

# Federal Aviation Regulations needed for Private Pilot Examination

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FAR Part 61 Airman Training

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PART 103-Ultralight Vehicles

**Data is current as of March 3, 2017**

## FAR Part 61 Airman Training

### Subpart A—General

#### **§61.3 Requirement for certificates, ratings, and authorizations.**

(a) *Required pilot certificate for operating a civil aircraft of the United States.* No person may serve as a required pilot flight crewmember of a civil aircraft of the United States, unless that person:

(1) Has in the person's physical possession or readily accessible in the aircraft when exercising the privileges of that pilot certificate or authorization

(i) A pilot certificate issued under this part and in accordance with §61.19;

(ii) A special purpose pilot authorization issued under §61.77;

(iii) A temporary certificate issued under §61.17;

(iv) A document conveying temporary authority to exercise certificate privileges issued by the Airmen Certification Branch under §61.29(e); or

(v) When operating an aircraft within a foreign country, a pilot license issued by that country may be used.

(2) Has a photo identification that is in that person's physical possession or readily accessible in the aircraft when exercising the privileges of that pilot certificate or authorization. The photo identification must be a:

(i) Driver's license issued by a State, the District of Columbia, or territory or possession of the United States;

(ii) Government identification card issued by the Federal government, a State, the District of Columbia, or a

territory or possession of the United States;

(iii) U.S. Armed Forces' identification card;

(iv) Official passport;

(v) Credential that authorizes unescorted access to a security identification display area at an airport regulated under 49 CFR part 1542; or

(vi) Other form of identification that the Administrator finds acceptable.

(b) *Required pilot certificate for operating a foreign-registered aircraft within the United States.* No person may serve as a required pilot flight crewmember of a civil aircraft of foreign registry within the United States, unless—

(1) That person's pilot certificate or document issued under §61.29(e) is in that person's physical possession or readily accessible in the aircraft when exercising the privileges of that pilot certificate; and

(2) Has been issued in accordance with this part, or has been issued or validated by the country in which the aircraft is registered.

(c) Medical certificate.

(1) A person may serve as a required pilot flight crewmember of an aircraft only if that person **holds the appropriate medical certificate** issued under part 67 of this chapter, or other documentation acceptable to the FAA, that is in that person's physical possession or readily accessible in the aircraft. Paragraph (c)(2) of this section provides certain **exceptions** to the requirement to hold a medical certificate.

(2) A person is not required to meet the requirements of paragraph (c)(1) of this section if that person—

(i) Is exercising the privileges of a student pilot certificate while seeking a pilot certificate with a **glider category** rating, a balloon class rating, or glider or balloon privileges;

(ii) Is exercising the privileges of a student pilot certificate while seeking a **sport pilot certificate** with other than glider or balloon privileges and holds a U.S. driver's license;

(iii) Is exercising the privileges of a student pilot certificate while seeking a pilot certificate with a **weight-shift-control aircraft** category rating or a powered parachute category rating and holds a U.S. driver's license;

(iv) Is exercising the privileges of a sport pilot certificate with glider or **balloon** privileges;

(v) Is exercising the privileges of a sport pilot certificate with other than glider or balloon privileges and holds a U.S. driver's license. *A person who has applied for or held a medical certificate may exercise the privileges of a sport pilot certificate using a U.S. driver's license only if that person—*

(A) *Has been **found eligible for the issuance of at least a third-class airman medical certificate** at the time of his or her most recent application; and*

(B) *Has **not had his or her most recently issued medical certificate suspended or revoked** or most recent Authorization for a Special Issuance of a Medical Certificate withdrawn.*

(vi) *Is holding a pilot certificate with a balloon class rating and is piloting or providing training in a balloon as*

*appropriate;*

*(vii) Is holding a pilot certificate or a flight instructor certificate with a glider category rating, and is piloting or providing training in a glider, as appropriate;*

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(I) **Inspection of certificate.** Each person who holds an airman certificate, medical certificate, authorization, or license required by this part **must present it and their photo identification** as described in paragraph (a)(2) of this section for inspection upon a request from:

- (1) The **Administrator**;
- (2) An authorized **representative of the National Transportation Safety Board**;
- (3) Any **Federal, State, or local law enforcement officer**; or
- (4) An authorized representative of the **Transportation Security Administration**.

#### **§61.4 Qualification and approval of flight simulators and flight training devices.**

(a) Except as specified in paragraph (b) or (c) of this section, each flight simulator and flight training device used for training, and for which an airman is to receive credit to satisfy any training, testing, or checking requirement under this chapter, must be qualified and **approved by the Administrator** for—

- (1) The training, testing, and checking for which it is used;
- (2) Each particular maneuver, procedure, or crewmember function performed; and
- (3) The representation of the specific category and class of aircraft, type of aircraft, particular variation within the type of aircraft, or set of aircraft for certain flight training devices.

(b) Any device used for flight training, testing, or checking that has been determined to be acceptable to or approved by the Administrator prior to August 1, 1996, which can be shown to function as originally designed, is considered to be a flight training device, provided it is used for the same purposes for which it was originally accepted or approved and only to the extent of such acceptance or approval.

(c) The Administrator may approve a device other than a flight simulator or flight training device for specific purposes.

#### **§61.5 Certificates and ratings issued under this part.**

(a) The following certificates are issued under this part to an applicant who satisfactorily accomplishes the training and certification requirements for the certificate sought:

- (1) **Pilot certificates**—
  - (i) Student pilot.
  - (ii) Sport pilot.

(iii) Recreational pilot.

(iv) Private pilot.

(v) Commercial pilot.

(vi) Airline transport pilot.

(2) Flight instructor certificates.

(3) Ground instructor certificates.

(b) The following ratings are placed on a pilot certificate (other than student pilot) when an applicant satisfactorily accomplishes the training and certification requirements for the rating sought:

(1) **Aircraft category ratings**—

(i) Airplane.

(ii) Rotorcraft.

(iii) Glider.

(iv) Lighter-than-air.

(v) Powered-lift.

(vi) Powered parachute.

(vii) Weight-shift-control aircraft.

(2) **Airplane class ratings**—

(i) Single-engine land.

(ii) Multiengine land.

(iii) Single-engine sea.

(iv) Multiengine sea.

(3) **Rotorcraft class ratings**—

(i) Helicopter.

(ii) Gyroplane.

(4) **Lighter-than-air class ratings**—

(i) Airship.

(ii) Balloon.

(5) Weight-shift-control aircraft class ratings—

(i) Weight-shift-control aircraft land.

(ii) Weight-shift-control aircraft sea.

(6) Powered parachute class ratings—

(i) Powered parachute land.

(ii) Powered parachute sea.

(7) Aircraft type ratings—

(i) Large aircraft other than lighter-than-air.

(ii) Turbojet-powered airplanes.

(iii) Other aircraft type ratings specified by the Administrator through the aircraft type certification procedures.

(iv) Second-in-command pilot type rating for aircraft that is certificated for operations with a minimum crew of at least two pilots.

#### **§61.15 Offenses involving alcohol or drugs.**

(a) A **conviction** for the violation of any Federal or State statute relating to the growing, processing, manufacture, sale, disposition, possession, transportation, or importation of narcotic drugs, marijuana, or depressant or stimulant drugs or substances is grounds for:

(1) **Denial of an application** for any certificate, rating, or authorization issued under this part for a period of up to 1 year after the date of final conviction; or

(2) **Suspension or revocation** of any certificate, rating, or authorization issued under this part.

