only” limitation.* If a task required for the practical test specified in paragraph (b)(4)(i) of this section overlaps with a task required for the practical test specified in paragraph (b)(4)(ii) of this section, a person may perform the task a single time provided the task is performed to the highest standard required for the task.

§ 194.213 Alternate endorsement requirements for certain persons seeking a powered-lift rating.

(a) Notwithstanding the requirements in part 61 of this chapter for an

authorized instructor to provide endorsements for certificates and ratings, including endorsements for solo flight, the following persons may provide the required logbook or training record endorsements under part 61 of this chapter and this part for a commercial pilot certificate with a powered-lift category rating, an instrument-powered-lift rating, a powered-lift type rating, or a flight instructor certificate with powered-lift ratings—

(1) An instructor pilot, provided the applicant is either—

(i) A test pilot or instructor pilot for the manufacturer seeking type certification of an experimental powered-lift;

(ii) A person authorized by the Administrator to serve as an initial check pilot, chief instructor, assistant chief instructor, or training center evaluator for the purpose of initiating training in a powered-lift under an approved training program under part 135, 141, or 142 of this chapter, as appropriate; or

(iii) An FAA test pilot or aviation safety inspector; or

(2) A management official within the manufacturer’s organization, provided the applicant is an instructor pilot for the manufacturer of an experimental powered-lift.

(b) The endorsements for training time under this section must include a description of the training given, length of training lesson, and the endorsement provider’s signature and identifying information, including certificate number and expiration date, if applicable.

§ 194.215 Applicability of alternate aeronautical experience and logging requirements for commercial pilot certification and a powered-lift instrument rating.

(a) The alternate requirements set forth in §§ 194.216 through 194.231 apply only to persons who hold at least a commercial pilot certificate with the following ratings:

(1) An airplane category rating with a single-engine or multi-engine class rating and an instrument-airplane rating; or

(2) A rotorcraft category rating with a helicopter class rating and an instrument-helicopter rating.

(b) If no alternate aeronautical experience or logging requirement is provided under this part, the person must meet the applicable requirements under part 61 of this chapter, as appropriate.

§ 194.216 Alternate aeronautical experience: Pilot-in-command flight time in a powered-lift for a commercial pilot certificate with a powered-lift category rating.

(a) *Pilot-in-command flight time in a powered-lift.* Notwithstanding the eligibility requirement specified in § 61.123(f) of this chapter, an applicant for a commercial pilot certificate with a powered-lift category rating under § 194.217, § 194.219, § 194.221, or § 194.223 may log 35 hours of pilot-in-command flight time in a powered-lift in lieu of the aeronautical experience requirement of § 61.129(e)(2)(i) of this chapter.

(b) *Use of full flight simulators.* In addition to the permitted credit for use of a full flight simulator in § 61.129(i) of this chapter, an applicant for a commercial pilot certificate with a powered-lift category rating may credit a maximum of 15 hours toward the 35 hours of pilot-in-command flight time requirement in paragraph (a) of this section, provided—

(1) The aeronautical experience was obtained performing the duties of pilot-in-command in a Level C or higher full flight simulator that represents the powered-lift category; and

(2) The full flight simulator sessions are conducted in accordance with:

(i) For test pilots, instructor pilots, FAA test pilots, or FAA aviation safety inspectors under § 194.217 or § 194.219, as applicable, the manufacturer's proposed training curriculum;

(ii) For the initial cadre of instructors under § 194.221, the manufacturer's training curriculum; or

(iii) For pilots under § 194.223, an approved training program under part 135, 141, or 142 of this chapter.

§ 194.217 Test pilots, FAA test pilots, or aviation safety inspectors: Alternate aeronautical experience and logging requirements for a commercial pilot certificate with a powered-lift category rating.

(a) *General applicability.* An applicant for a commercial pilot certificate with

a powered-lift category rating who is a test pilot for the manufacturer of an experimental powered-lift, an FAA test pilot, or an aviation safety inspector may satisfy the alternate aeronautical experience and logging requirements set forth in paragraphs (b) and (c) of this section, provided—

(1) The flights are conducted in an experimental powered-lift at the manufacturer;

(2) The applicant is authorized by the Administrator to act as pilot in command of the experimental powered-lift.

(b) *Alternate aeronautical experience requirements.* Notwithstanding the eligibility requirement specified in § 61.123(f) of this chapter, a test pilot, FAA test pilot, or aviation safety inspector may meet the requirements in paragraphs (b)(1) through (4) of this section in lieu of the aeronautical experience requirements of § 61.129(e)(3) and (4) of this chapter.

(1) A test pilot, FAA test pilot, or aviation safety inspector may receive 20 hours of flight training on the areas of operation listed in § 61.127(b)(5) of this chapter from an instructor pilot for the manufacturer of an experimental powered-lift in lieu of an authorized instructor, provided—

(i) The training is conducted in accordance with the manufacturer's proposed training curriculum in the experimental powered-lift; and

(ii) The test pilot, FAA test pilot, or aviation safety inspector receives a logbook or training record endorsement from the instructor pilot certifying that the test pilot satisfactorily completed the training curriculum specified in paragraph (b)(1)(i) of this section.

(2) A test pilot, FAA test pilot, or aviation safety inspector may accomplish the practical test preparation requirements in § 61.129(e)(3)(iv) of this chapter with a pilot who serves as an instructor pilot for the manufacturer of the experimental powered-lift.

(3) A test pilot, FAA test pilot, or aviation safety inspector may satisfy the aeronautical experience requirement in § 61.129(e)(4) of this chapter by logging at least 10 hours of solo flight time under an endorsement from an instructor pilot or performing the duties

of pilot-in-command in an experimental powered-lift with one of the following individuals onboard (which may be credited towards the flight time requirement in §§ 61.129(e)(2), and (e)(2)(ii) of this chapter and 194.216(a))—

(i) A test pilot for the manufacturer of the powered-lift who is authorized by the Administrator to act as pilot-in-command of the experimental powered-lift; or

(ii) An instructor pilot for the manufacturer of the powered-lift who is authorized by the Administrator to act as pilot-in-command of the experimental powered-lift.

(4) A test pilot, FAA test pilot, or aviation safety inspector may satisfy the alternate requirements in § 194.233 in lieu of the cross-country aeronautical experience requirements specified in § 61.129(e)(3)(ii) and (iii) and (e)(4)(i) of this chapter.

(c) *Alternate logging requirement.* Notwithstanding the logging requirements in § 61.51(e)(1) of this chapter, an applicant for a commercial pilot certificate with a powered-lift category rating may log pilot-in-command flight time for the purpose of satisfying the aeronautical experience requirements in §§ 61.129(e)(2)(ii) and 194.216(a) of this chapter for flights when the pilot is the sole manipulator of the controls of an experimental powered-lift for which the pilot is not rated, provided—

(1) The test pilot, FAA test pilot, or aviation safety inspector is acting as pilot-in-command of the experimental powered-lift in accordance with a letter of authorization issued by the Administrator; and

(2) The flight is conducted for the purpose of research and development or showing compliance with the regulations in this chapter in accordance with the experimental certificate issued to the powered-lift pursuant to § 21.191 of this chapter.

§ 194.219 Instructor pilots: Alternate aeronautical experience and logging requirements for a commercial pilot certificate with a powered-lift category rating.

(a) *General applicability.* An applicant for a commercial pilot certificate with a powered-lift category rating who is an instructor pilot for the manufacturer of an experimental powered-lift

may satisfy the alternate aeronautical experience and logging requirements set forth in paragraphs (b) and (c) of this section, provided—

(1) The flights are conducted in an experimental powered-lift at the manufacturer; and

(2) The applicant is authorized by the Administrator to act as pilot-in-command of the experimental powered-lift.

(b) *Alternate aeronautical experience requirements.* Notwithstanding the eligibility requirement specified in § 61.123(f) of this chapter, an instructor pilot may meet the requirements in paragraphs (b)(1) through (4) of this section in lieu of the aeronautical experience requirements of § 61.129(e)(3) and (4) of this chapter.

(1) An instructor pilot may meet the requirements of paragraphs (b)(1)(i) and (ii) of this section in lieu of the 20 hours of training with an authorized instructor required by § 61.129(e)(3) of this chapter.

(i) The instructor pilot provided the manufacturer's proposed training curriculum to a test pilot, FAA test pilot, or aviation safety inspector in the experimental powered-lift, which includes 20 hours of training on the areas of operation listed in § 61.127(b)(5) of this chapter; and

(ii) The instructor pilot receives a logbook or training record endorsement from a management official within the manufacturer's organization certifying that the instructor pilot provided the training specified in paragraph (b)(1)(i) of this section.

(2) An instructor pilot may accomplish the practical test preparation requirements in § 61.129(e)(3)(iv) of this chapter with a pilot who serves as an instructor pilot for the manufacturer of the experimental powered-lift.

(3) An instructor pilot may satisfy the aeronautical experience requirement in § 61.129(e)(4) of this chapter by logging at least 10 hours of solo flight time under an endorsement from another instructor pilot or performing the duties of pilot-in-command in an experimental powered-lift with one of the following individuals onboard (which may be credited towards the flight time requirement in §§ 61.129(e)(2), and (e)(2)(ii) of this chapter and 194.216(a))—

(i) A test pilot for the manufacturer of the powered-lift who is authorized by the Administrator to act as pilot-in-command of the experimental powered-lift;

(ii) Another instructor pilot for the manufacturer of the powered-lift who is authorized by the Administrator to act as pilot-in-command of the experimental powered-lift; or

(iii) An FAA test pilot or aviation safety inspector.

(4) An instructor pilot may satisfy the alternate requirements in §194.233 in lieu of the cross-country aeronautical experience requirements specified in §61.129(e)(3)(ii) and (iii) and (e)(4)(i) of this chapter.

(c) *Alternate logging requirement.* Notwithstanding the logging requirements in §61.51(e)(3) of this chapter, an applicant for a commercial pilot certificate with a powered-lift category rating may log pilot-in-command flight time for the purpose of satisfying the aeronautical experience requirements in §§61.129(e)(2)(ii) of this chapter and 194.216(a) for flights when the pilot is serving as an instructor pilot for the manufacturer of an experimental powered-lift for which the pilot is not rated, provided—

(1) The pilot is acting as pilot-in-command of the experimental powered-lift in accordance with a letter of authorization issued by the Administrator; and

(2) The flight is conducted for the purpose of crew training in accordance with the experimental certificate issued to the powered-lift pursuant to §21.191 of this chapter.

§ 194.221 Initial cadre of instructors: Alternate aeronautical experience and logging requirements for a commercial pilot certificate with a powered-lift category rating.

(a) *General applicability.* An applicant for a commercial pilot certificate with a powered-lift category rating may satisfy the alternate aeronautical experience and logging requirements set forth in paragraphs (b) and (c) of this section, provided—

(1) The applicant is authorized by the Administrator to serve as an initial check pilot, chief instructor, assistant chief instructor, or training center evaluator for the purpose of initiating

training in a powered-lift under an approved training program under part 135, 141, or 142 of this chapter, as appropriate; and

(2) The flights are conducted in type-certificated powered-lift at the manufacturer.

(b) *Alternate aeronautical experience requirements.* Notwithstanding the eligibility requirement specified in §61.123(f) of this chapter, an applicant may meet the requirements in paragraphs (b)(1) through (4) of this section in lieu of the aeronautical experience requirements of §61.129(e)(3) and (4) of this chapter.

(1) An applicant may receive 20 hours of flight training on the areas of operation listed in §61.127(b)(5) of this chapter from an instructor pilot for the manufacturer of the powered-lift in lieu of an authorized instructor, provided—

(i) The training is conducted in accordance with the manufacturer's training curriculum in the powered-lift; and

(ii) The applicant receives a logbook or training record endorsement from the instructor pilot certifying that the test pilot satisfactorily completed the training curriculum specified in paragraph (b)(1)(i) of this section.

(2) An applicant may accomplish the practical test preparation requirements in §61.129(e)(3)(iv) of this chapter with a pilot who serves as an instructor pilot for the manufacturer of the powered-lift.

(3) An applicant may satisfy the aeronautical experience requirement in §61.129(e)(4) of this chapter by logging at least 10 hours of solo flight time in a powered-lift under an endorsement from an instructor pilot or performing the duties of pilot-in-command in a powered-lift with a person onboard who serves as an instructor pilot for the manufacturer of the powered-lift (which may be credited towards the flight time requirement in §61.129(e)(2) and (e)(2)(ii) of this chapter and 194.216(a)).

(4) An applicant may satisfy the alternate requirements in §194.233 in lieu of the cross-country aeronautical experience requirements specified in §61.129(e)(3)(ii) and (iii) and (e)(4)(i) of this chapter.

(c) *Alternate logging requirements.* Notwithstanding the logging requirements in § 61.51(e)(1) of this chapter, an applicant for a commercial pilot certificate with a powered-lift category rating may log up to 25 hours of pilot-in-command flight time for the purpose of satisfying the aeronautical experience requirements in §§ 61.129(e)(2)(ii) of this chapter and 194.216(a) for flights when the pilot is the sole manipulator of the controls of a powered-lift for which the pilot is not rated, provided—

(1) The applicant is manipulating the controls of the powered-lift with a person onboard who serves as an instructor pilot for the manufacturer;

(2) The applicant is performing the duties of pilot-in-command; and

(3) The flight is conducted in accordance with the manufacturer's training curriculum for the powered-lift.

§ 194.223 Pilots receiving training under an approved training program: Alternate requirements for a commercial pilot certificate with a powered-lift category rating.

(a) *General applicability.* An applicant for a commercial pilot certificate with a powered-lift category rating may satisfy the alternate requirements set forth in paragraphs (b) through (d) of this section, provided the applicant is receiving training under an approved training program under part 135, 141, or 142 of this chapter for the purpose of obtaining a powered-lift category rating.

(b) *Alternate aeronautical experience requirements.* An applicant may satisfy the alternate requirements in § 194.233 in lieu of the cross-country aeronautical experience requirements specified in § 61.129(e)(3)(ii) and (iii) and (e)(4)(i) of this chapter.

(c) *Alternate logging requirement.* Notwithstanding the logging requirements in § 61.51(e)(1) of this chapter, an applicant for a commercial pilot certificate with a powered-lift category rating may log up to 25 hours of pilot-in-command time towards the aeronautical experience requirement in § 194.216(a) for flights when the applicant is the sole manipulator of the controls of a powered-lift for which the pilot is not rated, provided—

(1) The applicant is manipulating the controls of the powered-lift with an authorized instructor onboard;

(2) The applicant is performing the duties of pilot-in-command; and

(3) The flight is conducted in accordance with an approved training program under part 135, 141, or 142 of this chapter.

§ 194.225 Test pilots, FAA test pilots, and aviation safety inspectors: Alternate aeronautical experience and logging requirements for an instrument-powered-lift rating.