(b) Committing an act prohibited by §91.17(a) or §91.19(a) of this chapter is grounds for:

(1) Denial of an application for a certificate, rating, or authorization issued under this part for a period **of up to 1 year after the date of that act**; or

(2) Suspension or revocation of any certificate, rating, or authorization issued under this part.

(c) For the purposes of paragraphs (d), (e), and (f) of this section, a motor vehicle action means:

(1) A **conviction after November 29, 1990, for the violation of any Federal or State statute relating to the operation of a motor vehicle** while intoxicated by alcohol or a drug, while impaired by alcohol or a drug, or while under the influence of alcohol or a drug;

(2) The **cancellation, suspension, or revocation** of a license to operate a motor vehicle after November 29, 1990, for a cause related to the operation of a motor vehicle while intoxicated by alcohol or a drug, while impaired by

alcohol or a drug, or while under the influence of alcohol or a drug; or

(3) The denial after November 29, 1990, of an application for a license to operate a motor vehicle for a cause related to the operation of a motor vehicle while intoxicated by alcohol or a drug, while impaired by alcohol or a drug, or while under the influence of alcohol or a drug.

(d) Except for a motor vehicle action that results from the same incident or arises out of the same factual circumstances, a motor vehicle action occurring within 3 years of a previous motor vehicle action is grounds for:

(1) Denial of an application for any certificate, rating, or authorization issued under this part for a period of up to 1 year after the date of the last motor vehicle action; or

(2) Suspension or revocation of any certificate, rating, or authorization issued under this part.

(e) Each person holding a certificate issued under this part shall provide a written report of each motor vehicle action to the FAA, Civil Aviation Security Division (AMC-700), P.O. Box 25810, Oklahoma City, OK 73125, not later than 60 days after the motor vehicle action. The report must include:

(1) The person's name, address, date of birth, and airman certificate number;

(2) The type of violation that resulted in the conviction or the administrative action;

(3) The date of the conviction or administrative action;

(4) The State that holds the record of conviction or administrative action; and

(5) A statement of whether the motor vehicle action resulted from the same incident or arose out of the same factual circumstances related to a previously reported motor vehicle action.

(f) Failure to comply with paragraph (e) of this section is grounds for:

(1) Denial of an application for any certificate, rating, or authorization issued under this part for a period of up to 1 year after the date of the motor vehicle action; or

(2) Suspension or revocation of any certificate, rating, or authorization issued under this part.

#### **§61.16 Refusal to submit to an alcohol test or to furnish test results.**

A refusal to submit to a test to indicate the percentage by weight of alcohol in the blood, when requested by a law enforcement officer in accordance with §91.17(c) of this chapter, or a refusal to furnish or authorize the release of the test results requested by the Administrator in accordance with §91.17(c) or (d) of this chapter, is grounds for:

(a) Denial of an application for any certificate, rating, or authorization issued under this part for a period of up to 1 year after the date of that refusal; or

(b) Suspension or revocation of any certificate, rating, or authorization issued under this part.

#### **§61.18 Security disqualification.**

(a) *Eligibility standard.* No person is eligible to hold a certificate, rating, or authorization issued under this part when the Transportation Security Administration (TSA) has notified the FAA in writing that the person poses a

security threat.

(b) *Effect of the issuance by the TSA of an Initial Notification of Threat Assessment.*

(1) The FAA will hold in abeyance pending the outcome of the TSA's final threat assessment review an application for any certificate, rating, or authorization under this part by any person who has been issued an Initial Notification of Threat Assessment by the TSA.

(2) The FAA will suspend any certificate, rating, or authorization issued under this part after the TSA issues to the holder an Initial Notification of Threat Assessment.

(c) *Effect of the issuance by the TSA of a Final Notification of Threat Assessment.*

(1) The FAA will deny an application for any certificate, rating, or authorization under this part to any person who has been issued a Final Notification of Threat Assessment.

(2) The FAA will revoke any certificate, rating, or authorization issued under this part after the TSA has issued to the holder a Final Notification of Threat Assessment.

#### **§61.19 Duration of pilot and instructor certificates and privileges.**

(a) *General.*

(1) The holder of a certificate with an expiration date may not, after that date, exercise the privileges of that certificate.

(2) Except for a certificate issued with an expiration date, a pilot certificate is valid unless it is surrendered, suspended, or revoked.

(b) **Paper student pilot certificate.** A student pilot certificate issued under this part prior to April 1, 2016 expires:

(1) For student pilots who have not reached their 40th birthday, 60 calendar months after the month of the date of examination shown on the medical certificate.

(2) For student pilots who have reached their 40th birthday, 24 calendar months after the month of the date of examination shown on the medical certificate.

(c) **Pilot certificates.**

(1) A pilot certificate (including a student pilot certificate issued after April 1, 2016 issued under this part is issued without a specific expiration date.

#### **§61.23 Medical certificates: Requirement and duration.**

(a) Operations requiring a medical certificate. Except as provided in paragraphs (b) and (c) of this section,

(3) Must hold at least a **third-class** medical certificate—

(i) When exercising the privileges of a private pilot certificate;

(ii) When exercising the privileges of a recreational pilot certificate;

(iii) When exercising the privileges of a **student pilot certificate**;

(iv) When exercising the privileges of a flight instructor certificate and acting as the pilot in command;

(v) When exercising the privileges of a flight instructor certificate and serving as a required pilot flight crewmember;

(vi) When taking a practical test in an aircraft for a recreational pilot, private pilot, commercial pilot, or airline transport pilot certificate, or for a flight instructor certificate; or

(vii) When performing the duties as an Examiner in an aircraft when administering a practical test or proficiency check for an airman certificate, rating, or authorization.

**(c) Operations requiring either a medical certificate or U.S. driver's license.**

(1) **A person must hold and possess either a medical certificate issued under part 67 of this chapter or a U.S. driver's license** when—

(i) Exercising the privileges of **a student pilot certificate while seeking sport pilot privileges** in a light-sport aircraft other than a glider or balloon;

(ii) Exercising the privileges of **a sport pilot certificate in a light-sport aircraft** other than a glider or balloon;

(iii) Exercising the privileges of a flight instructor certificate with a sport pilot rating while acting as pilot in command or serving as a required flight crewmember of a light-sport aircraft other than a glider or balloon; or

(iv) Serving as an Examiner and administering a practical test for the issuance of a sport pilot certificate in a light-sport aircraft other than a glider or balloon.

(2) **A person using a U.S. driver's license** to meet the requirements of this paragraph must—

(i) **Comply with each restriction and limitation imposed by that person's U.S. driver's license and any judicial or administrative order applying to the operation of a motor vehicle;**

(ii) **Have been found eligible** for the issuance of at least a third-class airman medical certificate at the time of his or her most recent application (if the person has applied for a medical certificate);

(iii) **Not have had his or her most recently issued medical certificate (if the person has held a medical certificate) suspended or revoked or most recent Authorization for a Special Issuance of a Medical Certificate withdrawn; and**

(iv) **Not know or have reason to know of any medical condition that would make that person unable to operate a light-sport aircraft in a safe manner.**

(d) **Duration of a medical certificate.** Use the following table to determine duration for each class of medical certificate:

| If you hold                           | And on the date of examination for your most recent medical certificate you were | And you are conducting an operation requiring  | Then your medical certificate expires, for that operation, at the end of the last day of the |
|---------------------------------------|--|--|--|
| (1) A first-class medical certificate | (i) Under age 40   | an airline transport pilot certificate for pilot-in-command privileges, or for second-in-command privileges in a flag or supplemental operation in part 121 requiring three or more pilots   | 12th month after the month of the date of examination shown on the medical certificate.      |
|                                       | (ii) Age 40 or older   | an airline transport pilot certificate for pilot-in-command privileges, for second-in-command privileges in a flag or supplemental operation in part 121 requiring three or more pilots, or for a pilot flightcrew member in part 121 operations who has reached his or her 60th birthday.   | 6th month after the month of the date of examination shown on the medical certificate.       |
|                                       | (iii) Any age  | a commercial pilot certificate or an air traffic control tower operator certificate  | 12th month after the month of the date of examination shown on the medical certificate.      |
|                                       | (iv) Under age 40  | a recreational pilot certificate, a private pilot certificate, a flight instructor certificate (when acting as pilot in command or a required pilot flight crewmember in operations other than glider or balloon), a student pilot certificate, or a sport pilot certificate (when not using a U.S. driver's license as medical qualification) | 60th month after the month of the date of examination shown on the medical certificate.      |
|                                       | (v) Age 40 or older  | a recreational pilot certificate, a private pilot certificate, a flight instructor certificate (when acting as pilot in command or a required pilot flight crewmember in operations other than glider or balloon), a student pilot certificate, or a sport pilot certificate (when not using a U.S. driver's license as medical qualification) | 24th month after the month of the date of examination shown on the medical certificate.      |

|  |                                    |  |  |
|--|------------------------------------|--|--|
| (2) A second-class medical certificate       | (i) Any age                        | an airline transport pilot certificate for second-in-command privileges (other than the operations specified in paragraph (d)(1) of this section), a commercial pilot certificate, or an air traffic control tower operator certificate  | 12th month after the month of the date of examination shown on the medical certificate.        |
|  | (ii) Under age 40                  | a recreational pilot certificate, a private pilot certificate, a flight instructor certificate (when acting as pilot in command or a required pilot flight crewmember in operations other than glider or balloon), a student pilot certificate, or a sport pilot certificate (when not using a U.S. driver's license as medical qualification) | 60th month after the month of the date of examination shown on the medical certificate.        |
|  | (iii) Age 40 or older              | a recreational pilot certificate, a private pilot certificate, a flight instructor certificate (when acting as pilot in command or a required pilot flight crewmember in operations other than glider or balloon), a student pilot certificate, or a sport pilot certificate (when not using a U.S. driver's license as medical qualification) | 24th month after the month of the date of examination shown on the medical certificate.        |
| <b>(3) A third-class medical certificate</b> | (i) <b><u>Under age 40</u></b>     | a recreational pilot certificate, a private pilot certificate, a flight instructor certificate (when acting as pilot in command or a required pilot flight crewmember in operations other than glider or balloon), a student pilot certificate, or a sport pilot certificate (when not using a U.S. driver's license as medical qualification) | <b>60th month after the month of the date of examination shown on the medical certificate.</b> |
|  | (ii) <b><u>Age 40 or older</u></b> | a recreational pilot certificate, a private pilot certificate, a flight instructor certificate (when acting as pilot in command or a required pilot flight crewmember in operations other than glider or balloon), a student pilot certificate, or a sport pilot certificate (when not using a U.S. driver's license as medical qualification) | <b>24th month after the month of the date of examination shown on the medical certificate.</b> |

**§61.25 Change of name.**

**§61.29 Replacement of a lost or destroyed airman or medical certificate or knowledge test report.**

(a) A request for the replacement of a lost or destroyed airman certificate issued under this part must be made:

(1) By letter to the Department of Transportation, FAA, Airmen Certification Branch, P.O. Box 25082, Oklahoma City, OK 73125, and must be accompanied by a check or money order for the appropriate fee payable to the FAA; or

(2) In any other manner and form approved by the Administrator including a request online to Airmen Services at <http://www.faa.gov>, and must be accompanied by acceptable form of payment for the appropriate fee.

(b) A request for the replacement of a lost or destroyed medical certificate must be made:

(1) By letter to the Department of Transportation, FAA, Aerospace Medical Certification Division, P.O. Box 26200, Oklahoma City, OK 73125, and must be accompanied by a check or money order for the appropriate fee payable to the FAA; or

**§61.35 Knowledge test: Prerequisites and passing grades.**

(a) An applicant for a knowledge test must have:

(1) **Received an endorsement, if required by this part, from an authorized instructor certifying that the applicant accomplished the appropriate ground-training or a home-study course required by this part for the certificate or rating sought and is prepared for the knowledge test;**

**§61.37 Knowledge tests: Cheating or other unauthorized conduct.**

(a) An applicant for a knowledge test may not:

(1) Copy or intentionally remove any knowledge test;

(2) Give to another applicant or receive from another applicant any part or copy of a knowledge test;

(3) Give assistance on, or receive assistance on, a knowledge test during the period that test is being given;

(4) Take any part of a knowledge test on behalf of another person;

(5) Be represented by, or represent, another person for a knowledge test;

(6) Use any material or aid during the period that the test is being given, unless specifically authorized to do so by the Administrator; and

(7) Intentionally cause, assist, or participate in any act prohibited by this paragraph.

(b) An applicant who the Administrator finds has committed an act prohibited by paragraph (a) of this section is prohibited, for 1 year after the date of committing that act, from:

(1) Applying for any certificate, rating, or authorization issued under this chapter; and

(2) Applying for and taking any test under this chapter.

(c) Any certificate or rating held by an applicant may be suspended or revoked if the Administrator finds that person has committed an act prohibited by paragraph (a) of this section

### **§61.39 Prerequisites for practical tests.**

(a) Except as provided in paragraphs (b), (c), and (e) of this section, to be eligible for a practical test for a certificate or rating issued under this part, an applicant must:

(1) Pass the required knowledge test:

(i) Within the 24-calendar-month period preceding the month the applicant completes the practical test, if a knowledge test is required; or

(ii) Within the 60-calendar month period preceding the month the applicant completes the practical test for those applicants who complete the airline transport pilot certification training program in §61.156 and pass the knowledge test for an airline transport pilot certificate with a multiengine class rating after July 31, 2014;

(2) Present the knowledge test report at the time of application for the practical test, if a knowledge test is required;

(3) Have satisfactorily accomplished the required training and obtained the aeronautical experience prescribed by this part for the certificate or rating sought;

(4) Hold at least a third-class medical certificate, if a medical certificate is required;

(5) Meet the prescribed age requirement of this part for the issuance of the certificate or rating sought;

(6) Have an endorsement, if required by this part, in the applicant's logbook or training record that has been signed by an authorized instructor who certifies that the applicant—

(i) Has received and logged training time within 2 calendar months preceding the month of application in preparation for the practical test;

(ii) Is prepared for the required practical test; and

(iii) Has demonstrated satisfactory knowledge of the subject areas in which the applicant was deficient on the airman knowledge test; and

(7) Have a completed and signed application form.

### **§61.49 Retesting after failure.**

(a) An applicant for a knowledge or practical test who fails that test may reapply for the test only after the applicant has received:

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

(2) An endorsement from an authorized instructor who gave the applicant the additional training.