(a) *General applicability.* An applicant for an instrument-powered-lift rating who is test pilot for the manufacturer of an experimental powered-lift, an FAA test pilot, or aviation safety inspector may satisfy the alternate aeronautical experience and logging requirements set forth in paragraphs (b) and (c) of this section, provided—

(1) The flights are conducted in an experimental powered-lift at the manufacturer; and

(2) The applicant is authorized by the Administrator to act as pilot-in-command of the experimental powered-lift.

(b) *Alternate aeronautical experience requirements.* A test pilot, FAA test pilot, or aviation safety inspector may meet the aeronautical experience requirements of paragraphs (b)(1) through (4) of this section in lieu of the aeronautical experience requirements of § 61.65(f)(2) of this chapter.

(1) Notwithstanding the eligibility requirement in § 61.65(a)(5) of this chapter, a test pilot, FAA test pilot, or aviation safety inspector may receive 15 hours of instrument training on the areas of operation listed in § 61.65(c) of this chapter from an instructor pilot for the manufacturer of an experimental powered-lift in lieu of an authorized instructor, provided—

(i) The training is conducted in accordance with the manufacturer's proposed training curriculum in the experimental powered-lift; and

(ii) The test pilot, FAA test pilot, or aviation safety inspector receives a logbook or training record endorsement from the instructor pilot certifying that the applicant satisfactorily completed the training curriculum specified in paragraph (b)(1)(i) of this section.

(2) A test pilot, FAA test pilot, or aviation safety inspector may accomplish the practical test preparation requirements in § 61.65(f)(2)(i) of this chapter with an instructor pilot for the manufacturer of the experimental powered-lift.

(3) A test pilot, FAA test pilot, or aviation safety inspector may accomplish the cross-country flight specified in § 61.65(f)(2)(ii) of this chapter for an instrument-powered-lift rating without an authorized instructor, provided the test pilot, FAA test pilot, or aviation safety inspector—

(i) Completes the cross-country flight specified in § 61.65(f)(2)(ii) of this chapter with a pilot who serves as an instructor pilot for the manufacturer of the experimental powered-lift; and

(ii) Obtains a logbook or training record endorsement from the instructor pilot certifying that the person completed the cross-country flight.

(4) A test pilot, FAA test pilot, or aviation safety inspector may satisfy the alternate requirements in § 194.235 in lieu of the cross-country aeronautical experience requirements specified in § 61.65(f)(2)(ii) of this chapter.

(c) *Alternate logging requirement.* Notwithstanding the logging requirements in § 61.51(e)(1) of this chapter, a test pilot, FAA test pilot, or aviation safety inspector may log pilot-in-command flight time for the purpose of satisfying the 10-hour cross-country requirement in § 61.65(f)(1) of this chapter for flights when the pilot is the sole manipulator of the controls of an experimental powered-lift for which the pilot is not rated, provided—

(1) The test pilot, FAA test pilot, or aviation safety inspector is acting as pilot-in-command of the experimental powered-lift in accordance with a letter of authorization issued by the Administrator; and

(2) The flight is conducted for the purpose of research and development or showing compliance with the regulations in this chapter in accordance with the experimental certificate issued to the powered-lift pursuant to § 21.191 of this chapter.

§ 194.227 Instructor pilots: Alternate aeronautical experience and logging requirements for an instrument-powered-lift rating.

(a) *General applicability.* An applicant for an instrument-powered-lift rating who is an instructor pilot for the manufacturer of an experimental powered-lift may satisfy the alternate aeronautical experience and logging requirements set forth in paragraphs (b) and (c) of this section, provided—

(1) The flights are conducted in an experimental powered-lift at the manufacturer; and

(2) The applicant is authorized by the Administrator to act as pilot-in-command of the experimental powered-lift.

(b) *Alternate aeronautical experience requirements.* An instructor pilot may meet the aeronautical experience requirements of paragraphs (b)(1) through (4) of this section in lieu of the aeronautical experience requirements of § 61.65(f)(2) of this chapter.

(1) Notwithstanding the eligibility requirement in § 61.65(a)(5) of this chapter, an instructor pilot may meet the requirements of paragraphs (b)(1)(i) and (ii) of this section in lieu of the 15 hours of training with an authorized instructor required by § 61.65(f)(2) of this chapter.

(i) The instructor pilot provided the manufacturer's proposed training curriculum to a test pilot, FAA test pilot, or aviation safety inspector in the experimental powered-lift, which includes 15 hours of training on the areas of operation listed in § 61.65(c) of this chapter; and

(ii) The instructor pilot receives a logbook or training record endorsement from a management official within the manufacturer's organization certifying that the instructor pilot provided the training specified in paragraph (b)(1)(i) of this section.

(2) An instructor pilot may accomplish the practical test preparation requirements in § 61.65(f)(2)(i) of this chapter with another pilot who serves as an instructor pilot for the manufacturer of the experimental powered-lift.

(3) An instructor pilot may accomplish the cross-country flight specified in § 61.65(f)(2)(ii) of this chapter for an instrument-powered-lift rating without

an authorized instructor, provided the instructor pilot—

(i) Completes the cross-country flight specified in §61.65(f)(2)(ii) of this chapter with another pilot who serves as an instructor pilot for the manufacturer of the experimental powered-lift; and

(ii) Obtains a logbook or training record endorsement from the instructor pilot certifying that the person completed the cross-country flight.

(4) An instructor pilot may satisfy the alternate requirements in §194.235 in lieu of the cross-country aeronautical experience requirements specified in §61.65(f)(2)(ii) of this chapter.

(c) *Alternate logging requirement.* Notwithstanding the logging requirements in §61.51(e)(3) of this chapter, an instructor pilot may log pilot-in-command flight time for the purpose of satisfying the 10-hour cross-country requirement in §61.65(f)(1) of this chapter for flights when the pilot is serving as an instructor pilot for the manufacturer of an experimental powered-lift for which the pilot is not rated, provided the pilot—

(1) Is acting as pilot-in-command of the experimental powered-lift in accordance with a letter of authorization issued by the Administrator; and

(2) The flight is conducted for the purpose of crew training in accordance with the experimental certificate issued to the powered-lift pursuant to §21.191 of this chapter.

§ 194.229 Initial cadre of instructors: Alternate aeronautical experience and logging requirements for an instrument-powered-lift rating.

(a) *General applicability.* An applicant for an instrument-powered-lift rating may satisfy the alternate aeronautical experience and logging requirements set forth in paragraphs (b) and (c) of this section, provided—

(1) The applicant is authorized by the Administrator to serve as an initial check pilot, chief instructor, assistant chief instructor, or training center evaluator for the purpose of initiating training in a powered-lift under an approved training program under part 135, 141, or 142 of this chapter, as appropriate; and

(2) The flights are conducted in type-certificated powered-lift at the manufacturer.

(b) *Alternate aeronautical experience requirements.* Notwithstanding the instrument rating requirements of §61.65 of this chapter, an applicant may meet the requirements in paragraphs (b)(1) through (4) of this section in lieu of the aeronautical experience requirements of §61.65(f)(2) of this chapter.

(1) Notwithstanding the eligibility requirement in §61.65(a)(5) of this chapter, an applicant may receive 15 hours of instrument training on the areas of operation listed in §61.65(c) of this chapter from an instructor pilot for the manufacturer of a powered-lift in lieu of an authorized instructor, provided—

(i) The training is conducted in accordance with the manufacturer's training curriculum in the powered-lift; and

(ii) The applicant receives a logbook or training record endorsement from the instructor pilot certifying that the applicant satisfactorily completed the training curriculum specified in paragraph (b)(1)(i) of this section.

(2) An applicant may accomplish the practical test preparation requirements in §61.65(f)(2)(i) of this chapter with a pilot who serves as an instructor pilot for the manufacturer of the powered-lift.

(3) An applicant may accomplish the cross-country flight specified in §61.65(f)(2)(ii) of this chapter for an instrument-powered-lift rating without an authorized instructor, provided the applicant—

(i) Completes the cross-country flight specified in §61.65(f)(2)(ii) of this chapter with a pilot who serves as an instructor pilot for the manufacturer of the powered-lift; and

(ii) Obtains a logbook or training record endorsement from the instructor pilot certifying that the person completed the cross-country flight.

(4) An applicant may satisfy the alternate requirements in §194.235 in lieu of the cross-country aeronautical experience requirements specified in §61.65(f)(2)(ii) of this chapter.

(c) *Alternate logging requirement.* Notwithstanding the logging requirements in §61.51(e)(1) of this chapter, an applicant for an instrument-powered-lift

rating may log pilot-in-command flight time for the purpose of satisfying the 10-hour cross-country requirement in §61.65(f)(1) of this chapter for flights when the applicant is the sole manipulator of the controls of a powered-lift for which the pilot is not rated, provided—

(1) The applicant is manipulating the controls of the powered-lift with a person onboard who serves as an instructor pilot for the manufacturer;

(2) The applicant is performing the duties of pilot-in-command; and

(3) The flight is conducted in accordance with the manufacturer's training curriculum for the powered-lift.

§ 194.231 Pilots receiving training under an approved training program: Alternate requirements for an instrument-powered-lift rating.

(a) *General applicability.* An applicant for an instrument-powered-lift rating may satisfy the alternate requirements set forth in paragraphs (b) and (c) of this section, provided the applicant is receiving training under an approved training program under part 135, 141, or 142 of this chapter for the purpose of obtaining an instrument-powered-lift rating.

(b) *Alternate aeronautical experience requirements.* An applicant may satisfy the alternate requirements in §194.235 in lieu of the cross-country aeronautical experience requirements specified in §61.65(f)(2)(ii) of this chapter.

(c) *Use of full flight simulators.* In addition to the permitted credit for use of a full flight simulator in §61.65(h) of this chapter, an applicant for an instrument-powered-lift rating may credit a maximum of 4 hours toward the aeronautical experience requirement in §61.65(f)(1) of this chapter that requires 10 hours of cross-country time in a powered-lift, provided—

(1) The aeronautical experience was obtained performing the duties of pilot-in-command during a simulated cross-country flight in a Level C or higher full flight simulator that represents the powered-lift category;

(2) The cross-country flight includes the performance of instrument procedures under simulated instrument conditions; and

(3) The sessions are conducted in accordance with an approved training program under part 135, 141, or 142 of this chapter.

§ 194.233 Alternate means to satisfy the cross-country aeronautical experience requirements for a commercial pilot certificate with a powered-lift category rating.

Notwithstanding the eligibility requirement in §61.123(f) of this chapter, an applicant who does not meet the cross-country aeronautical experience requirements specified in §61.129(e) of this chapter will be considered eligible for a commercial pilot certificate with a powered-lift category rating as specified in paragraphs (a) and (b) of this section.

(a) An applicant who does not meet the cross-country aeronautical experience requirements specified in §61.129(e)(3)(ii) and (iii) of this chapter will be considered eligible for a commercial pilot certificate with a powered-lift category rating, provided the applicant has logged at least three cross-country flights consisting of—

(1) One 2-hour cross-country flight in a powered-lift in daytime conditions that consists of a total straight-line distance of more than 50 nautical miles from the original point of departure;

(2) One 2-hour cross-country flight in a powered-lift in nighttime conditions that consists of a total straight-line distance of more than 50 nautical miles from the original point of departure; and

(3) An additional cross-country flight with landings at a minimum of three points, with one segment consisting of a straight-line distance of at least 50 nautical miles from the original point of departure. Except for the original point of departure, this additional cross-country flight must include landings at different points than the cross-country flights specified in paragraphs (a)(1) and (2) of this section.

(b) An applicant who does not have the cross-country aeronautical experience specified in §61.129(e)(4)(i) of this chapter will be considered eligible for a commercial pilot certificate with a powered-lift category, provided the applicant has logged at least two cross-

country flights with landings at a minimum of three points, with one segment consisting of a straight-line distance of at least 50 nautical miles from the original point of departure. Except for the original point of departure, the second cross-country flight must include landings at different points than the first cross-country flight.

§ 194.235 Alternate means to satisfy the cross-country aeronautical experience requirements for an instrument-powered-lift rating.

(a) An applicant who does not meet the cross-country aeronautical experience requirements specified in § 61.65(f)(2)(ii) of this chapter will be considered eligible for an instrument-powered-lift rating, provided the applicant has logged instrument time that includes instrument flight training on cross-country flight procedures, including two cross-country flights in a powered-lift, provided each cross-country flight—

(1) Is conducted with either an authorized instructor or an instructor pilot; and

(2) Involves—

(i) A flight of 100 nautical miles along airways or by directed routing from an air traffic control facility;

(ii) An instrument approach at each airport; and

(iii) Three different kinds of approaches with the use of navigation systems.

(b) Notwithstanding the requirements in § 61.65(f)(2)(ii) of this chapter for the cross-country flight in a powered-lift, an applicant for an instrument-powered-lift rating is not required to file a flight plan and perform the cross-country flight under instrument flight rules, provided—

(1) The powered-lift is not certificated for instrument flight; and

(2) The applicant holds one of the following—

(i) An instrument-airplane rating;

(ii) An instrument-helicopter rating;

or

(iii) An airline transport pilot certificate.

§ 194.237 Alternate means to satisfy the cross-country aeronautical experience requirements for a private pilot certificate with a powered-lift category rating.

Notwithstanding the eligibility requirement in § 61.103(g) of this chapter, an applicant who does not meet the cross-country aeronautical experience requirements specified in § 61.109(e) of this chapter will be considered eligible for a private pilot certificate with a powered-lift category rating as specified in paragraphs (a) and (b) of this section.

(a) *Cross-country aeronautical experience at night.* An applicant who does not meet the cross-country aeronautical experience specified in § 61.109(e)(2)(i) of this chapter will be considered eligible for a private pilot certificate with a powered-lift category rating, provided the applicant has received 3 hours of night flight training that includes two cross-country flights that are each over 50 nautical miles total distance.

(b) *Solo cross-country aeronautical experience.* An applicant who does not meet the solo cross-country aeronautical experience specified in § 61.109(e)(5)(ii) of this chapter will be considered eligible for a private pilot certificate with a powered-lift category rating, provided the applicant has completed—

(1) One solo cross-country flight of 100 nautical miles total distance, with landings at three points, and one segment of the flight being a straight-line distance of more than 25 nautical miles between the takeoff and landing locations; and

(2) An additional solo cross-country flight in a powered-lift with landings at a minimum of three points, with one segment consisting of a straight-line distance of at least 50 nautical miles from the original point of departure. Except for the original point of departure, the additional cross-country flight must include landings at different points than the first cross-country flight.

§ 194.239 Alternate means to satisfy minimum curriculum content in certain appendices to part 141 of this chapter.

(a) *Flight training minimum curriculum content.* Notwithstanding the minimum curriculum requirements in § 141.55(a) of this chapter, a training course for which approval is requested is not required to consist of training on a task specified in an area of operation listed in the applicable appendix to part 141, provided—

(1) The training course for which approval is requested is for a powered-lift course;

(2) The powered-lift to be used in the course is not capable of performing the task specified in an area of operation listed in the applicable appendix to part 141; and

(3) The FAA has issued waiver authority for that task in accordance with § 194.207(b).