#### **§61.51 Pilot logbooks.**

(a) *Training time and aeronautical experience.* Each person must document and record the following time in a manner acceptable to the Administrator:

(1) Training and aeronautical experience used to meet the requirements for a certificate, rating, or flight review of this part.

(2) The aeronautical experience required for meeting the recent flight experience requirements of this part.

(b) *Logbook entries.* For the purposes of meeting the requirements of paragraph (a) of this section, each person must enter the following information for each flight or lesson logged:

#### **§61.53 Prohibition on operations during medical deficiency.**

(a) *Operations that require a medical certificate.* Except as provided for in paragraph (b) of this section, no person who holds a medical certificate issued under part 67 of this chapter may act as pilot in command, or in any other capacity as a required pilot flight crewmember, while that person:

(1) Knows or has reason to know of any medical condition that would make the person unable to meet the requirements for the medical certificate necessary for the pilot operation; or

(2) Is taking medication or receiving other treatment for a medical condition that results in the person being unable to meet the requirements for the medical certificate necessary for the pilot operation.

(b) *Operations that do not require a medical certificate.* For operations provided for in §61.23(b) of this part, a person shall not act as pilot in command, or in any other capacity as a required pilot flight crewmember, while that person knows or has reason to know of any medical condition that would make the person unable to operate the aircraft in a safe manner.

#### **§61.56 Flight review.**

(a) Except as provided in paragraphs (b) and (f) of this section, a flight review consists of a minimum of 1 hour of flight training and 1 hour of ground training. The review must include:

(1) A review of the current general operating and flight rules of part 91 of this chapter; and

(2) A review of those maneuvers and procedures that, at the discretion of the person giving the review, are necessary for the pilot to demonstrate the safe exercise of the privileges of the pilot certificate.

(c) Except as provided in paragraphs (d), (e), and (g) of this section, no person may act as pilot in command of an aircraft unless, since the beginning of the 24th calendar month before the month in which that pilot acts as pilot in command, that person has:

(1) Accomplished a flight review given in an aircraft for which that pilot is rated by an authorized instructor and

(2) A logbook endorsed from an authorized instructor who gave the review certifying that the person

**has satisfactorily completed the review.**

(d) A person who has, within the period specified in paragraph (c) of this section, passed any of the following **need not accomplish the flight review** required by this section:

(1) A **pilot proficiency check or practical test** conducted by an examiner, an approved pilot check airman, or a U.S. Armed Force, for a pilot certificate, rating, or operating privilege.

(2) A **practical test** conducted by an examiner for the issuance of a flight instructor certificate, an additional rating on a flight instructor certificate, renewal of a flight instructor certificate, or reinstatement of a flight instructor certificate.

**§61.57 Recent flight experience: Pilot in command.**

(a) *General experience.*

(1) Except as provided in paragraph (e) of this section, no person may act as a pilot in command of an aircraft carrying passengers or of an aircraft certificated for more than one pilot flight crewmember unless that person has made **at least three takeoffs and three landings within the preceding 90 days, and—**

(i) **The person acted as the sole manipulator of the flight controls; and**

(ii) **The required takeoffs and landings were performed in an aircraft of the same category, class, and type (if a type rating is required), and, if the aircraft to be flown is an airplane with a tailwheel, the takeoffs and landings must have been made to a full stop in an airplane with a tailwheel.**

(2) For the purpose of meeting the requirements of paragraph (a)(1) of this section, **a person may act as a pilot in command of an aircraft under day VFR or day IFR, provided no persons or property are carried on board the aircraft, other than those necessary for the conduct of the flight.**

(b) **Night takeoff and landing experience.** (1) Except as provided in paragraph (e) of this section, **no person may act as pilot in command of an aircraft carrying passengers during the period beginning 1 hour after sunset and ending 1 hour before sunrise, unless within the preceding 90 days that person has made at least three takeoffs and three landings to a full stop during the period beginning 1 hour after sunset and ending 1 hour before sunrise, and—**

(i) **That person acted as sole manipulator of the flight controls; and**

(ii) **The required takeoffs and landings were performed in an aircraft of the same category, class, and type (if a type rating is required).**

**§61.59 Falsification, reproduction, or alteration of applications, certificates, logbooks, reports, or records.**

(a) **No person may make or cause to be made:**

(1) **Any fraudulent or intentionally false statement on any application for a certificate, rating, authorization, or duplicate thereof, issued under this part;**

(2) **Any fraudulent or intentionally false entry in any logbook, record, or report that is required to be kept, made, or used to show compliance with any requirement for the issuance or exercise of the privileges of any certificate, rating, or authorization under this part;**

(3) Any reproduction for fraudulent purpose of any certificate, rating, or authorization, under this part; or

(4) Any alteration of any certificate, rating, or authorization under this part.

(b) The commission of an act prohibited under paragraph (a) of this section is a basis for suspending or revoking any airman certificate, rating, or authorization held by that person.

#### **§61.60 Change of address.**

The holder of a pilot, flight instructor, or ground instructor certificate who has made a change in permanent mailing address may not, after 30 days from that date, exercise the privileges of the certificate unless the holder has notified in writing the FAA, Airman Certification Branch, P.O. Box 25082, Oklahoma City, OK 73125, of the new permanent mailing address, or if the permanent mailing address includes a post office box number, then the holder's current residential address.

## **Subpart B—Aircraft Ratings and Pilot Authorizations**

#### **§61.61 Applicability.**

This subpart prescribes the requirements for the issuance of additional aircraft ratings after a pilot certificate is issued, issuance of a type rating concurrently with a pilot certificate, and the requirements for and limitations of pilot authorizations issued by the Administrator.

(g) Single engine airplane with a single-pilot station. An applicant for a type rating, at other than the ATP certification level, in a single engine airplane with a single-pilot station must perform the practical test in the multi-seat version of that single engine airplane, or the practical test may be performed in the single-seat version of that airplane if the Examiner is in a position to observe the applicant during the practical test and there is no multi-seat version of that single engine airplane.

## **Subpart C—Student Pilot**

#### **§61.83 Eligibility requirements for student pilots.**

To be **eligible for a student pilot certificate**, an applicant must:

(a) Be at least 16 years of age for other than the operation of a glider or balloon.

(b) Be at least 14 years of age for the operation of a glider or balloon.

(c) Be able to **read, speak, write, and understand the English language**. If the applicant is unable to meet one of these requirements due to medical reasons, then the Administrator may place such operating limitations on that applicant's pilot certificate as are necessary for the safe operation of the aircraft.

#### **§61.85 Application.**

An applicant for a student pilot certificate:

(a) **Must make that application in a form acceptable to the Administrator; and**

(b) Must submit the application to a Flight Standards District Office, a designated pilot examiner, an airman certification representative associated with a pilot school, a flight instructor, or other person authorized by the Administrator..

**§61.89 General limitations.**

**(a) A student pilot may *NOT* act as pilot in command of an aircraft:**

**(1) That is carrying a passenger;**

**(2) That is carrying property for compensation or hire;**

**(3) For compensation or hire;**

**(4) In furtherance of a business;**

**(5) On an international flight, except that a student pilot may make solo training flights from Haines, Gustavus, or Juneau, Alaska, to White Horse, Yukon, Canada, and return over the province of British Columbia;**

**(6) With a flight or surface visibility of less than 3 statute miles during daylight hours or 5 statute miles at night;**

**(7) When the flight cannot be made with visual reference to the surface; or**

**(8) In a manner contrary to any limitations placed in the pilot's logbook by an authorized instructor.**

(c) A ***student pilot seeking a sport pilot certificate*** must comply with the provisions of paragraphs (a) and (b) of this section and may not act as pilot in command—

(1) Of an aircraft other than a light-sport aircraft;

(2) At night;

(3) At an altitude of more than 10,000 feet MSL or 2,000 feet AGL, whichever is higher;

(4) In Class B, C, and D airspace, at an airport located in Class B, C, or D airspace, and to, from, through, or on an airport having an operational control tower without having received the ground and flight training specified in §61.94 and an endorsement from an authorized instructor;

(5) Of a light-sport aircraft without having received the applicable ground training, flight training, and instructor endorsements specified in §61.327 (a) and (b).

**§61.95 Operations in Class B airspace and at airports located within Class B airspace.**

**(a) A student pilot may not operate an aircraft on a solo flight in Class B airspace unless:**

(1) The student pilot has received both ground and flight training from an authorized instructor on that

Class B airspace area, and the flight training was received in the specific Class B airspace area for which solo flight is authorized;

(2) The logbook of that student pilot has been endorsed by the authorized instructor who gave the student pilot flight training, and the endorsement is dated within the 90-day period preceding the date of the flight in that Class B airspace area; and

(3) The logbook endorsement specifies that the student pilot has received the required ground and flight training, and has been found proficient to conduct solo flight in that specific Class B airspace area.

(b) A student pilot may not operate an aircraft on a solo flight to, from, or at an airport located within Class B airspace pursuant to §91.131(b) of this chapter unless:

(1) The student pilot has received both ground and flight training from an instructor authorized to provide training to operate at that airport, and the flight and ground training has been received at the specific airport for which the solo flight is authorized;

(2) The logbook of that student pilot has been endorsed by an authorized instructor who gave the student pilot flight training, and the endorsement is dated within the 90-day period preceding the date of the flight at that airport; and

(3) The logbook endorsement specifies that the student pilot has received the required ground and flight training, and has been found proficient to conduct solo flight operations at that specific airport.

(c) This section does not apply to a student pilot seeking a sport pilot certificate or a recreational pilot certificate.

## Subpart E—Private Pilots

### §61.103 Eligibility requirements: General.

To be eligible for a private pilot certificate, a person must:

(a) Be at least **17 years of age for a rating in other than a glider or balloon.**

(b) Be at least **16 years of age for a rating in a glider or balloon.**

(c) Be able to **read, speak, write, and understand the English language.** If the applicant is unable to meet one of these requirements due to medical reasons, then the Administrator may place such operating limitations on that applicant's pilot certificate as are necessary for the safe operation of the aircraft.

(g) **Meet the aeronautical experience requirements** of this part that apply to the aircraft rating sought before applying for the practical test.

(h) **Pass a practical test on the areas of** operation listed in §61.107(b) of this part that apply to the aircraft rating sought.

- (i) **Comply** with the appropriate sections of this part that apply to the aircraft category and class rating sought.
- (j) **Hold a U.S. student pilot certificate, sport pilot certificate, or recreational pilot certificate.**

### **§61.105 Aeronautical knowledge.**

(a) *General.* **A person who is applying for a private pilot certificate must receive and log ground training from an authorized instructor or complete a home-study course on the aeronautical knowledge areas of paragraph (b) of this section that apply to the aircraft category and class rating sought.**

(b) *Aeronautical knowledge areas.* (1) Applicable Federal Aviation Regulations of this chapter that relate to private pilot privileges, limitations, and flight operations;

(2) Accident reporting requirements of the National Transportation Safety Board;

(3) Use of the applicable portions of the “Aeronautical Information Manual” and FAA advisory circulars;

(4) Use of aeronautical charts for VFR navigation using pilotage, dead reckoning, and navigation systems;

(5) Radio communication procedures;

(6) Recognition of critical weather situations from the ground and in flight, windshear avoidance, and the procurement and use of aeronautical weather reports and forecasts;

(7) Safe and efficient operation of aircraft, including collision avoidance, and recognition and avoidance of wake turbulence;

(8) Effects of density altitude on takeoff and climb performance;

(9) Weight and balance computations;

(10) Principles of aerodynamics, powerplants, and aircraft systems;

(11) Stall awareness, spin entry, spins, and spin recovery techniques for the airplane and glider category ratings;

(12) Aeronautical decision making and judgment; and

(13) Preflight action that includes—

(i) How to obtain information on runway lengths at airports of intended use, data on takeoff and landing distances, weather reports and forecasts, and fuel requirements; and

(ii) How to plan for alternatives if the planned flight cannot be completed or delays are encountered.

### **§61.113 Private pilot privileges and limitations: Pilot in command.**

[Link to an amendment published at 82 FR 3165, Jan. 11, 2017.](#)

(a) Except as provided in paragraphs (b) through (h) of this section, no person who holds a private pilot certificate may act as pilot in command of an aircraft that is carrying passengers or property for compensation or hire; nor may that person, for compensation or hire, act as pilot in command of an aircraft.

(b) A private pilot may, for compensation or hire, act as pilot in command of an aircraft in connection with any business or employment if:

- (1) The flight is only incidental to that business or employment; and
- (2) The aircraft does not carry passengers or property for compensation or hire.

(c) **A private pilot may not pay less than the pro rata share of the operating expenses of a flight with passengers, provided the expenses involve only fuel, oil, airport expenditures, or rental fees.**

(d) A private pilot may act as pilot in command of a charitable, nonprofit, or community event flight described in §91.146, if the sponsor and pilot comply with the requirements of §91.146.

(e) A private pilot may be reimbursed for aircraft operating expenses that are directly related to search and location operations, provided the expenses involve only fuel, oil, airport expenditures, or rental fees, and the operation is sanctioned and under the direction and control of:

- (1) A local, State, or Federal agency; or
- (2) An organization that conducts search and location operations.

(f) A private pilot who is an aircraft salesman and who has at least 200 hours of logged flight time may demonstrate an aircraft in flight to a prospective buyer.

(i) **A private pilot may act as pilot in command of an aircraft without holding a medical certificate issued under part 67 of this chapter provided the pilot holds a valid U.S. driver's license, meets the requirements of §61.23(c)(3), and complies with this section and all of the following conditions and limitations:**

(1) The aircraft is authorized **to carry not more than 6 occupants**, has a maximum takeoff weight of not more than 6,000 pounds, and is operated with no more than five passengers on board; and

(2) The flight, including each portion of the flight, **is not carried out—**

(i) **At an altitude that is more than 18,000 feet above mean sea level;**

(ii) **Outside the United States unless authorized by the country in which the flight is conducted; or**

(iii) **At an indicated airspeed exceeding 250 knots; and**

(3) **The pilot has available in his or her logbook—**

(i) **The completed medical examination checklist required under §68.7 of this chapter; and**

(ii) **The certificate of course completion required under §61.23(c)(3).**

## Subpart J—Sport Pilots

### §61.303 If I want to operate a light-sport aircraft, what operating limits and endorsement requirements in this subpart must I comply with?