(b) *Cross-country minimum curriculum content.* Notwithstanding the minimum curriculum requirements in § 141.55(a) of this chapter, a training course for which approval is requested is not required to meet the minimum curriculum content specified in appendices B, C, and D to part 141, provided—

(1) The training course for which approval is requested is for a powered-lift course.

(2) The minimum curriculum content that is not met may consist of the training specified in—

(i) Appendix B, paragraph 4.(b)(5)(ii)(A);

(ii) Appendix B, paragraph 5.(e)(1);

(iii) Appendix C, paragraph 4.(c)(3)(ii);

(iv) Appendix D, paragraph 4.(b)(5)(ii) and (iii);

(v) Appendix D, paragraph 5.(e)(2); or

(vi) Appendix M, paragraphs 4.(b)(4)(ii)(A), 4.(b)(4)(iii)(A), and 5.(d)(1).

(3) For each provision of training specified in paragraph (b)(2) of this section that is not met, the training course must include an additional cross-country flight consistent with the requirements of §§ 194.233, 194.235, and 194.237.

§ 194.241 Alternate qualification requirements for chief instructors, assistant chief instructors, and check instructors.

(a) Notwithstanding the qualification requirements in §§ 141.35(a)(1), 141.36(a)(1), and 141.37(a)(2)(ii) of this chapter, for a course of training under part 141 of this chapter that uses a powered-lift, a person seeking designation as a chief instructor, an assistant chief instructor, or a check instructor for checks and tests that relate to flight training must meet the following requirements—

(1) Hold a commercial pilot certificate or an airline transport pilot certificate with the following ratings—

(i) A powered-lift category rating;

(ii) A type rating for the powered-lift used in the course; and

(iii) An instrument-powered-lift rating or an airline transport pilot certificate with instrument privileges.

(2) Hold a current flight instructor certificate with the following ratings—

(i) A powered-lift category rating; and

(ii) An instrument-powered-lift rating, if an instrument rating is required for the course.

(b) Notwithstanding the qualification requirements in § 141.37(a)(3)(ii) of this chapter, for a course of training under part 141 of this chapter that uses a powered-lift, a person seeking designation as a check instructor for checks and tests that relate to ground training must hold a current flight instructor certificate with a powered-lift category rating or a ground instructor rating appropriate for the course.

§ 194.243 Pilot certification through completion of training, testing, and checking under part 135 of this chapter.

(a) *Part 135 airman certification training program.* (1) Subject to the requirements in subpart H to part 135 of this chapter, a certificate holder under part 119 of this chapter authorized to conduct part 135 operations may obtain approval under § 135.325 of this chapter to establish and implement a training curriculum to satisfy the following:

(i) Ground training, flight training, and aeronautical experience requirements in § 61.65 of this chapter and

§194.231 for the addition of an instrument-powered-lift rating to a commercial pilot certificate;

(ii) Ground training, flight training, and aeronautical experience requirements in §61.63(b) of this chapter for the addition of an aircraft category rating to a commercial pilot certificate; and

(iii) Ground and flight training requirements in §61.63(d) of this chapter to add a type rating to a commercial pilot certificate.

(2) No certificate holder may use a person, nor may any person serve, as an instructor in a training curriculum approved to meet the requirements of paragraph (a)(1) of this section unless, in addition to being qualified under §§135.338 and 135.340 of this chapter, the person holds a flight instructor certificate with a powered-lift category rating and instrument-powered-lift rating issued under part 61 of this chapter.

(3) A certificate holder may train a pilot in a training curriculum approved to meet the requirements of paragraph (a)(1) of this section only if the pilot is employed by the certificate holder under part 119 of this chapter and holds at least the certificates and ratings set forth by §194.215(a).

(4) In addition to §135.327 of this chapter, any curriculum approved under paragraphs (a)(1)(i) through (iii) of this section must include the applicable aeronautical knowledge areas, areas of operation, and flight training required by part 61 of this chapter. If an alternative requirement is provided in this part, that alternative may be used.

(b) *Part 135 airman certification and checking.* (1) A pilot who is employed by a certificate holder under part 119 of this chapter authorized to conduct operations under part 135 who completes the approved curricula in paragraphs (a)(1)(i) through (iii) of this section may apply to add a powered-lift category rating concurrently with a powered-lift instrument rating and an initial powered-lift type rating to a commercial pilot certificate if the person meets the following requirements:

(i) Meets the requirements of §§61.63(b) and 61.65(f) of this chapter, or if an alternative requirement is pro-

vided in this part, that alternative may be used;

(ii) Has a training record endorsement from the certificate holder certifying that the pilot satisfactorily completed the applicable ground and flight training curricula in the approved part 135 airman certification training program; and

(iii) Successfully completes the written or oral testing under §135.293(a)(2) and (3) of this chapter, a competency check under §135.293(b) of this chapter, and an instrument proficiency check under §135.297 of this chapter provided the following conditions are met:

(A) The competency check includes the maneuvers and procedures required for the issuance of a commercial pilot certificate with a powered-lift category rating, for the issuance of an instrument-powered-lift rating and for the issuance of a powered-lift type rating.

(B) The instrument proficiency check meets the requirements of §135.297 of this chapter as applicable to a pilot in command (PIC) holding a commercial pilot certificate except that the instrument approaches to be included in the check must include all instrument approaches required for the issuance of an instrument-powered-lift rating and not only those for which the pilot is to be authorized to perform in part 135 operations.

(2) Sections 135.293(d) and 135.301(b) of this chapter are not applicable to the competency check and instrument proficiency check required by paragraph (b)(1)(iii) of this section.

(3) A pilot who meets paragraph (b)(1) of this section will be issued a commercial pilot certificate with a powered-lift category rating, an instrument-powered-lift rating, and a powered-lift type rating.

(4) An applicant who fails a check under paragraph (b)(1) of this section may reapply for the check only after the applicant has received:

(i) The necessary training from an authorized instructor or instructor pilot who has determined that the applicant is proficient to pass the test; and

(ii) An endorsement from an authorized instructor or instructor pilot who gave the applicant the additional training.

(c) *Part 135 certification testing and checking personnel.* The testing, competency checks, and instrument proficiency checks required by paragraph (b) of this section must be administered by one of the following:

(1) An FAA Aviation Safety Inspector.

(2) An Aircrew Program Designee who is authorized to perform competency checks and instrument proficiency checks for the certificate holder whose approved ground and flight training curricula has been satisfactorily completed by the pilot applicant.

(3) A Training Center Evaluator with appropriate certification authority who is also authorized to perform competency checks and instrument proficiency checks for the certificate holder whose approved ground and flight training curricula has been satisfactorily completed by the pilot applicant.

§ 194.245 Pilot qualification and program management requirements to operate powered-lift under subpart K to part 91 of this chapter.

(a) Section 91.1055(a) of this chapter applies to powered-lift operating under subpart K to part 91.

(b) Reference to class of aircraft in § 91.1055(b)(2) of this chapter is inapplicable when a powered-lift is used for the operation under subpart K to part 91.

§ 194.247 Pilot qualification requirements to operate powered-lift under part 135 of this chapter.

(a) Unless otherwise directed in this chapter, powered-lift must continue to comply with rules applicable to aircraft specified in part 135.

(b) To comply with § 135.3 of this chapter, each certificate holder that conducts commuter operations under part 135 with powered-lift for which two pilots are required by the type certificate must:

(1) Comply with subpart Y to part 121 of this chapter instead of the requirements of subparts G and H to part 135; and

(2) Include in initial ground training for pilots in command and upgrade ground training, instruction and facilitated discussion on the following:

(i) Leadership and command; and

(ii) Mentoring, including techniques for instilling and reinforcing the highest standards of technical performance, airmanship, and professionalism in newly hired pilots.

(3) Include the training required by paragraph (b)(2)(ii) of this section in recurrent ground training for pilots in command every 36 calendar months.

(4) Include in initial flight training for pilots in command and upgrade flight training, sufficient scenario-based training incorporating crew resource management and leadership and command skills, to ensure the pilot's proficiency as pilot in command.

(c) In lieu of compliance with the operating experience requirements listed in § 135.244(a)(1) through (4) of this chapter, no certificate holder may use a person, nor may any person serve, as pilot in command of a powered-lift unless that person possesses 20 hours of operating experience in each make and basic model of powered-lift to be flown.

(d) To comply with § 135.345 of this chapter, initial, transition, and upgrade ground training for powered-lift pilots must include instruction in § 135.345(b)(6)(iv) of this chapter, as applicable.

§ 194.249 References to class in parts 135, 141, and 142 of this chapter.

(a) References to class of aircraft in §§ 135.4(b)(2), 135.247(a)(1) and (2), and 135.603 of this chapter are inapplicable when a powered-lift is used for the operation under part 135.

(b) Notwithstanding the course content contained in the appendices to part 141, references to a class rating or a class of aircraft in those appendices is inapplicable when a powered-lift is used for the course of training.

(c) References to class of aircraft in §§ 142.11(d)(2)(ii), 142.49(c)(3)(iii), 142.53(b)(1), and 142.65(b)(1) of this chapter are inapplicable when a powered-lift or flight simulation training device representing a powered-lift is used for the operation under part 142.

§ 194.251 Alternate means to satisfy minimum curriculum content in training courses under part 142 of this chapter.

A training course for which approval is requested is not required to consist of training on a task specified in an area of operation if the powered-lift is not capable of performing the task, provided the FAA has issued waiver authority for that task in accordance with § 194.207(b).

§ 194.253 Alternate requirements for powered-lift without fully functional dual controls used in flight training.

(a) *Powered-lift equipped with an instantly accessible single, functioning control.* (1) A person may utilize the alternate requirement provided in paragraph (a)(2) of this section only if the applicant holds at least the certificates and ratings set forth by § 194.215(a) and instruction is provided by:

(i) An instructor pilot for the manufacturer of the powered-lift under the manufacturer's proposed training curriculum, or

(ii) A flight instructor under an approved training curriculum under part 135, 141, or 142 of this chapter, as applicable.

(2) Notwithstanding the requirements of §§ 61.195(g) and 91.109(a) of this chapter, a person may operate a powered-lift that is being used for flight training without fully functioning dual controls provided—

(i) The powered-lift is equipped with a single functioning flight control that is instantly accessible by both the applicant and the instructor;

(ii) The single functioning flight control meets the certification standards for both pilot stations; and

(iii) The instructor has determined that the flight can be conducted safely.

(b) *Full flight simulator training for powered-lift with single functioning controls and a single pilot station.* A person may apply for a powered-lift category rating, an instrument-powered-lift rating, and a powered-lift type rating concurrently for a powered-lift with single controls and a single pilot station under an approved part 135, 141, or 142 training program by meeting the re-

quirements set forth in appendix A to this part.

(c) *Deviation authority.* Notwithstanding the requirements of §§ 61.195(g) and 91.109 of this chapter, the Administrator may authorize a deviation to operate a powered-lift that is being used for flight training in an approved training program under part 135, 141, or 142 without fully functioning dual controls provided:

(1) The certificate holder demonstrates in a form and manner acceptable to the Administrator that—

(i) The person providing the flight training and the PIC observing any applicable supervised operating experience can take immediate corrective action and full control of the powered-lift;

(ii) The flight training and any applicable supervised operating experience can be effectively conducted in the powered-lift; and

(2) The Administrator determines that the alternate flight training and applicable supervised operating experience set forth by paragraph (c)(1) of this section will not adversely affect safety.

(3) The FAA may cancel or amend a letter of deviation authority at any time if the Administrator determines that the requirements of this section are not met or if such action is necessary in the interest of safety.

§ 194.255 Alternate requirements for powered-lift without fully functioning dual controls used in supervised operating experience when adding a type rating.

(a) Notwithstanding § 61.64(f) of this chapter, a person who holds a powered-lift category, instrument-powered-lift rating, and powered-lift type rating and seeks an additional type rating for a powered-lift with a single functioning control and a single pilot station in accordance with §§ 61.63(d) and 61.64(a) of this chapter, and does not meet requirements of § 61.64(e), will receive a limitation on the certificate restricting the person operating the powered-lift type from carrying any person or property on the aircraft, other than necessary for the purpose of paragraph (b) of this section.

(b) The limitation described in paragraph (a) of this section may be removed from the rating if the person complies with the following:

(1) Performs 25 hours of flight time in the type of powered-lift for which the limitation applies under the observation of a fully rated pilot without limitations for the aircraft, maintaining full communication with the observing pilot,

(2) Logs each flight and the observing pilot attests in writing to each flight, and

(3) Presents evidence of the supervised operating experience to any examiner or Flight Standards office to have the limitation removed.

(c) The observing pilot must have unobstructed visual sight of the controls and instrumentation.

Subpart C—Requirements for Persons Operating Powered-Lift

§ 194.301 Applicability.

Unless otherwise specified by this part, persons operating powered-lift

must continue to comply with rules applicable to all aircraft in parts 91, 135, and 136 of this chapter, as applicable to the operation. In addition, any sections or paragraphs within sections under parts 91 and 135 that refer to specific categories of aircraft and that are not referenced in the SFAR table to § 194.302 or § 194.306, do not apply to powered-lift.

§ 194.302 Provisions under part 91 of this chapter applicable to powered-lift.

No person may operate a powered-lift under part 91 of this chapter unless that person complies with the regulations listed in the first column of table 1 to this section, notwithstanding their applicability to airplanes, helicopters, or rotorcraft, subject to the applicability provisions in the second column, and any additional requirements or clarification specified in the third column:

TABLE 1 TO § 194.302

Regulation	Applicability	Additional requirements or clarification
Part 91, Subpart A General		
(a) Section 91.9(a) and (b) of this chapter.	Applies to all powered-lift	The requirement for an approved Aircraft Flight Manual is set forth in the airworthiness criteria established under § 21.17(b) of this chapter.
Part 91, Subpart B Flight Rules		
(b) Section 91.103(b)(1) of this chapter.	Applies to powered-lift for which an approved Aircraft Flight Manual containing takeoff and landing distance data is required.	
(c) Section 91.107(a)(3)(i) through (iii) of this chapter.	Applies to all powered-lift	The exception under § 91.107(a)(3) of this chapter for seaplane and float equipped rotorcraft operations during movement on the surface applies to persons pushing off a powered-lift from the dock or persons mooring the powered-lift at the dock.
(d) Section 91.119(d) of this chapter.	Applies to powered-lift operating in vertical-lift flight mode.	Under § 91.119(d) of this chapter, a powered-lift may be operated in vertical-lift flight mode at less than the minimums prescribed in § 91.119(b) or (c) of this chapter, provided each person operating the powered-lift complies with any routes or altitudes specifically prescribed for powered-lift by the FAA.