(a) Use the following table to determine what operating limits and endorsement requirements in this subpart, if any, apply to you when you operate a light-sport aircraft. The medical certificate specified in this table must be in compliance with §61.2 in regards to currency and validity. If you hold a recreational pilot certificate, but not a medical certificate, you must comply with cross country requirements in §61.101 (c), even if your flight does not exceed 50 nautical miles from your departure airport. You must also comply with requirements in other subparts of this part that apply to your certificate and the operation you conduct.

| If you hold                      | And you hold   | Then you may operate   | And  |
|----------------------------------|--|--|--|
| (1) A medical certificate        | (i) A sport pilot certificate,   | (A) Any light-sport aircraft for which you hold the endorsements required for its category and class             | (1) You must hold any other endorsements required by this subpart, and comply with the limitations in §61.315.                           |
|                                  | (ii) At least a recreational pilot certificate with a category and class rating,   | (A) Any light-sport aircraft in that category and class,   | (1) You do not have to hold any of the endorsements required by this subpart, nor do you have to comply with the limitations in §61.315. |
|                                  | (iii) At least a recreational pilot certificate but not a rating for the category and class of light sport aircraft you operate, | (A) That light-sport aircraft, only if you hold the endorsements required in §61.321 for its category and class, | (1) You must comply with the limitations in §61.315, except §61.315(c)(14) and, if a private pilot or higher, §61.315(c)(7).             |
| (2) Only a U.S. driver's license | (i) A sport pilot certificate,   | (A) Any light-sport aircraft for which you hold the endorsements required for its category and class.            | (1) You must hold any other endorsements required by this subpart, and comply with the limitations in §61.315.                           |
|                                  | (ii) At least a recreational pilot certificate with a category and class rating,   | (A) Any light-sport aircraft in that category and class,   | (1) You do not have to hold any of the endorsements required by this subpart, but you must comply with the limitations in §61.315.       |

|   |  |   |  |
|---|--|---|--|
|   | (iii) At least a recreational pilot certificate but not a rating for the category and class of light-sport aircraft you operate, | (A) That light-sport aircraft, only if you hold the endorsements required in §61.321 for its category and class,        | (1) You must comply with the limitations in §61.315, except §61.315(c)(14) and, if a private pilot or higher, §61.315(c)(7).             |
| (3) Neither a medical certificate nor a U.S. driver's license | (i) A sport pilot certificate,   | (A) Any light-sport glider or balloon for which you hold the endorsements required for its category and class           | (1) You must hold any other endorsements required by this subpart, and comply with the limitations in §61.315.                           |
|   | (ii) At least a private pilot certificate with a category and class rating for glider or balloon,                                | (A) Any light-sport glider or balloon in that category and class  | (1) You do not have to hold any of the endorsements required by this subpart, nor do you have to comply with the limitations in §61.315. |
|   | (iii) At least a private pilot certificate but not a rating for glider or balloon,   | (A) Any light-sport glider or balloon, only if you hold the endorsements required in §61.321 for its category and class | (1) You must comply with the limitations in §61.315, except §61.315(c)(14) and, if a private pilot or higher, §61.315(c)(7).             |

(b) A person using a U.S. driver's license to meet the requirements of this paragraph must—

(1) Comply with each restriction and limitation imposed by that person's U.S. driver's license and any judicial or administrative order applying to the operation of a motor vehicle;

(2) Have been found eligible for the issuance of at least a third-class airman medical certificate at the time of his or her most recent application (if the person has applied for a medical certificate);

(3) Not have had his or her most recently issued medical certificate (if the person has held a medical certificate) suspended or revoked or most recent Authorization for a Special Issuance of a Medical Certificate withdrawn; and

(4) Not know or have reason to know of any medical condition that would make that person unable to operate a light-sport aircraft in a safe manner.

### §61.305 What are the age and language requirements for a sport pilot certificate?

(a) To be eligible for a sport pilot certificate you must:

(1) Be at least 17 years old (or 16 years old if you are applying to operate a glider or balloon).

(2) Be able to read, speak, write, and understand English. If you cannot read, speak, write, and understand English because of medical reasons, the FAA may place limits on your certificate as are necessary for the safe operation of light-sport aircraft.

### **§61.307 What tests do I have to take to obtain a sport pilot certificate?**

To obtain a sport pilot certificate, you must pass the following tests:

(a) *Knowledge test.* You must pass a knowledge test on the applicable aeronautical knowledge areas listed in §61.309. Before you may take the knowledge test for a sport pilot certificate, you must receive a logbook endorsement from the authorized instructor who trained you or reviewed and evaluated your home-study course on the aeronautical knowledge areas listed in §61.309 certifying you are prepared for the test.

(b) *Practical test.* You must pass a practical test on the applicable areas of operation listed in §§61.309 and 61.311. Before you may take the practical test for a sport pilot certificate, you must receive a logbook endorsement from the authorized instructor who provided you with flight training on the areas of operation specified in §§61.309 and 61.311 in preparation for the practical test. This endorsement certifies that you meet the applicable aeronautical knowledge and experience requirements and are prepared for the practical test.

### **§61.309 What aeronautical knowledge must I have to apply for a sport pilot certificate?**

To apply for a sport pilot certificate you must receive and log ground training from an authorized instructor or complete a home-study course on the following aeronautical knowledge areas:

(a) Applicable regulations of this chapter that relate to sport pilot privileges, limits, and flight operations.

(b) Accident reporting requirements of the National Transportation Safety Board.

(c) Use of the applicable portions of the aeronautical information manual and FAA advisory circulars.

(d) Use of aeronautical charts for VFR navigation using pilotage, dead reckoning, and navigation systems, as appropriate.

(e) Recognition of critical weather situations from the ground and in flight, windshear avoidance, and the procurement and use of aeronautical weather reports and forecasts.

(f) Safe and efficient operation of aircraft, including collision avoidance, and recognition and avoidance of wake turbulence.

(g) Effects of density altitude on takeoff and climb performance.

(h) Weight and balance computations.

(i) Principles of aerodynamics, powerplants, and aircraft systems.

(j) Stall awareness, spin entry, spins, and spin recovery techniques, as applicable.

(k) Aeronautical decision making and risk management.

(l) Preflight actions that include—

(1) How to get information on runway lengths at airports of intended use, data on takeoff and landing distances, weather reports and forecasts, and fuel requirements; and

(2) How to plan for alternatives if the planned flight cannot be completed or if you encounter delays.

### **§61.315 What are the privileges and limits of my sport pilot certificate?**

(a) If you **hold a sport pilot certificate** you may act as pilot in command of a light-sport aircraft, except as specified in paragraph (c) of this section.

(b) You may share the operating expenses of a flight with a passenger, provided the expenses involve only fuel, oil, airport expenses, or aircraft rental fees. You must pay at least half the operating expenses of the flight.

(c) You may not act as pilot in command of a light-sport aircraft:

(1) That is carrying a passenger or property for compensation or hire.

(2) For compensation or hire.

(3) In furtherance of a business.

(4) While carrying more than one passenger.

(5) At night.

(6) In Class A airspace.

(7) In Class B, C, and D airspace, at an airport located in Class B, C, or D airspace, and to, from, through, or at an airport having an operational control tower unless you have met the requirements specified in §61.325.

(8) Outside the United States, unless you have prior authorization from the country in which you seek to operate. Your sport pilot certificate carries the limit “Holder does not meet ICAO requirements.”

(9) To demonstrate the aircraft in flight to a prospective buyer if you are an aircraft salesperson.

(10) In a passenger-carrying airlift sponsored by a charitable organization.

(11) At an altitude of more than 10,000 feet MSL or 2,000 feet AGL, whichever is higher.