TABLE 1 TO § 194.302—Continued

Regulation	Applicability	Additional requirements or clarification
(e) Section 91.126(b)(1) of this chapter.	Applies to powered-lift operating in wing-borne flight mode.	If the powered-lift is operating in vertical-lift flight mode, see paragraph (f) of this section.
(f) Section 91.126(b)(2) of this chapter.	Applies to powered-lift operating in vertical-lift flight mode.	If the powered-lift is operating in wing-borne flight mode, see paragraph (e) of this section.
(g) Section 91.129(e)(1) and (2), (g)(2), and (h) of this chapter.	Applies to large or turbine-powered powered-lift.	
(h) Section 91.129(e)(3) of this chapter.	Applies to powered-lift preparing to land in wing-borne flight mode.	
(i) Section 91.129(f)(1) of this chapter.	Applies to powered-lift operating in wing-borne flight mode.	(1) If the powered-lift is operating in vertical-lift flight mode, see paragraph (j) of this section. (2) Section 91.129(f)(1) of this chapter does not apply when the operator of a powered-lift is conducting a circling approach under part 97 of this chapter or when otherwise requested by air traffic control (ATC).
(j) Section 91.129(f)(2) of this chapter.	Applies to powered-lift operating in vertical-lift flight mode.	(1) If the powered-lift is operating in wing-borne flight mode, see paragraph (i) of this section. (2) Section 91.129(f)(2) does not apply when the operator of a powered-lift is conducting a circling approach under part 97 of this chapter or when otherwise requested by ATC.
(k) Section 91.131(a)(2) of this chapter.	Applies to large powered-lift.	
(l) Section 91.151(a) and (b) of this chapter.	Applies to powered-lift	(1) A powered-lift with the performance capability, as outlined in the Aircraft Flight Manual, to conduct a landing in the vertical-lift flight mode along the entire route of flight may use the VFR fuel requirements outlined in § 91.151(b) of this chapter. (2) Powered-lift unable to meet the requirements of paragraph (l)(1) of this section must use the rule requirements outlined in § 91.151(a) of this chapter.
(m) Section 91.155(a) of this chapter.	The helicopter provision under § 91.155(a) of this chapter applies to powered-lift operating in vertical-lift flight mode and at a speed that allows the pilot to see any other traffic or obstructions in time to avoid a collision.	(1) Except as provided in § 91.155(b) of this chapter, powered-lift that meet the requirements of paragraph (m) of this section may operate under the helicopter VFR visibility minimums outlined under § 91.155(a) of this chapter in class G airspace. (2) Powered-lift unable to meet the requirements of paragraph (m) of this section must use the VFR visibility minimums in § 91.155(a) of this chapter for aircraft other than helicopters.
(n) Section 91.155(b)(1) of this chapter.	Applies to powered-lift operating in the vertical-lift flight mode and at a speed that allows the pilot to see any other traffic or obstructions in time to avoid a collision.	(1) Powered-lift that meet the requirements of paragraph (n) of this section may use the VFR visibility minimums outlined in § 91.155(b)(1) of this chapter in Class G airspace.

TABLE 1 TO § 194.302—Continued

Regulation	Applicability	Additional requirements or clarification
(o) Section 91.155(b)(2) of this chapter.	Applies to powered-lift	(2) Powered-lift unable to meet the requirements of paragraph (n) of this section must use the visibility minimums outlined in § 91.155(b)(2) of this chapter. Powered-lift operating in Class G airspace that cannot meet the requirements of paragraph (n) of this section must use the VFR visibility minimums outlined under § 91.155(b)(2) of this chapter.
(p) Section 91.157(b)(3), (b)(4), and (c) of this chapter.	The helicopter exceptions outlined in § 91.157(b)(3), (b)(4), and (c) of this chapter apply to powered-lift operating in vertical-lift flight mode when those aircraft are operated at a speed that allows the pilot to see any other traffic or obstructions in time to avoid a collision.	
(q) Section 91.167(a)(3) and (b)(2)(ii) of this chapter.	The helicopter provisions in § 91.167(a)(3) and (b)(2)(ii) of this chapter apply to powered-lift authorized to conduct copter procedures and that have the performance capability for the entire flight to conduct a landing in the vertical-lift flight mode, as outlined in the Aircraft Flight Manual.	(1) Powered-lift that meet the requirements of paragraph (q) of this section may use the helicopter provisions under § 91.167(a)(3) and (b)(2)(ii) of this chapter. (2) Powered-lift that are unable to meet the requirements outlined in paragraph (q) of this section must use the 45-minute fuel requirement outlined in § 91.167(a)(3) of this chapter and the aircraft requirement outlined in § 91.167(b)(2)(i) of this chapter.
(r) Section 91.169(b)(2)(ii) and (c)(1)(ii) of this chapter.	Applies to powered-lift authorized to conduct copter procedures and that have the performance capability to land in the vertical-lift flight mode, as outlined in the Aircraft Flight Manual.	(1) Powered-lift that meet the requirements of paragraph (r) of this section may use the helicopter provisions specified in § 91.169(b)(2)(ii) and (c)(1)(ii) of this chapter. (2) Powered-lift that are unable to meet the requirements outlined in paragraph (r) of this section must use the requirements for aircraft other than helicopters under § 91.169(b)(2)(i) and (c)(1)(i) of this chapter.
(s) Section 91.175(f)(2)(iii) of this chapter.	Applies to powered-lift with two engines or less, that takeoff in vertical-lift flight mode, and that are authorized to conduct copter procedures.	Powered-lift with two engines or less that are unable to meet the requirements outlined in this paragraph (s) must comply with § 91.175(f)(2)(i) of this chapter.
(t) Section 91.175(f)(4)(i) of this chapter.	Applies to part 135 of this chapter powered-lift operators required to comply with subpart I to part 135 of this chapter.	
Part 91, Subpart C Equipment, Instrument, and Certificate Requirements		
(u) Section 91.205(b)(11) and (14) of this chapter.	Applies to small powered-lift	Position and anti-collision lights must meet § 23.2530(b) of this chapter.
(v) Section 91.205(d)(3)(i) of this chapter.	Applies to powered-lift certified for instrument flight rules operations.	
(w) Section 91.207 of this chapter.	Applies to all powered-lift.	
(x) Section 91.219 of this chapter.	Applies to all powered-lift.	

TABLE 1 TO § 194.302—Continued

Regulation	Applicability	Additional requirements or clarification
(y) Section 91.223(a) and (c) of this chapter.	Applies to powered-lift configured with 6 or more passenger seats, excluding any pilot seat.	Instead of terrain awareness and warning system (TAWS), powered-lift must be equipped with a helicopter terrain awareness and warning system (HTAWS) that meets the requirements in TSO-C194 and Section 2 of RTCA DO-309 (incorporated by reference, see § 194.109) or a FAA-approved TAWS A/HTAWS hybrid system.
Part 91, Subpart D Special Flight Operations		
(z) Section 91.313(g) of this chapter.	Applies to restricted category small powered-lift.	
Part 91, Subpart E Maintenance, Preventive Maintenance, and Alterations		
(aa) Section 91.409(e) through (h) of this chapter.	Applies to technically-advanced powered-lift which are powered-lift equipped with an electronically advanced system in which the pilot interfaces with a multi-computer system with increasing levels of automation in order to aviate, navigate, or communicate.	(1) Unless otherwise authorized by the Administrator, a technically advanced powered-lift must be equipped with an electronically advanced multi-computer system that includes one or more of the following installed components: (i) An electronic Primary Flight Display (PFD) that includes, at a minimum, an airspeed indicator, turn coordinator, attitude indicator, heading indicator, altimeter, and vertical speed indicator; (ii) An electronic Multifunction Display (MFD) that includes, at a minimum, a moving map using Global Positioning System (GPS) navigation with the aircraft position displayed; (iii) A multi-axis autopilot integrated with the navigation and heading guidance system; and (iv) Aircraft design with advanced fly-by-wire-flight control system that utilizes electronically operated controls with no direct mechanical link from the pilot to the control surfaces. (2) The display elements described in paragraphs (aa)(1)(i) and (ii) of this section must be continuously visible.
(bb) Section 91.411 of this chapter.	Applies to all powered-lift.	
Part 91, Subpart F Large and Turbine-Powered Multiengine Airplanes and Fractional Ownership Program Aircraft		
(cc) Section 91.501 of this chapter.	Applies to large powered-lift regardless of powerplant, as well as powered-lift operating under subpart K to part 91 of this chapter, and subject to any limitations outlined in this part.	Any sections or paragraphs within sections to subpart F to part 91 of this chapter that refer to a specific category of aircraft and that are not referenced in this table or the table to § 194.306, do not apply to powered-lift.
(dd) Section 91.503 of this chapter.	Applies to powered-lift subject to the requirements of subpart F to part 91 of this chapter as specified in paragraph (cc) of this section.	Powered-lift may comply with § 91.503(a)(5) of this chapter by having the appropriate engine or multiple-engines inoperative climb performance data available at the pilot station of the aircraft.

TABLE 1 TO § 194.302—Continued

Regulation	Applicability	Additional requirements or clarification
(ee) Section 91.505 of this chapter.	Applies to powered-lift subject to the requirements of subpart F to part 91 of this chapter as specified in paragraph (cc) of this section.	(1) Powered-lift operating over water under § 91.509(a) or (b) of this chapter may use either the nearest shore or the nearest off-shore heliport structure by which to measure the nautical mile limits provided in § 91.509(a) and (b). (2) The lifeline required by § 91.509(b)(5) of this chapter must be stored in accordance with § 25.1411(g) of this chapter or such airworthiness criteria as the FAA may find provide an equivalent level of safety in accordance with § 21.17(b) of this chapter. Powered-lift operating over water under § 91.511(a) of this chapter may use either the nearest shore or the nearest off-shore heliport structure by which to measure the nautical mile limits provided in § 91.511(a).
(ff) Section 91.507 of this chapter.	Applies to powered-lift subject to the requirements of subpart F to part 91 of this chapter as specified in paragraph (cc) of this section.	
(gg) Section 91.509 of this chapter.	Applies to powered-lift subject to the requirements of subpart F to part 91 of this chapter as specified in paragraph (cc) of this section.	
(hh) Section 91.511 of this chapter.	Applies to powered-lift subject to the requirements of subpart F to part 91 of this chapter as specified in paragraph (cc) of this section.	
(ii) Section 91.513 of this chapter.	Applies to powered-lift subject to the requirements of subpart F to part 91 of this chapter as specified in paragraph (cc) of this section.	
(jj) Section 91.515 of this chapter.	Applies to powered-lift subject to the requirements of subpart F to part 91 of this chapter as specified in paragraph (cc) of this section.	
(kk) Section 91.517 of this chapter.	Applies to powered-lift subject to the requirements of subpart F to part 91 of this chapter as specified in paragraph (cc) of this section.	
(ll) Section 91.519 of this chapter.	Applies to powered-lift subject to the requirements of subpart F to part 91 of this chapter as specified in paragraph (cc) of this section.	
(mm) Section 91.521 of this chapter.	Applies to large powered-lift subject to the requirements of subpart F to part 91 of this chapter as specified in paragraph (cc) of this section.	The safety belt and shoulder harness required by § 91.521 of this chapter must comply with § 25.785 of this chapter or such airworthiness criteria as the FAA may find provide an equivalent level of safety in accordance with § 21.17(b) of this chapter.
(nn) Section 91.523 of this chapter.	Applies to powered-lift having a seating capacity of more than 19 passengers subject to the requirements of subpart F to part 91 of this chapter as specified in paragraph (cc) of this section.	The carry-on baggage required by § 91.523 of this chapter must be stowed such that it can withstand the inertia forces specified in § 25.561(b)(3) of this chapter or such airworthiness criteria as the FAA may find provide an equivalent level of safety in accordance with § 21.17(b) of this chapter.
(oo) Section 91.525 of this chapter.	Applies to powered-lift subject to the requirements of subpart F to part 91 of this chapter as specified in paragraph (cc) of this section.	

TABLE 1 TO § 194.302—Continued

Regulation	Applicability	Additional requirements or clarification
(pp) Section 91.527(a) of this chapter.	Applies to powered-lift subject to the requirements of subpart F to part 91 of this chapter as specified in paragraph (cc) of this section.	(1) Powered-lift critical surfaces, as outlined in the Aircraft Flight Manual for that aircraft, must also be determined to be free of frost, ice, or snow. (2) Powered-lift critical surfaces under this section are determined by the manufacturer.
(qq) Section 91.527(b)(2) and (3) of this chapter.	Applies to powered-lift subject to the requirements of subpart F to part 91 of this chapter as specified in paragraph (cc) of this section.	Instead of § 91.527(b)(2) and (3) of this chapter, to operate instrument flight rules (IFR) into known light or moderate icing conditions or VFR into known light or moderate icing conditions, an operator must comply with § 194.306(xx).
(rr) Section 91.527(c) of this chapter.	Applies to powered-lift subject to the requirements of subpart F to part 91 of this chapter as specified in paragraph (cc) of this section.	No pilot may fly a powered-lift into known or forecast severe icing conditions.
(ss) Section 91.531(a)(1) and (2), (b), and (c) of this chapter.	Applies to powered-lift subject to the requirements of subpart F to part 91 of this chapter as specified in paragraph (cc) of this section and that meet the additional requirements as set forth in each paragraph of § 91.531 of this chapter; § 91.531(b)(2) of this chapter applies to large powered-lift that meet the additional requirements set forth in that paragraph.	
(tt) Section 91.533 of this chapter.	Applies to powered-lift subject to the requirements of subpart F to part 91 of this chapter as specified in paragraph (cc) of this section.	

Part 91, Subpart G Additional Equipment and Operating Requirements for Large and Transport Category Aircraft

(uu) Section 91.603 of this chapter.	Applies to large powered-lift	The aural speed warning device required by § 91.603 of this chapter must comply with § 25.1303(c)(1) of this chapter or such airworthiness criteria as the FAA may find provide an equivalent level of safety in accordance with § 21.17(b) of this chapter.
(vv) Section 91.605(b)(1) of this chapter.	Applies to large powered-lift	The Aircraft Flight Manual must contain the takeoff weight performance information.
(ww) Section 91.605(b)(2) of this chapter.	Applies to large powered-lift	The Aircraft Flight Manual must contain the landing performance information.
(xx) Section 91.605(b)(3), (b)(4)(ii), and (c) of this chapter.	Applies to large powered-lift that execute takeoff operations using wing-borne lift and that have takeoff performance information contained in the Aircraft Flight Manual.	

TABLE 1 TO § 194.302—Continued

Regulation	Applicability	Additional requirements or clarification
(yy) Section 91.609(c), (d), (e), (i), and (j) of this chapter.	Paragraph (c) of § 91.609 of this chapter applies to powered-lift with a passenger seating configuration, excluding any pilot seats, of 10 or more seats; § 91.609(e) of this chapter applies to powered-lift with a passenger seating configuration of six or more seats and for which two pilots are required by type certification or operating rule; § 91.609(d) of this chapter applies to powered-lift required by that section to have a flight data recorder; and § 91.609(i) and (j) of this chapter apply to powered-lift required by that section to have a cockpit voice recorder and a flight data recorder.	(1) Operators of powered-lift having a passenger seating configuration, excluding any pilot seat, of 10 or more must comply with § 194.310 or § 194.311 in lieu of the appendices referenced in § 91.609(c)(1) of this chapter. (2) For compliance with § 91.609(c)(3), (e)(1), and (i) of this chapter, powered-lift must comply with the certification provisions listed in those paragraphs or such airworthiness criteria as the FAA may find provide an equivalent level of safety in accordance with § 21.17(b) of this chapter. (3) Under § 91.609(d) of this chapter, the flight recorder must operate continuously from the earlier of when the powered-lift begins the takeoff roll or begins lift-off until the later of when the powered-lift completes the landing roll or lands at its destination.
(zz) Section 91.613(b)(2) of this chapter.	Applies to large powered-lift	The thermal/acoustic installation materials required by § 91.613(b)(2) of this chapter must meet the requirements of § 25.856 of this chapter or such airworthiness criteria as the FAA may find provide an equivalent level of safety in accordance with § 21.17(b) of this chapter.
Part 91, Subpart K Fractional Ownership Operations		
(aaa) Section 91.1037 of this chapter.	Applies to large powered-lift subject to the requirements of subpart K to part 91 of this chapter that are certificated to conduct landing operations in wing-borne flight mode as indicated in the Aircraft Flight Manual.	If a powered-lift operator is required to comply with this section, the operator must also comply with § 91.1025(o)(7) of this chapter.
(bbb) Section 91.1041(b) and (d) of this chapter.	Applies to all powered-lift subject to the requirements of subpart K to part 91 of this chapter.	
(ccc) Section 91.1045(a) of this chapter.	Applies to powered-lift subject to the requirements of subpart K to part 91 of this chapter with a passenger-seat configuration of more than 30 seats or a payload capacity of more than 7,500 pounds.	Under § 91.1045(a)(3) of this chapter, instead of TAWS, powered-lift must be equipped with a helicopter terrain awareness and warning system (HTAWS) that meets the requirements in TSO-C194 and Section 2 of RTCA DO-309 (incorporated by reference, see § 194.109) or a FAA-approved TAWS A/HTAWS hybrid system.
(ddd) Section 91.1045(b) of this chapter.	Applies to powered-lift subject to the requirements of subpart K to part 91 of this chapter with a passenger-seat configuration of 30 seats or fewer, excluding each crewmember, and a payload capacity of 7,500 pounds or less.	Compliance with § 91.1045(b)(3) of this chapter requires a helicopter terrain awareness and warning system that complies with § 194.306(s).

§ 194.303

[Docket FAA–2023–1275, Amdt. 194–1, 89 FR 92489, Nov. 21, 2024; Amdt. 194–1A, 90 FR 216, Jan. 3, 2025]

§ 194.303 IFR takeoff, approach, and landing minimums.

Section 91.1039(c) of this chapter applies to all powered-lift operated under subpart K to part 91 of this chapter regardless of powerplant type.

§ 194.304 ATC transponder and altitude reporting equipment and use.

Notwithstanding § 194.301, the exceptions outlined in § 91.215(b)(3) and (5) of this chapter for aircraft not certificated with an engine-driven electrical system do not apply to powered-lift.

§ 194.305 Applicability of copter procedures under part 97 of this chapter to powered-lift.

Persons operating powered-lift may use copter procedures as defined in

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§ 97.3 of this chapter if the aircraft is certified for instrument flight rule operations and does not contain a limitation prohibiting use of such procedures in its Aircraft Flight Manual.

§ 194.306 Provisions under part 135 of this chapter applicable to powered-lift.

No person may operate a powered-lift under part 135 of this chapter unless that person complies with the regulations listed in the first column of table 1 to this section, notwithstanding their applicability to airplanes, helicopters, or rotorcraft, subject to the applicability provisions in the second column and any additional requirements or clarification specified in the third column.

TABLE 1 TO § 194.306

Regulation	Applicability	Additional requirements or clarification
Part 135, Subpart A General		
(a) Section 135.1(a)(9) of this chapter.	Applies to powered-lift conducting operations in accordance with subpart L of part 135 of this chapter.	
(b) Section 135.23(r) of this chapter.	Applies to powered-lift required to comply with § 135.385 of this chapter as set forth in paragraphs (hhh) and (iii) of this section.	
Part 135, Subpart B Flight Operations		
(c) Section 135.93(a) through (f) of this chapter.	Applies to all powered-lift	(1) The requirements referencing an Airplane Flight Manual under § 135.93(b) of this chapter apply to a powered-lift's Aircraft Flight Manual. (2) Under § 135.93(c) of this chapter, no person operating a powered-lift may use an autopilot enroute, including climb and descent, below the following— (i) Either: (A) At a minimum engagement altitude specified in the Aircraft Flight Manual; or (B) If no minimum engagement altitude is specified, 500 feet, or at an altitude that is no lower than twice the altitude loss specified in the Aircraft Flight Manual for an autopilot malfunction in cruise conditions, whichever is greater; or (ii) Notwithstanding the requirements of paragraphs (c)(2)(i)(A) and (B) of this section, at an altitude specified by the Administrator.

TABLE 1 TO § 194.306—Continued

Regulation	Applicability	Additional requirements or clarification
(d) Section 135.117(a)(9) of this chapter.	Applies to powered-lift conducting operations beyond the autorotational distance from the shoreline, as defined in § 135.168(a) of this chapter, or gliding distance of a shoreline.	
(e) Section 135.128(a) of this chapter.	Applies to all powered-lift	The exception under § 135.128(a) of this chapter for seaplane and float equipped rotorcraft operations during movement on the surface applies to persons pushing off a powered-lift from the dock or persons mooring the powered-lift at the dock.
Part 135, Subpart C Aircraft and Equipment		
(f) Section 135.145(b) of this chapter.	Applies to all powered-lift unless the certificate holder has previously proven a powered-lift under part 135 of this chapter.	
(g) Section 135.145(d)(1) of this chapter.	Applies to all powered-lift unless a powered-lift of the same make or similar design has been proven or validated by that certificate holder under part 135 of this chapter.	
(h) Section 135.150(a)(7) of this chapter.	Applies to large powered-lift with a passenger seating configuration, excluding any pilot seat, of more than 19.	The public address system required by § 135.150(a)(7) of this chapter must comply with § 25.1423 of this chapter or such airworthiness criteria as the FAA may find provide an equivalent level of safety in accordance with § 21.17(b) of this chapter.
(i) Section 135.150(b)(7) of this chapter.	Applies to large powered-lift with a passenger seating configuration, excluding any pilot seat, of more than 19.	The crewmember interphone system must comply with the requirements of § 135.150(b)(7) of this chapter or such airworthiness criteria as the FAA may find provide an equivalent level of safety in accordance with § 21.17(b) of this chapter.
(j) Section 135.151(a) of this chapter.	Applies to powered-lift with a passenger seating configuration of six or more seats and for which two pilots are required by certification or operating rules.	The cockpit voice recorder must be installed and equipped in accordance with the certification provisions listed in § 135.151(a)(1) of this chapter or such airworthiness criteria as the FAA may find provide an equivalent level of safety in accordance with § 21.17(b) of this chapter.
(k) Section 135.151(b) of this chapter.	Applies to powered-lift with a passenger seating configuration of 20 or more seats.	The cockpit voice recorder must be installed and equipped in accordance with the certification provisions listed in § 135.151(b)(1) of this chapter or such airworthiness criteria as the FAA may find provide an equivalent level of safety in accordance with § 21.17(b) of this chapter.

TABLE 1 TO § 194.306—Continued

Regulation	Applicability	Additional requirements or clarification
(l) Section 135.151(d) of this chapter.	Applies to large powered-lift or powered-lift equipped with a cockpit voice recorder.	The cockpit voice recorder required by § 135.151(d) of this chapter must record the uninterrupted audio signal received by a boom or mask microphone in accordance with § 25.1457(c)(5) of this chapter or such airworthiness criteria as the FAA may find provide an equivalent level of safety in accordance with § 21.17(b) of this chapter.
(m) Section 135.151(g)(1) of this chapter.	Applies to powered-lift with a passenger seating configuration of six or more seats, for which two pilots are required by certification or operating rules, and that are required to have a flight data recorder under § 135.152 of this chapter.	The cockpit voice recorder must be installed and equipped in accordance with the appropriate certification provisions listed in § 135.151(g)(1)(i) and (iv) of this chapter or such airworthiness criteria as the FAA may find provide an equivalent level of safety in accordance with § 21.17(b) of this chapter.
(n) Section 135.151(g)(2) of this chapter.	Applies to powered-lift with a passenger seating configuration of 20 or more seats and that is required to have a flight data recorder under § 135.152 of this chapter.	The cockpit voice recorder must be installed and equipped in accordance with the appropriate certification provisions listed in § 135.151(g)(2)(i) and (iv) of this chapter or such airworthiness criteria as the FAA may find provide an equivalent level of safety in accordance with § 21.17(b) of this chapter.
(o) Section 135.151(h) of this chapter.	Applies to powered-lift required to have a cockpit voice recorder and a flight data recorder under part 135 with installed datalink communication equipment.	
(p) Section 135.152(a) of this chapter.	Section 135.152(a) of this chapter applies to powered-lift with a passenger seating configuration of 10 to 19 seats.	Powered-lift operators must comply with § 194.312 or § 194.313 in lieu of the appendices referenced in § 135.152 of this chapter.
(q) Section 135.152(b) introductory text and (b)(3) of this chapter.	Section 135.152(b) introductory text and (b)(3) apply to powered-lift with a passenger seating configuration of 20 to 30 seats.	
(r) Section 135.152(c), (d), (f), and (j) of this chapter.	Applies to powered-lift with a passenger seating configuration, excluding crew-member seats, of 10 to 30.	(1) The flight recorder must be installed and equipped in accordance with the appropriate certification provisions listed in § 135.152 of this chapter or such airworthiness criteria as the FAA may find provide an equivalent level of safety in accordance with § 21.17(b) of this chapter. (2) Certificate holders must keep the recorded data until the powered-lift has been operating for at least 25 hours. (3) The powered-lift flight recorder must be operated continuously from the instant the powered-lift begins the takeoff roll or lift-off until the landing is completed.

TABLE 1 TO § 194.306—Continued

Regulation	Applicability	Additional requirements or clarification
(s) Section 135.154(a) and (c) of this chapter.	Applies to powered-lift configured with 6 or more passenger seats, excluding any pilot seat.	Instead of TAWS, powered-lift must be equipped with a helicopter terrain awareness and warning system (HTAWS) that meets the requirements in TSO-C194 and Section 2 of RTCA DO-309 (incorporated by reference, see § 194.109) or a FAA-approved TAWS A/HTAWS hybrid system.
(t) Section 135.158 of this chapter.	Applies to powered-lift equipped with a flight instrument pitot heating system.	Under § 135.158(a) of this chapter, no person may operate a powered-lift equipped with a flight instrument pitot heating system unless the aircraft is also equipped with an operable pitot heat indication system that complies with § 23.2605 or § 25.1326 of this chapter, or such airworthiness criteria as the FAA may find provide an equivalent level of safety in accordance with § 21.17(b) of this chapter that provides an alert that is in clear view of a flightcrew member.
(u) Section 135.159(a)(1) of this chapter.	Applies to powered-lift with a third attitude instrument system that meets the requirements of § 135.159(a)(1) of this chapter.	
(v) Section 135.160 of this chapter.	Applies to all powered-lift.	
(w) Section 135.163(g) of this chapter.	Applies to all powered-lift	The two required generators may be mounted on a drivetrain that is driven by two separate powerplants as outlined in § 135.163(g) of this chapter for multi-engine helicopters.
(x) Section 135.165(d) of this chapter.	Applies to powered-lift having a passenger seat configuration, excluding any pilot seat, of 10 seats or more, or a powered-lift in a commuter operation, as defined in part 119 of this chapter.	
(y) Section 135.165(g)(1) of this chapter.	Applies to powered-lift for purposes of approving a single long-range navigation system and a single long-range communication system for extended over-water operations.	
(z) Section 135.168 of this chapter.	Applies to powered-lift operating beyond autorotational distance or gliding distance from the shoreline.	(1) The life preserver required by § 135.168(b)(1) of this chapter need not be worn but must be readily available for its intended use and easily accessible to each occupant when the powered-lift is a multiengine aircraft operated at a weight that will allow it to climb, with the critical engine inoperative or while experiencing a critical change of thrust, at least 50 feet a minute, at an altitude of 1,000 feet above the surface. (2) For powered-lift unable to meet the requirements of paragraph (z)(1) of this section, the occupants must wear life preservers during the flight.

TABLE 1 TO § 194.306—Continued

Regulation	Applicability	Additional requirements or clarification
(aa) Section 135.169(a) of this chapter.	Applies to large powered-lift	(3) For purposes of paragraphs (z), (ii), (jj), and (kk) of this section, <i>critical change of thrust</i> means a failure that would most adversely affect the performance or handling qualities of an aircraft. Powered-lift must comply with appropriate certification provisions listed in § 135.169(a) of this chapter or such airworthiness criteria as the FAA may find provide an equivalent level of safety in accordance with § 21.17(b) of this chapter.
(bb) Section 135.169(b)(1) and (b)(8) of this chapter.	Applies to small powered-lift with a passenger seating configuration, excluding pilot seats, of 10 seats or more.	(1) Under § 135.169(b)(1) of this chapter, small powered-lift with a passenger seating configuration of 10 seats or more must comply with the applicable requirements for transport category powered-lift or such airworthiness criteria as the FAA may find provide an equivalent level of safety in accordance with § 21.17(b) of this chapter. (2) Under § 135.169(b)(8) of this chapter, small powered-lift with a passenger seating configuration of 10 seats or more must comply with the applicable requirements under part 23 of this chapter referenced in § 135.169(b)(8) of this chapter or such airworthiness criteria as the FAA may find provide an equivalent level of safety in accordance with § 21.17(b) of this chapter.
(cc) Section 135.169(d) of this chapter.	Applies to large powered-lift with a cargo or baggage compartment of 200 cubic feet or greater.	The cargo and baggage compartments required by § 135.169(d) of this chapter must comply with the certification provisions listed in that paragraph or such airworthiness criteria as the FAA may find provide an equivalent level of safety in accordance with § 21.17(b) of this chapter.
(dd) Section 135.170(b)(1) of this chapter.	Applies to large powered-lift; § 135.170(b)(1)(ii) applies to large powered-lift with a passenger capacity of 20 or more.	Powered-lift must comply with appropriate certification provisions listed in § 135.170(b)(1) of this chapter or such airworthiness criteria as the FAA may find provide an equivalent level of safety in accordance with § 21.17(b) of this chapter.
(ee) Section 135.170(b)(2) of this chapter.	Applies to large powered-lift	The seat cushions required by § 135.170(b)(2) of this chapter must comply with § 25.853 of this chapter or such airworthiness criteria as the FAA may find provide an equivalent level of safety in accordance with § 21.17(b) of this chapter.
(ff) Section 135.170(c)(2) of this chapter.	Applies to large powered-lift	The seat cushions required by § 135.170(c)(2) of this chapter must comply with § 25.856 of this chapter or such airworthiness criteria as the FAA may find provide an equivalent level of safety in accordance with § 21.17(b) of this chapter.