(12) When the flight or surface visibility is less than 3 statute miles.

(13) Without visual reference to the surface.

(14) If the aircraft:

(i) Has a  $V_H$  greater than 87 knots CAS, unless you have met the requirements of §61.327(b).

(ii) Has a  $V_H$  less than or equal to 87 knots CAS, unless you have met the requirements of §61.327(a) or have logged flight time as pilot in command of an airplane with a  $V_H$  less than or equal to 87 knots CAS before April 2, 2010.

(15) Contrary to any operating limitation placed on the airworthiness certificate of the aircraft being flown.

(16) Contrary to any limit on your pilot certificate or airman medical certificate, or any other limit or endorsement from an authorized instructor.

(17) Contrary to any restriction or limitation on your U.S. driver's license or any restriction or limitation imposed by judicial or administrative order when using your driver's license to satisfy a requirement of this part.

(18) While towing any object.

(19) As a pilot flight crewmember on any aircraft for which more than one pilot is required by the type certificate of the aircraft or the regulations under which the flight is conducted.

### **§61.317 Is my sport pilot certificate issued with aircraft category and class ratings?**

Your sport pilot certificate does not list aircraft category and class ratings. When you successfully pass the practical test for a sport pilot certificate, regardless of the light-sport aircraft privileges you seek, the FAA will issue you a sport pilot certificate without any category and class ratings. The FAA will provide you with a logbook endorsement for the category and class of aircraft in which you are authorized to act as pilot in command..

## **FAR Part 91 General Operating and Flight Rules**

### **Subpart B—Flight Rules**

#### **GENERAL**

#### **§91.103 Preflight action.**

Each pilot in command shall, before beginning a flight, become familiar with all available information concerning that flight. This information must include—

(a) For a flight under IFR or a flight not in the vicinity of an airport, weather reports and forecasts, fuel requirements, alternatives available if the planned flight cannot be completed, and any known traffic delays of which the pilot in command has been advised by ATC;

(b) For any flight, runway lengths at airports of intended use, and the following takeoff and landing distance information:

#### **§91.107 Use of safety belts, shoulder harnesses, and child restraint systems.**

(a) Unless otherwise authorized by the Administrator—

(1) No pilot may take off a U.S.-registered civil aircraft (except a free balloon that incorporates a basket or gondola, or an airship type certificated before November 2, 1987) unless the pilot in command of that aircraft ensures that each person on board is briefed on how to fasten and unfasten that person's safety belt and, if installed, shoulder harness.

(2) No pilot may cause to be moved on the surface, take off, or land a U.S.-registered civil aircraft (except a free balloon that incorporates a basket or gondola, or an airship type certificated before November 2, 1987) unless the pilot in command of that aircraft ensures that each person on board has been notified to fasten his or her safety belt and, if installed, his or her shoulder harness.

(3) Except as provided in this paragraph, each person on board a U.S.-registered civil aircraft (except a free balloon that incorporates a basket or gondola or an airship type certificated before November 2, 1987) must occupy an approved seat or berth with a safety belt and, if installed, shoulder harness, properly secured about him or her during movement on the surface, takeoff, and landing. For seaplane and float equipped rotorcraft operations during movement on the surface, the person pushing off the seaplane or rotorcraft from the dock and the person mooring the seaplane or rotorcraft at the dock are excepted from the preceding seating and safety belt requirements. Notwithstanding the preceding requirements of this paragraph, a person may:

(i) Be held by an adult who is occupying an approved seat or berth, provided that the person being held has not reached his or her second birthday and does not occupy or use any restraining device;

(ii) Use the floor of the aircraft as a seat, provided that the person is on board for the purpose of engaging in sport parachuting; or

(iii) Notwithstanding any other requirement of this chapter, occupy an approved child restraint system furnished by the operator or one of the persons described in paragraph (a)(3)(iii)(A) of this section provided that:

(A) *The child is accompanied by a parent, guardian, or attendant designated by the child's parent or guardian to attend to the safety of the child during the flight;*

(B) Except as provided in paragraph (a)(3)(iii)(B)(4) of this action, the approved child restraint system bears one or more labels as follows:

(1) Seats manufactured to U.S. standards between January 1, 1981, and February 25, 1985, must bear the label: "This child restraint system conforms to all applicable Federal motor vehicle safety standards";

(2) Seats manufactured to U.S. standards on or after February 26, 1985, must bear two labels:

(i) "This child restraint system conforms to all applicable Federal motor vehicle safety standards";  
and

### **§91.111 Operating near other aircraft.**

(a) No person may operate an aircraft so close to another aircraft as to create a collision hazard.

(b) No person may operate an aircraft in formation flight except by arrangement with the pilot in command of each aircraft in the formation.

(c) No person may operate an aircraft, carrying passengers for hire, in formation flight.

### **§91.113 Right-of-way rules: Except water operations.**

(a) *Inapplicability.* **This section does not apply to the operation of an aircraft on water.**

(b) *General.* When weather conditions permit, regardless of whether an operation is conducted under instrument flight rules or visual flight rules, vigilance shall be maintained by each person operating an aircraft so as to see and

avoid other aircraft. When a rule of this section gives another aircraft the right-of-way, the pilot shall give way to that aircraft and may not pass over, under, or ahead of it unless well clear.

(c) *In distress.* An aircraft in distress has the right-of-way over all other air traffic.

(d) *Converging.* When aircraft of the same category are converging at approximately the same altitude (except head-on, or nearly so), the aircraft to the other's right has the right-of-way. If the aircraft are of different categories—

(1) A balloon has the right-of-way over any other category of aircraft;

(2) A glider has the right-of-way over an airship, powered parachute, weight-shift-control aircraft, airplane, or rotorcraft.

(3) An airship has the right-of-way over a powered parachute, weight-shift-control aircraft, airplane, or rotorcraft.

However, an aircraft towing or refueling other aircraft has the right-of-way over all other engine-driven aircraft.

(e) *Approaching head-on.* When aircraft are approaching each other head-on, or nearly so, each pilot of each aircraft shall alter course to the right.

(f) *Overtaking.* Each aircraft that is being overtaken has the right-of-way and each pilot of an overtaking aircraft shall alter course to the right to pass well clear.

(g) **Landing Aircraft**, while on final approach to land or while landing, have the right-of-way over other aircraft in flight or operating on the surface, except that they shall not take advantage of this rule to force an aircraft off the runway surface which has already landed and is attempting to make way for an aircraft on final approach. When two or more aircraft are approaching an airport for the purpose of landing, the aircraft at the lower altitude has the right-of-way, but it shall not take advantage of this rule to cut in front of another which is on final approach to land or to overtake that aircraft.

#### **§91.115 Right-of-way rules: Water operations.**

(a) *General.* Each person operating an aircraft on the water shall, insofar as possible, keep clear of all vessels and avoid impeding their navigation, and shall give way to any vessel or other aircraft that is given the right-of-way by any rule of this section.

(b) **Crossing.** When aircraft, or an aircraft and a vessel, are on crossing courses, the **aircraft or vessel to the other's right has the right-of-way.**

(c) *Approaching head-on.* When aircraft, or an aircraft and a vessel, are approaching head-on, or nearly so, each shall alter its course **to the right** to keep well clear.

(d) **Overtaking.** Each aircraft or vessel that is being overtaken has the right-of-way, and the one overtaking shall alter course to keep well clear.