TABLE 1 TO § 194.306—Continued

Regulation	Applicability	Additional requirements or clarification
(gg) Section 135.178 of this chapter.	Applies to powered-lift having a passenger-seating configuration of more than 19 seats.	The additional emergency equipment must comply with appropriate certification provisions listed in § 135.178 of this chapter or such airworthiness criteria as the FAA may find provide an equivalent level of safety in accordance with § 21.17(b) of this chapter.
(hh) Section 135.180 of this chapter.	Applies to powered-lift with a passenger seat configuration, excluding any pilot seat, of 10 to 30 seats.	The Aircraft Flight Manual must contain the information outlined in § 135.180(b) of this chapter.
(ii) Section 135.181(a)(2) of this chapter.	Applies to powered-lift	No person may operate a multiengine powered-lift carrying passengers over-the-top or in IFR conditions at a weight that will not allow it to climb, with the critical engine inoperative or while experiencing a critical change of thrust as defined in paragraph (z) of this section, at least 50 feet a minute when operating at the MEAs of the route to be flown or 5,000 feet MSL, whichever is higher.
(jj) Section 135.181(b) of this chapter.	Applies to powered-lift conducting off-shore passenger operations.	Multiengine powered-lift carrying passengers offshore may conduct such operations in over-the-top or in IFR conditions at a weight that will allow the powered-lift to climb at least 50 feet per minute with the critical engine inoperative or while experiencing a critical change of thrust as defined in paragraph (z) of this section, when operating at the MEA of the route to be flown or 1,500 feet MSL, whichever is higher.
(kk) Section 135.183(c) of this chapter.	Applies to powered-lift	No person may operate a land aircraft carrying passengers over water unless it is a multiengine aircraft operated at a weight that will allow it to climb, with the critical engine inoperative or while experiencing a critical change of thrust as defined in paragraph (z) of this section, at least 50 feet a minute, at an altitude of 1,000 feet above the surface.
(ll) Section 135.183(d) of this chapter.	Applies if the powered-lift is equipped with flotation devices and carrying passengers over water.	
Part 135, Subpart D VFR/IFR Operating Limitations and Weather Requirements		
(mm) Section 135.203(a) of this chapter.	Applies to powered-lift except those operating in the vertical-lift flight mode under paragraph (nn) of this section.	The Administrator may authorize a lower minimum altitude for a powered-lift if the FAA has determined, during type certification, the lower minimum altitude enables a transition from wing-borne to vertical-lift flight mode and the aircraft can conduct a safe autorotation, or an approved equivalent maneuver, to a landing but no lower than 300 feet above the surface.

TABLE 1 TO § 194.306—Continued

Regulation	Applicability	Additional requirements or clarification
(nn) Section 135.203(b) of this chapter.	Applies to powered-lift operating in vertical-lift flight mode that are certificated and able to conduct an autorotation or an approved equivalent maneuver to a landing.	Powered-lift that do not meet the requirements of this paragraph (nn) must use the VFR minimum altitudes outlined in paragraph (mm) of this section.
(oo) Section 135.205(a) of this chapter.	Applies to all powered-lift except as provided in paragraph (pp) of this section.	
(pp) Section 135.205(b) of this chapter.	Applies to powered-lift operating in vertical-lift flight mode and at a speed that allows the pilot adequate opportunity to see and avoid any other air traffic or any obstructions in time to avoid a collision.	Powered-lift that do not meet the requirements of this paragraph (pp) must use the VFR visibility requirements outlined in § 135.205(a) of this chapter.
(qq) Section 135.207 of this chapter.	Applies if the powered-lift does not have the flight instrumentation listed in § 135.159 of this chapter installed and operable.	
(rr) Section 135.209(a) of this chapter.	Applies to all powered-lift except as provided in paragraph (ss) of this section.	(1) The Administrator may authorize deviations from § 135.209(a) of this chapter for specific routes with one or more predetermined suitable landing areas if the FAA finds the operation can be conducted safely. If the Administrator authorizes such a deviation, an operations specification will be issued to the operator containing, at a minimum, the specific routes and the VFR fuel reserve specified in minutes. The Administrator may, at any time, terminate any grant of deviation authority issued under this paragraph. (2) <i>Suitable landing area</i> for purposes of this paragraph (rr) and paragraph (ss) of this section means an area that provides the operator reasonable capability to land without causing undue hazard to persons or property. These suitable landing areas must be site specific, designated by the operator, and accepted by the FAA.
(ss) Section 135.209(b) of this chapter.	Applies to powered-lift with the performance capability, as provided in the Aircraft Flight Manual, for the entire flight to conduct a landing in the vertical-lift flight mode.	The Administrator may authorize deviations from § 135.209(b) of this chapter for specific routes with one or more predetermined suitable landing areas if the FAA finds the operation can be conducted safely. If the Administrator authorizes such a deviation, an operations specification will be issued to the operator containing, at a minimum, the specific routes and the VFR fuel reserve specified in minutes. The Administrator may, at any time, terminate any grant of deviation authority issued under this paragraph.
(tt) Section 135.221(b) of this chapter.	Applies to powered-lift authorized to conduct copter procedures and which can land in the vertical-lift flight mode, as provided in the Aircraft Flight Manual.	Powered-lift that do not meet these criteria must use the alternate airport minimums specified for aircraft in § 135.221(a) of this chapter.

TABLE 1 TO § 194.306—Continued

Regulation	Applicability	Additional requirements or clarification
(uu) Section 135.223(a)(3) of this chapter.	Applies to powered-lift authorized to conduct copter procedures and that have the performance capability, as provided in the Aircraft Flight Manual, to conduct a landing in the vertical-lift flight mode for the entire flight.	(1) A powered-lift that meets the requirements of paragraph (uu) of this section may use the 30-minute fuel requirements specified for helicopters in § 135.223(a)(3) of this chapter. (2) Powered-lift that are unable to meet the requirements outlined in paragraph (uu) of this section must use the 45-minute fuel requirement outlined in § 135.223(a)(3) of this chapter.
(vv) Section 135.225(e) of this chapter.	Applies to all powered-lift.	
(ww) Section 135.227(b) of this chapter.	Applies to all powered-lift	(1) Powered-lift critical surfaces, as outlined in the aircraft flight manual for that aircraft, must also be determined to be free of frost, ice, or snow. (2) Powered-lift critical surfaces under this section are determined by the manufacturer.
(xx) Section 135.227(d) of this chapter.	Applies to powered-lift that are type certificated and appropriately equipped for operations in icing conditions.	
(yy) Section 135.229(b)(2)(ii) of this chapter.	Applies to powered-lift taking off or landing in vertical-lift flight mode and equipped with landing lights oriented in a direction that enables the pilot to see the area to be used for landing or take-off marked by reflective material.	If a powered-lift is not taking off or landing in vertical-lift flight mode and is not equipped with landing lights oriented in a direction that enables the pilot to see the area to be used for landing or take-off marked by reflective material, the powered-lift must take off or land at an airport with boundary or runway marker lights.
Part 135, Subpart F Crewmember Flight Time and Duty Period Limitations and Rest Requirements		
(zz) Section 135.271 of this chapter.	Applies to powered-lift conducting operations in accordance with subpart L to part 135 of this chapter.	
Part 135, Subpart I Airplane Performance Operating Limitations		
(aaa) Section 135.361(a) of this chapter.	As applicable to each powered-lift considering size and certification basis and subject to any limitations outlined in this part.	Any sections or paragraphs within sections to subpart I to part 135 of this chapter that refer to a specific category of aircraft and that are not referenced in the table 1 to § 194.302 or this table, do not apply to powered-lift.
(bbb) Section 135.363(b) through (e) of this chapter.	As applicable to each powered-lift, regardless of power plant type, considering size and certification basis.	
(ccc) Section 135.363(f) of this chapter.	Applies to powered-lift that must comply with §§ 135.365 through 135.387 of this chapter as set forth in paragraphs (ddd) through (jjj) of this section.	
(ddd) Section 135.379(a) and (d) of this chapter.	Applies to large powered-lift	The Aircraft Flight Manual must contain the takeoff weight performance information.

TABLE 1 TO § 194.306—Continued

Regulation	Applicability	Additional requirements or clarification
(eee) Section 135.379(c), (e), (f), and (g) of this chapter.	Applies to large powered-lift certificated to conduct takeoff operations that utilize wing-borne lift as indicated in the aircraft flight manual.	The accelerate-stop distance required by § 135.379(c)(1) of this chapter must comply with § 25.109 of this chapter or such airworthiness criteria as the FAA may find provide an equivalent level of safety in accordance with § 21.17(b) of this chapter.
(fff) Section 135.381 of this chapter.	Applies to large powered-lift	
(ggg) Section 135.383(c) of this chapter.	Applies to large powered-lift	
(hhh) Section 135.385(a) of this chapter.	Applies to large powered-lift	The Aircraft Flight Manual must contain the landing weight performance information.
(iii) Section 135.385(b), (d), (e), and (f) of this chapter.	Applies to large powered-lift certificated to conduct landing operations that utilize wing-borne lift and that have landing performance information contained in the aircraft flight manual.	Section 135.385(f) only applies to eligible on-demand operators.
(jjj) Section 135.387(a) and (b) of this chapter.	Applies to large powered-lift certificated to conduct landing operations that utilize wing-borne lift and that have landing performance information contained in the aircraft flight manual.	(1) Powered-lift operating under § 135.387(a) of this chapter must be able to complete a full stop landing within 60 percent of the effective length of the runway. (2) Section 135.387(b) only applies to eligible on-demand operators.
(kkk) Section 135.397(b) of this chapter.	Applies to small powered-lift having a passenger-seating configuration of more than 19 seats and that utilize wing-borne lift during takeoff and landing.	The Aircraft Flight Manual must contain the takeoff and landing weight performance information.
Part 135, Subpart J Maintenance, Preventive Maintenance, and Alterations		
(III) Section 135.429(d) of this chapter.	Applies to powered-lift that operate in remote areas or sites	
Part 135, Subpart L Helicopter Air Ambulance Equipment, Operations, and Training Requirements		
(mmm) Section 135.601 of this chapter.	Applies to powered-lift conducting operations in accordance with subpart L to part 135 of this chapter.	
(nnn) Section 135.603 of this chapter.	Applies to powered-lift conducting operations in accordance with subpart L to part 135 of this chapter.	(1) Under § 135.603 of this chapter, no certificate holder may use, nor may any person serve as, a pilot in command of an air ambulance operation unless that person meets the requirements of § 135.243 of this chapter and holds a powered-lift instrument rating or an airline transport pilot certificate with a category rating for that aircraft, that is not limited to VFR. (2) See § 194.249 of this chapter for references to class in part 135 of this chapter.

TABLE 1 TO § 194.306—Continued

Regulation	Applicability	Additional requirements or clarification
(ooo) Section 135.605 of this chapter.	Applies to powered-lift conducting operations in accordance with subpart L to part 135 of this chapter.	Powered-lift must be equipped with a helicopter terrain awareness and warning system (HTAWS) that meets the requirements in TSO-C194 and Section 2 of RTCA DO-309 (incorporated by reference, see § 194.109) or a FAA-approved TAWS A/HTAWS hybrid system. (1) For nonmountainous local flying areas, powered-lift must comply with the following weather minimums: (i) During day operations in a vertical-lift or wing-borne flight mode, a ceiling of 800 feet and visibility of 2 SM; (ii) During night operations in a vertical-lift flight mode, a ceiling of 800 feet and visibility of 3 SM; and (iii) During night operations in a wing-borne flight mode, a ceiling of 1,500 feet and visibility of 3 SM. (2) For nonmountainous, non-local flying areas, powered-lift must comply with the following weather minimums: (i) During day operations in a vertical-lift or wing-borne flight mode, a ceiling of 800 feet and visibility of 3 SM; (ii) During night operations in a vertical-lift flight mode, a ceiling of 1,000 feet and visibility of 3 SM. (iii) During night operations in a wing-borne flight mode, a ceiling of 1,500 feet and visibility of 3 SM. (3) For mountainous local flying areas, powered-lift must comply with the following weather minimums: (i) During day operations in a vertical-lift or wing-borne flight mode, a ceiling of 800 feet and visibility of 3 SM; (ii) During night operations in a vertical-lift flight mode, a ceiling of 1,000 feet and visibility of 3 SM. (iii) During night operations in a wing-borne flight mode, a ceiling of 2,500 feet and visibility of 3 SM. (4) For mountainous non-local flying areas, powered-lift must comply with the following weather minimums: (i) During day operations in a vertical-lift or wing-borne flight mode, a ceiling of 1,000 feet and visibility of 3 SM; and (ii) During night operations in a vertical-lift flight mode, a ceiling of 1,000 feet and visibility of 5 SM; (iii) During night operations in a wing-borne flight mode, a ceiling of 2,500 feet and visibility of 5 SM.
(ppp) Section 135.607 of this chapter.	Applies to powered-lift conducting operations in accordance with subpart L to part 135 of this chapter.	
(qqq) Section 135.609 of this chapter.	Applies to powered-lift conducting operations in accordance with subpart L to part 135 of this chapter.	
(rrr) Section 135.611 of this chapter.	Applies to powered-lift conducting operations in accordance with subpart L to part 135 of this chapter.	

TABLE 1 TO § 194.306—Continued

Regulation	Applicability	Additional requirements or clarification
(sss) Section 135.613(a) of this chapter.	Applies to powered-lift conducting operations in accordance with subpart L to part 135 of this chapter.	(1) Section 135.613(a)(1) of this chapter only applies to powered-lift equipped and certified to conduct PinS approaches annotated with a “Proceed VFR” segment. (2) The applicable VFR weather minimums under § 135.613(a)(2) of this chapter for powered-lift operating in the wing-borne flight mode are: (i) For Day Operations: No less than a 1,000-foot ceiling and 2 statute miles flight visibility; and (ii) For Night Operations: No less than a 1,500-foot ceiling and 3 statute miles flight visibility. (3) The applicable VFR weather minimums under § 135.613(a)(2) of this chapter for powered-lift operating in the vertical-lift mode are: (i) For Day Operations: No less than a 600-foot ceiling and 2 statute miles flight visibility; and (ii) For Night Operations: No less than a 600-foot ceiling and 3 statute miles flight visibility.
(ttt) Section 135.613(b) of this chapter.	Applies to powered-lift conducting operations in accordance with subpart L to part 135.	(1) Under § 135.613(b)(1) of this chapter, for transitions from VFR to IFR upon departure, the VFR weather minimums outlined for powered-lift under paragraph (sss) of this section apply if: (i) An FAA-approved obstacle departure procedure is followed; and (ii) An IFR clearance is obtained on or before reaching a predetermined location that is not more than 3 NM from the departure location. (2) Under § 135.613(b)(2) of this chapter, if the departure does not meet the requirements of paragraph (ttt)(1) of this section, the VFR weather minimums required by the SFAR for the class of airspace apply.
(uuu) Section 135.615 of this chapter.	Applies to powered-lift conducting operations in accordance with subpart L to part 135 of this chapter.	(1) For powered-lift operating in wing-borne flight mode during the enroute phase of flight, under § 135.615(a)(3), (b), and (c) of this chapter, the following minimums apply: (i) For day operations: no less than 500 feet above the surface or no less than 500 feet horizontally from any obstacle; or (ii) For night operations: at an altitude no less than 1,000 feet above the highest obstacle within a horizontal distance of 5 miles from the course intended to be flown or, in designated mountainous terrain, no less than 2,000 feet above the highest obstacle within a horizontal distance of 5 miles from the course intended to be flown.

TABLE 1 TO § 194.306—Continued

Regulation	Applicability	Additional requirements or clarification
(vvv) Section 135.617 of this chapter.	Applies to powered-lift conducting operations in accordance with subpart L to part 135 of this chapter.	(2) For powered-lift operating in vertical-lift flight mode during the enroute phase of flight, under § 135.615(a)(3), (b), and (c) of this chapter, the following minimums apply: (i) No less than 300 feet for day operations. (ii) No less than 500 feet for night operations.
(www) Section 135.619 of this chapter.	Applies to powered-lift operators with 10 or more powered-lift, helicopters, or any combination thereof, assigned to the certificate holder's operations specifications for air ambulance operations.	
(xxx) Section 135.621 of this chapter.	Applies to powered-lift conducting operations in accordance with subpart L to part 135 of this chapter.	

[Docket FAA–2023–1275, Amdt. 194–1, 89 FR 92489, Nov. 21, 2024; Amdt. 194–1A, 90 FR 219, Jan. 3, 2025]

§ 194.307 Applicability of rules for eligible on-demand operations.

No person may operate a powered-lift in an eligible on-demand operation under part 135 of this chapter without complying with the requirements specified for the second in command of a fixed-wing aircraft contained in § 135.4(a)(3) of this chapter.

§ 194.308 Applicability of national air tour safety standards under part 136 of this chapter to powered-lift.

(a) Persons operating powered-lift in commercial air tours must continue to comply with rules applicable to all air-

craft in part 136 of this chapter, as applicable to the operation.

(b) Suitable landing area, as defined in § 136.1 of this chapter, applies to powered-lift conducting commercial air tours.

(c) Critical change of thrust for purposes of this section means a failure that would most adversely affect the performance or handling qualities of an aircraft.

(d) No person may operate a powered-lift in a commercial air tour unless that person complies with the regulations listed in the first column of table 1 to this section, notwithstanding their applicability to airplanes or rotorcraft, subject to the applicability provisions in the second column, and any additional requirements or clarification specified in the third column:

TABLE 1 TO § 194.308

Regulation	Applicability	Additional Requirements or Clarification
Part 136, Subpart A National Air Tour Safety Standards		
(1) Section 136.9	Applies to powered-lift used in commercial air tours over water beyond the shoreline.	(i) Section 136.9(b)(2) applies to powered-lift operating in wing-borne flight mode within power-off gliding distance to the shoreline for the duration of the time that the flight is over water. (ii) Section 136.9(b)(3), applies to multi-engine powered-lift that can be operated with the critical engine inoperative or while experiencing a critical change of thrust, at a weight that will allow it to climb, at least 50 feet a minute, at an altitude of 1,000 feet above the surface, as provided in the approved aircraft flight manual for that aircraft.
(2) Section 136.11	Applies to powered-lift used in commercial air tours over water beyond the shoreline.	(i) Section 136.11(a)(1) applies to single-engine powered-lift. (ii) Section 136.11(a)(2) applies to multi-engine powered-lift that cannot be operated with the critical engine inoperative or while experiencing a critical change of thrust, at a weight that will allow it to climb, at least 50 feet a minute, at an altitude of 1,000 feet above the surface, as provided in the approved aircraft flight manual for that aircraft.
(3) Section 136.13	Applies to powered-lift.	
(4) Section 136.75(a)	Applies to all single-engine powered-lift conducting air tours in Hawaii beyond the shore of any island.	
(5) Section 136.75(b)	Applies to powered-lift.	
(6) Section 136.75(c)	Applies to powered-lift with an Aircraft Flight Manual containing height velocity information.	Except for approach to and transition from a hover, and except for the purpose of takeoff and landing, the PIC of a powered-lift may only operate such aircraft at a combination of height and forward speed (including hover) that would permit a safe landing in the event of engine power loss or critical change of thrust, in accordance with the height-speed envelope for that powered-lift under current weight and aircraft altitude.

§ 194.309 Applicability of flight instruction; simulated instrument flight.

The requirement to hold the appropriate category and class rating in

§ 91.109(c)(1)(i) of this chapter is not applicable to operations conducted to meet alternate aeronautical experience requirements set forth in §§ 194.225, 194.227, and 194.229.

§ 194.310 Powered-lift in vertical-lift flight mode, flight recorder specifications under part 91 of this chapter.

TABLE 1 TO § 194.310

Parameters	Range	Installed system ¹ minimum accuracy (to recovered data)	Sampling interval (per second)	Resolution 3 read out
Relative Time (From Re- corded on Prior to Take- off).	4 hr minimum	±0.125% per hour	1	1 sec.
Indicated Airspeed	VM in to VD (KIAS) (min- imum airspeed signal attain- able with in- stalled pilot- static system).	±5% or ±10 kts., whichever is greater.	1	1 kt.
Altitude	— 1,000 ft. to 20,000 ft. pres- sure altitude.	±100 to ±700 ft. (see Table 1, TSO C51—a).	1	25 to 150 ft.
Magnetic Heading	360°	±5°	1	1°
Vertical Acceleration	— 3g to + 6g	±0.2g in addition to ±0.3g max- imum datum.	4 (or 1 per sec- ond where peaks, ref. to 1g are re- corded).	0.05g.
Longitudinal Acceleration ...	±1.0g	±1.5% max. range exclud- ing datum error of ±5%.	2	0.03g.
Pitch Attitude	100% of usable range.	±2°	1	0.8°.
Roll Attitude	±60 or 100% of usable range, whichever is greater.	±2°	1	0.8°.
Altitude Rate	±8,000 fpm	±10% Resolution 250 fpm below 12,000 ft. indi- cated.	1	250 fpm below 12,000.
<i>Engine Power, Each En- gine:</i>				
Main Rotor Speed	Maximum Range	±5%	1	1%. ²
Free or Power Turbine	Maximum Range	±5%	1	1%. ²
Engine Torque	Maximum Range	±5%	1	1%. ²
<i>Flight Control Hydraulic Pressure:</i>				
Primary (Discrete)	High/Low .....	.....	1.	
Secondary—if applica- ble (Discrete).	High/Low .....	.....	1.	
Radio Transmitter Key- ing (Discrete).	On/Off .....	.....	1.	
Autopilot Engaged (Discrete).	Engaged or Dis- engaged.	.....	1.	
SAS Status-Engaged (Discrete).	Engaged or Dis- engaged.	.....	1.	
SAS Fault Status (Dis- crete).	Fault/OK .....	.....	1.	
<i>Flight Controls:</i>				

TABLE 1 TO § 194.310—Continued

Parameters	Range	Installed system ¹ minimum accuracy (to recovered data)	Sampling interval (per second)	Resolution 3 read out
Pilot Inputted—Primary Controls (I.E. Ascent, descent, acceleration, and deceleration, heading and directional control for all axis).	Full range	±3%	2	1%. ²
Controllable Stabilator Position.	Full range	±3%	2	1%. ²

¹ When data sources are aircraft instruments (except altimeters) of acceptable quality to fly the aircraft the recording system excluding these sensors (but including all other characteristics of the recording system) shall contribute no more than half of the values in this column.

² Percent of full range.

§ 194.311 Powered-lift in wing-borne flight mode, flight recorder specifications under part 91 of this chapter.

TABLE 1 TO § 194.311

Parameters	Range	Installed system ¹ minimum accuracy (to recovered data)	Sampling interval (per second)	Resolution read out
Relative Time (From Recorded on Prior to Take-off).	8 hr minimum	±0.125% per hour	1	1 sec.
Indicated Airspeed	Vso to VD (KIAS)	±5% or ±10 kts., whichever is greater. Resolution 2 kts. below 175 KIAS.	1	1%. ³
Altitude	– 1,000 ft. to max cert. alt. of A/C.	±100 to ±700 ft. (see Table 1, TSO C51–a).	1	25 to 150 ft.
Magnetic Heading	360°	±5°	1	1.°
Vertical Acceleration	– 3g to + 6g	±0.2g in addition to ±0.3g maximum datum.	4 (or 1 per second where peaks, ref. to 1g are recorded).	0.03g.
Longitudinal Acceleration ...	±1.0g	±1.5% max. range excluding datum error of ±5%.	2	0.01g.
Pitch Attitude	100% of usable ..	±2°	1	0.8.°
Roll Attitude	±60° or 100% of usable range, whichever is greater.	±2°	1	0.8.°
Stabilizer Trim Position, or	Full Range	±3% unless higher uniquely required.	1	1%. ³
Pitch Control Position				

TABLE 1 TO § 194.311—Continued

Parameters	Range	Installed system ¹ minimum accuracy (to recovered data)	Sampling interval (per second)	Resolution read out
Engine Power, Each Engine:.	Full Range	±3% unless higher uniquely required.	1	1%. ³
Fan or N ¹ Speed or EPR or Cockpit indications Used for Aircraft Certification OR.	Maximum Range	±5%	1	1%. ³
Prop. speed and Torque (Sample Once/Sec as Close together as Practicable).	.....	.....	1 (prop Speed) ... 1 (torque)	1%. ³ 1%. ³
Altitude Rate ² (need depends on altitude resolution).	±8,000 fpm	±10%. Resolution 250 fpm below 12,000 ft. indicated..	1	250 fpm. below 12,000.
Angle of Attack ² (need depends on altitude resolution).	–20° to 40° or 100% of usable range.	±2°	1	0.8%. ³
Radio Transmitter Keying (Discrete).	On/Off .....	.....	1.	
TE Flaps (Discrete or Analog).	Each discrete position (U, D, T/O, AAP) OR.	.....	1.	
LE Flaps (Discrete or Analog).	Analog 0–100% range.	±3%	1	1%. ³
	Each discrete position (U, D, T/O, AAP) OR.	.....	1.	
Thrust Reverser, Each Engine (Discrete).	Analog 0–100% range.	±3°	1	1%. ³
	Stowed or full reverse.	.....		
Spoiler/Speedbrake (Discrete).	Stowed or out .....	.....	1.	
Autopilot Engaged (Discrete).	Engaged or Disengaged.	.....	1.	

¹ When data sources are aircraft instruments (except altimeters) of acceptable quality to fly the aircraft the recording system excluding these sensors (but including all other characteristics of the recording system) shall contribute no more than half of the values in this column.

² If data from the altitude encoding altimeter (100 ft. resolution) is used, then either one of these parameters should also be recorded. If, however, altitude is recorded at a minimum resolution of 25 feet, then these two parameters can be omitted.

³ Percent of full range.

§ 194.312 Powered-lift in vertical-lift flight mode, flight recorder specifications under part 135 of this chapter.

TABLE 1 TO § 194.312

Parameters	Range	Installed system ¹ minimum accuracy (to recovered data)	Sampling interval (per second)	Resolution read out
Relative time (from recorded on prior to take-off).	25 hr minimum ...	±0.125% per hour	1	1 sec.

TABLE 1 TO § 194.312—Continued

Parameters	Range	Installed system ¹ minimum accuracy (to recovered data)	Sampling interval (per second)	Resolution read out
Indicated airspeed	V_m in to V_D (KIAS) (min- imum airspeed signal attain- able with in- stalled pilot- static system).	$\pm 5\%$ or ± 10 kts., whichever is greater.	1	1 kt.
Altitude	– 1,000 ft. to 20,000 ft. pres- sure altitude.	± 100 to ± 700 ft. (see Table 1, TSO C51–a).	1	25 to 150 ft.
Magnetic heading	360°	$\pm 5^\circ$	1	1°.
Vertical acceleration	– 3g to + 6g	$\pm 0.2g$ in addition to $\pm 0.3g$ max- imum datum.	4 (or 1 per sec- ond where peaks, ref. to 1g are re- corded).	0.05g.
Longitudinal acceleration	$\pm 1.0g$	$\pm 1.5\%$ max. range exclud- ing datum error of $\pm 5\%$.	2	0.03g.
Pitch attitude	100% of usable range.	$\pm 2^\circ$	1	0.8°.
Roll attitude	$\pm 60^\circ$ or 100% of usable range, whichever is greater.	$\pm 2^\circ$	1	0.8°.
Altitude rate	$\pm 8,000$ fpm	$\pm 10\%$ Resolution 250 fpm below 12,000 ft. indi- cated.	1	250 fpm below 12,000.
<i>Engine Power, Each En- gine:</i>				
Main rotor speed	Maximum range	$\pm 5\%$	1	1%. ²
Free or power turbine ..	Maximum range	+ 5%	1	1%. ²
Engine torque	Maximum range	$\pm 5\%$	1	1%. ²
<i>Flight Control—Hydraulic Pressure:</i>				
Primary (discrete)	High/low .....	.....	1.	
Secondary—if applica- ble (discrete).	High/low .....	.....	1.	
Radio transmitter key- ing (discrete).	On/off .....	.....	1.	
Autopilot engaged (dis- crete).	Engaged or dis- engaged.	.....	1.	
SAS status—engaged (discrete).	Engaged/dis- engaged.	.....	1.	
SAS fault status (dis- crete).	Fault/OK .....	.....	1.	
<i>Flight Controls:</i>				
Primary Controls (I.E. Ascent, descent, ac- celeration, and de- celeration, heading and directional con- trol for all axis) ³ .	Full range	$\pm 3\%$	2	1%. ²

TABLE 1 TO § 194.312—Continued

Parameters	Range	Installed system ¹ minimum accuracy (to recovered data)	Sampling interval (per second)	Resolution read out
Controllable Stabilator Position ³ .	Full range	±3%	2	1%. ²

¹When data sources are aircraft instruments (except altimeters) of acceptable quality to fly the aircraft the recording system excluding these sensors (but including all other characteristics of the recording system) shall contribute no more than half of the values in this column.

²Percent of full range.

³For all aircraft manufactured on or after December 6, 2010, the sampling interval per second is 4.

§ 194.313 Powered-lift in wing-borne flight mode, flight recorder specification under part 135 of this chapter.

TABLE 1 TO § 194.313

Parameters	Range	Installed system ¹ minimum accuracy (to recovered data)	Sampling interval (per second)	Resolution read out
Relative time (from re- corded on prior to take- off).	25 hr minimum ...	±0.125% per hour	1	1 sec.
Indicated airspeed	V _{so} to V _D (KIAS)	±5% or ±10 kts., whichever is greater. Reso- lution 2 kts. below 175 KIAS.	1	1%. ³
Altitude	– 1,000 ft. to max cert. alt. of A/C.	±100 to ±700 ft. (see Table 1, TSO C51–a).	1	25 to 150
Magnetic heading	360°	±5°	1	1°
Vertical acceleration	–3g to + 6g	±0.2g in addition to ±0.3g max- imum datum.	4 (or 1 per sec- ond where peaks, ref. to 1g are re- corded).	0.03g.
Longitudinal acceleration	±1.0g	±1.5% max. range exclud- ing datum error of ±5%.	2	0.01g.
Pitch attitude	100% of usable ..	±2°	1	0.8°
Roll attitude	±60° or 100% of usable range, whichever is greater.	±2°	1	0.8°
Stabilizer trim position	Full range	±3% unless high- er uniquely re- quired.	1	1%. ³
Or Pitch control position ...	Full range	±3% unless high- er uniquely re- quired.	1	1%. ³
Engine Power, Each Engine Fan or N ₁ speed or EPR or cockpit indi- cations used for air- craft certification. Or	Maximum range	±5%	1	1%. ³

TABLE 1 TO § 194.313—Continued

Parameters	Range	Installed system ¹ minimum accuracy (to recovered data)	Sampling interval (per second)	Resolution read out
Prop. speed and torque (sample once/sec as close together as practicable).	.....	.....	1 (prop speed), 1 (torque).	
Altitude rate ² (need depends on altitude resolution).	±8,000 fpm	±10%. Resolution 250 fpm below 12,000 ft. indi- cated.	1	250 fpm Below 12,000
Angle of attack ² (need depends on altitude resolution).	–20° to 40° or of usable range.	±2°	1	0.8%. ³
Radio transmitter key- ing (discrete).	On/off .....	.....	1.	
TE flaps (discrete or analog).	Each discrete po- sition (U, D, T/ O, AAP). Or. Analog 0–100% range.	 ±3°	1. 1	1%. ³
LE flaps (discrete or analog).	Each discrete po- sition (U, D, T/ O, AAP). Or. Analog 0–100% range.	 ±3°	1. 1	1%. ³
Thrust reverser, each engine (Discrete).	Stowed or full re- verse.	.....	1.	
Spoiler/speedbrake (discrete).	Stowed or out .....	.....	1.	
Autopilot engaged (dis- crete).	Engaged or dis- engaged.	.....	1.	

¹ When data sources are aircraft instruments (except altimeters) of acceptable quality to fly the aircraft the recording system excluding these sensors (but including all other characteristics of the recording system) shall contribute no more than half of the values in this column.

² If data from the altitude encoding altimeter (100 ft. resolution) is used, then either one of these parameters should also be recorded. If, however, altitude is recorded at a minimum resolution of 25 feet, then these two parameters can be omitted.

³ Percent of full range.

Subpart D—Maintenance, Preventive Maintenance, Rebuilding, and Alteration Requirements for Powered-Lift Under Part 43 of This Chapter

§ 194.401 Applicability.

Unless otherwise specified by this part, powered-lift must continue to comply with rules applicable to all aircraft in part 43 of this chapter.

§ 194.402 Maintenance provisions.

The following maintenance provisions under part 43 of this chapter that

pertain to rotorcraft also apply to powered-lift:

(a) Section 43.3(h) of this chapter applies to certificate holders operating powered-lift under part 135 of this chapter in a remote area; and

(b) In lieu of complying with § 43.15(b) of this chapter, each person performing an inspection required by part 91 of this chapter on a powered-lift shall inspect critical parts in accordance with the maintenance manual or Instruction for Continuous Airworthiness, or as otherwise approved by the Administrator.

(1) A “critical part” has the same meaning as provided in §§27.602 and 29.602 of this chapter.

(2) [Reserved]

APPENDIX A TO PART 194—MINIMUM REQUIREMENTS FOR A PILOT TRAINING PROGRAM IN A POWERED-LIFT ORIGINALLY TYPE CERTIFICATED OR SEEKING TYPE CERTIFICATION WITH ONE SET OF CONTROLS AND A SINGLE PILOT STATION

1. APPLICABILITY

(a) This appendix prescribes the minimum requirements to apply for a pilot training program for the following ratings in a powered-lift originally type certificated or seeking type certification with one set of controls and a single pilot station:

- (1) Powered-lift Category;
- (2) Powered-lift Type;
- (3) Instrument-Powered-lift.

(b) Notwithstanding the exceptions in §194.211, a person utilizing the alternate pathway set forth in this appendix must apply for all three ratings simultaneously.

2. ELIGIBILITY

(a) To utilize the alternate framework set forth by this appendix, an applicant must be qualified in accordance with the requirements set forth by §194.215(a).

(b) The alternate framework set forth in this appendix may only be provided under a part 135, 141, or 142 approved training program.

3. GROUND TRAINING

(a) An applicant must receive and log all required ground training set forth by §§61.63(b) and 61.65(b) of this chapter prior to receiving training in accordance with section 4. of this appendix.

(b) Following the required ground training as set forth in paragraph (a) of this section, an applicant must successfully complete a written or oral check administered by the training provider.

4. SIMULATOR TRAINING IN A LEVEL C OR HIGHER FULL FLIGHT SIMULATOR REPRESENTATIVE OF A POWERED-LIFT WITH SINGLE CONTROLS AND A SINGLE PILOT STATION

(a) In lieu of flight training in a powered-lift with single controls and a single pilot station, an applicant seeking a powered-lift category rating, instrument rating, and a type rating may complete all applicable flight training requirements prescribed in part 61 of this chapter or the corresponding framework prescribed in §§194.217 through 194.235 (except for the cross-country requirements in §194.233), as applicable, in a qualified Level C or higher full flight simulator

representative of the powered-lift type with single controls and a single pilot station.

(b) Following the training set forth in paragraph (a) of this section, the applicant must satisfactorily accomplish a check with a check pilot, a training center evaluator, an authorized instructor, instructor pilot, an FAA aviation safety inspector, or another person authorized by the FAA to administer this check in a qualified Level C or higher full flight simulator in accordance with the approved training program. The check must consist of oral questioning followed by the satisfactory performance of all the maneuvers and procedures required for the issuance of a commercial pilot certificate with a powered-lift category rating, for the issuance of an instrument-powered-lift rating and for the issuance of a powered-lift type rating, except those tasks waived in accordance with §194.207(c).

5. AIRCRAFT FAMILIARITY FLIGHT

(a) Within 90 days of an applicant's successful completion of the check set forth by section 4.(b) of this appendix, the applicant must observe an aircraft familiarity flight with an authorized instructor.

(b) The aircraft familiarity flight must include the following components:

(1) The authorized instructor must demonstrate the flight maneuvers and procedures required for the issuance of a commercial pilot certificate with a powered-lift category rating, for the issuance of an instrument-powered-lift rating and for the issuance of a powered-lift type rating, except those tasks waived in accordance with §194.207(c), in the aircraft in flight, and

(2) The applicant must have unobstructed visual sight of the controls and instrumentation and maintain active communication with the authorized instructor for the entire flight.

(c) The aircraft familiarity flight may occur during one flight or over multiple flights.

(d) Following successful completion of the aircraft familiarity flight, the authorized instructor may endorse the applicant to act as pilot in command of the specific powered-lift to accomplish the demonstration flight with an authorized instructor on board as set forth in section 6.(a) of this appendix. The endorsement is valid for 90 days from the date of successful completion of the full flight simulator check set forth by section 4.(b) of this appendix.

6. DEMONSTRATION AND SOLO FLIGHTS

(a) *Demonstration flight.*

(1) After an applicant receives an endorsement to act as PIC in accordance with section 5.(d) of this appendix, the applicant must complete a demonstration flight under

the direct observation of an authorized instructor.

(2) The demonstration flight must include the following components:

(i) The applicant must demonstrate the flight maneuvers and procedures required for the issuance of a commercial pilot certificate with a powered-lift category rating, for the issuance of an instrument-powered-lift rating and for the issuance of a powered-lift type rating, except those tasks waived in accordance with §194.207(c), in the aircraft in flight, and

(ii) The authorized instructor must have unobstructed visual sight of the controls and instrumentation and maintain active communication with the applicant for the entire flight.

(3) The demonstration flight may occur during one flight or over multiple flights.

(4) Upon determination that the applicant has demonstrated satisfactory proficiency in the aircraft, the check pilot, training center evaluator, authorized instructor, instructor pilot, FAA aviation safety inspector, or another person authorized by the FAA to administer this check may endorse the applicant to act as pilot in command of the specific powered-lift to conduct solo flight in accordance with paragraph (c) of this section. The endorsement is valid for 90 days from the day the demonstration flight is successfully completed.

(b) *Failure to complete demonstration flight during endorsement period.*

(1) If the applicant does not successfully complete the demonstration flight in paragraph (a) of this section within the 90-day endorsement period, the applicant may receive another endorsement by:

(i) Completing a demonstration of proficiency in the full flight simulator consisting of the tasks and maneuvers set forth by section 10. of this appendix, in addition to any maneuvers or procedures deemed necessary by the check pilot, training center evaluator, authorized instructor, instructor pilot, an FAA aviation safety inspector, or other person authorized by the FAA to administer this check to ensure proficiency, and

(ii) Completing an aircraft familiarity flight meeting the requirements of section 5.(b) of this appendix.

(2) After the applicant meets the requirements of paragraph (b)(1) of this section, the applicant may receive another endorsement for the applicant to act as pilot in command of the specific powered-lift to accomplish the demonstration flight with an authorized instructor on board as set forth in section 6.(a) of this appendix. This endorsement is valid for 90 days from the day the demonstration of proficiency in the full flight simulator was successfully completed.

(c) *Solo Flights.* After an applicant receives an endorsement to conduct solo flights in ac-

cordance with section 6.(a)(4) of this appendix, the applicant must complete 20 hours of solo flight in the aircraft, which must include:

(1) 10 hours of solo flight time in accordance with §61.129(e)(4) or the corresponding alternate provision set forth in §§194.217 through 194.231 of this part;

(2) 10 hours of solo flight time that includes the maneuvers and procedures required for the issuance of a commercial pilot certificate with a powered-lift category rating, for the issuance of an instrument-powered-lift rating and for the issuance of a powered-lift type rating; and

(3) The alternate cross-country aeronautical experience requirements prescribed in §194.233 of this part.

(d) *Lapse of endorsement for solo flights.* If the applicant does not successfully complete the solo flight time required in paragraph (c) of this section within the 90-day endorsement period, the applicant may receive another 90-day endorsement by satisfying the requirements of paragraph (d)(1) or (2) of this section, as applicable.

(1) If the applicant seeks to renew the endorsement for another 90-day period and is within the 90-day period of the original endorsement, the applicant must complete a demonstration flight consisting of the tasks and maneuvers set forth by section 10. of this appendix, in addition to any maneuvers or procedures deemed necessary by the check pilot, training center evaluator, authorized instructor, instructor pilot, FAA aviation safety inspector, or another person authorized by the FAA to ensure proficiency.

(2) If the applicant seeks another endorsement outside the 90-day period of the original endorsement, the applicant must:

(i) The applicant must satisfactorily complete a demonstration of proficiency in the full flight simulator consisting of the tasks and maneuvers set forth by section 10. of this appendix, in addition to any maneuvers or procedures deemed necessary by the authorized instructor to ensure proficiency, successful completion of which will result in a 90-day endorsement to accomplish a demonstration flight with an authorized instructor on board; and

(ii) The applicant must complete a demonstration flight with a check pilot, training center evaluator, authorized instructor, instructor pilot, FAA aviation safety inspector, or another person authorized by the FAA to administer this check consisting of the tasks and maneuvers set forth by section 10. of this appendix, in addition to any maneuvers or procedures deemed necessary by the authorized instructor to ensure proficiency.

7. PRACTICAL TEST

(a) The applicant may meet the training requirements of §61.129(e)(3)(iv) in a Level C or higher FFS.

(b) A person who uses a flight simulator or flight training device for any portion of the practical test in accordance with §61.64(a) of this chapter after training in accordance with this appendix and does not meet the requirements of §61.64(e) of this chapter will—

(1) Receive a limitation that states “the certificate is subject to certain pilot in command limitations,” in lieu of the limitation set forth by §61.64(f); and

(2) Be restricted from the carriage of persons or property other than necessary for the conduct of the flight.

(c) The limitation described under paragraph (b) of this section may be removed from the pilot certificate by meeting the requirements set forth in section 8. of this appendix.

8. SUPERVISED OPERATING EXPERIENCE FOR A POWERED-LIFT WITH SINGLE CONTROLS AND A SINGLE PILOT STATION

(a) The limitation set forth in paragraph 7.(b) of this appendix may be removed if the pilot complies with the following:

(1) Performs 10 hours of flight time in an aircraft of category and type for which the limitation applies under the observation of a pilot who holds a category and type rating without limitations for the aircraft, maintaining full communication with the observing pilot;

(2) Logs each flight and the observing pilot attests in writing to each flight; and

(3) Presents evidence of the supervised operating experience to any examiner or Flight Standards office to have the limitation removed.

(b) The flight time required in paragraph (a)(1) of this section must include a cross-country flight in a powered-lift under instrument flight rules on a flight plan filed with an air traffic control facility that involves—

(i) A flight of at least 100 nautical miles along airways or by directed routing from an air traffic control facility;

(ii) An instrument approach at each airport; and

(iii) Three different kinds of approaches with the use of navigation systems.

(c) The observing pilot must have unobstructed visual sight of the controls and instrumentation.

9. DEVIATION AUTHORITY

The Administrator may authorize a deviation from the simulator qualification requirement in section 4. of this appendix stipulating that training must be completed in a qualified Level C or higher full flight simulator upon a determination by the Administrator that—

(a) The alternative training device is of adequate fidelity to be used as a substitution for in-aircraft flight training; and

(b) The effectiveness and objectives of the training program can be met utilizing the alternative training device.

10. MANEUVERS AND PROCEDURES REQUIRED FOR CERTAIN FLIGHTS PRESCRIBED BY THIS APPENDIX

This section sets forth the maneuvers and procedures required for flights required in accordance with sections 6.(b)(1)(i), 6.(d)(1), 6.(d)(2)(i), and 6.(d)(2)(ii) of this appendix, except those maneuvers and procedures under tasks waived in accordance with §194.207(c).

(a) Proper flight preparation procedures, including preflight planning and preparation, powerplant operation, and aircraft systems;

(b) Taxiing or surface operations, including runups;

(c) Takeoffs and landings, including normal and crosswind;

(d) Straight and level flight, and turns in both directions;

(e) Climbs and climbing turns;

(f) Airport traffic patterns, including entry and departure procedures;

(g) Collision avoidance, windshear avoidance, and wake turbulence avoidance;

(h) Descents with and without turns;

(i) Flight at various airspeeds from cruise to slow flight;

(j) Stall entries from various flight attitudes and power combinations with recovery initiated at the first indication of a stall, and recovery from a full stall;

(k) Emergency procedures and equipment malfunctions;

(l) Ground reference maneuvers;

(m) Approaches to a landing with simulated engine malfunctions;

(n) Go-arounds;

(o) Approaches to the landing area;

(p) Hovering and hovering turns; and

(q) For a multiengine powered-lift, simulated one-engine-inoperative approaches and landings.

SUBCHAPTER M [RESERVED]