(e) **Special circumstances.** When aircraft, or an aircraft and a vessel, approach so as to involve risk of collision, each aircraft or vessel shall proceed with careful regard to existing circumstances, including the limitations of the respective craft.

#### **§91.117 Aircraft speed.**

(a) Unless otherwise authorized by the Administrator, no person may operate an aircraft below 10,000 feet MSL at an indicated airspeed of more than 250 knots (288 m.p.h.).

(b) Unless otherwise authorized or required by ATC, no person may operate an aircraft at or below 2,500 feet above the surface within 4 nautical miles of the primary airport of a Class C or Class D airspace area at an indicated airspeed of more than 200 knots (230 mph.). This paragraph (b) does not apply to any operations within a Class B airspace area. Such operations shall comply with paragraph (a) of this section.

(c) No person may operate an aircraft in the airspace underlying a Class B airspace area designated for an airport or in a VFR corridor designated through such a Class B airspace area, at an indicated airspeed of more than 200 knots (230 mph).

(d) If the minimum safe airspeed for any particular operation is greater than the maximum speed prescribed in this section, the aircraft may be operated at that minimum speed.

#### **§91.119 Minimum safe altitudes: General.**

Except when necessary for takeoff or landing, no person may operate an aircraft below the following altitudes:

(a) *Anywhere.* An altitude allowing, if a power unit fails, an emergency landing without undue hazard to persons or property on the surface.

(b) *Over congested areas.* Over any congested area of a city, town, or settlement, or over any open air assembly of persons, an altitude of 1,000 feet above the highest obstacle within a horizontal radius of 2,000 feet of the aircraft.

(c) *Over other than congested areas.* An altitude of 500 feet above the surface, except over open water or sparsely populated areas. In those cases, the aircraft may not be operated closer than 500 feet to any person, vessel, vehicle, or structure.

(d) *Helicopters, powered parachutes, and weight-shift-control aircraft.* If the operation is conducted without hazard to persons or property on the surface—

(1) A helicopter may be operated at less than the minimums prescribed in paragraph (b) or (c) of this section, provided each person operating the helicopter complies with any routes or altitudes specifically prescribed for helicopters by the FAA; and

(2) A powered parachute or weight-shift-control aircraft may be operated at less than the minimums prescribed in paragraph (c) of this section.

#### **§91.121 Altimeter settings.**

(a) Each person operating an aircraft shall maintain the cruising altitude or flight level of that aircraft, as the case may be, by reference to an altimeter that is set, when operating—

(1) Below 18,000 feet MSL, to—

(i) The current reported altimeter setting of a station along the route and within 100 nautical miles of the aircraft;

(ii) If there is no station within the area prescribed in paragraph (a)(1)(i) of this section, the current reported altimeter setting of an appropriate available station; or

(iii) In the case of an aircraft not equipped with a radio, the elevation of the departure airport or an appropriate altimeter setting available before departure; or

**§91.123 Compliance with ATC clearances and instructions.**

(a) When an ATC clearance has been obtained, no pilot in command may deviate from that clearance unless an amended clearance is obtained, an emergency exists, or the deviation is in response to a traffic alert and collision avoidance system resolution advisory. However, except in Class A airspace, a pilot may cancel an IFR flight plan if the operation is being conducted in VFR weather conditions. When a pilot is uncertain of an ATC clearance, that pilot shall immediately request clarification from ATC.

(b) Except in an emergency, no person may operate an aircraft contrary to an ATC instruction in an area in which air traffic control is exercised.

(c) Each pilot in command who, in an emergency, or in response to a traffic alert and collision avoidance system resolution advisory, deviates from an ATC clearance or instruction shall notify ATC of that deviation as soon as possible.

(d) Each pilot in command who (though not deviating from a rule of this subpart) is given priority by ATC in an emergency, shall submit a detailed report of that emergency within 48 hours to the manager of that ATC facility, if requested by ATC.

(e) Unless otherwise authorized by ATC, no person operating an aircraft may operate that aircraft according to any clearance or instruction that has been issued to the pilot of another aircraft for radar air traffic control purposes.

**§91.125 ATC light signals.**

ATC light signals have the meaning shown in the following table:

| Color and type of signal  | Meaning with respect to aircraft on the surface | Meaning with respect to aircraft in flight                          |
|---------------------------|---|---|
| Steady green              | Cleared for takeoff                             | Cleared to land.  |
| Flashing green            | Cleared to taxi                                 | Return for landing (to be followed by steady green at proper time). |
| Steady red                | Stop  | Give way to other aircraft and continue circling.                   |
| Flashing red              | Taxi clear of runway in use                     | Airport unsafe—do not land.   |
| Flashing white            | Return to starting point on airport             | Not applicable.   |
| Alternating red and green | Exercise extreme caution                        | Exercise extreme caution.   |

### **§91.126 Operating on or in the vicinity of an airport in Class G airspace.**

(a) *General.* Unless otherwise authorized or required, each person operating an aircraft on or in the vicinity of an airport in a Class G airspace area must comply with the requirements of this section.

(b) *Direction of turns.* When approaching to land at an airport without an operating control tower in Class G airspace—

(1) Each pilot of an airplane must make all turns of that airplane **to the left unless the airport displays approved light signals or visual markings indicating that turns should be made to the right**, in which case the pilot must make all turns to the right; and

(2) Each pilot of a helicopter or a powered parachute must avoid the flow of fixed-wing aircraft.

(d) *Communications with control towers.* Unless otherwise authorized or required by ATC, **no person may operate an aircraft to, from, through, or on an airport having an operational control tower unless two-way radio communications are maintained between that aircraft and the control tower. Communications must be established prior to 4 nautical miles from the airport, up to and including 2,500 feet AGL. However, if the aircraft radio fails in flight, the pilot in command may operate that aircraft and land if weather conditions are at or above basic VFR weather minimums, visual contact with the tower is maintained, and a clearance to land is received.** If the aircraft radio fails while in flight under IFR, the pilot must comply with §91.185.

### **§91.127 Operating on or in the vicinity of an airport in Class E airspace.**

(a) Unless otherwise required by part 93 of this chapter or unless otherwise authorized or required by the ATC facility having jurisdiction over the Class E airspace area, each person operating an aircraft on or in the vicinity of an airport in a Class E airspace area must comply with the requirements of §91.126.

(b) *Departures.* Each pilot of an aircraft must **comply with any traffic patterns established for that airport** in part 93 of this chapter.

(c) *Communications with control towers.* Unless otherwise authorized or required by ATC, **no person may operate an aircraft to, from, though, or on an airport having an operational control tower unless two-way radio communications are maintained between that aircraft and the control tower. Communications must be established prior to 4 nautical miles from the airport, up to and including 2,500 feet AGL. However, if the aircraft radio fails in flight, the pilot in command may operate that aircraft and land if weather conditions are at or above basic VFR weather minimums, visual contact with the tower is maintained, and a clearance to land is received.** If the aircraft radio fails while in flight under IFR, the pilot must comply with §91.185.

### **§91.129 Operations in Class D airspace.**

(a) *General.* Unless otherwise authorized or required by the ATC facility having jurisdiction over the Class D airspace area, each person operating an aircraft in Class D airspace must comply with the applicable provisions of this section. In addition, each person must comply with §§91.126 and 91.127. For the purpose of this section, the primary airport is the airport for which the Class D airspace area is designated. A satellite airport is any other airport within the Class D airspace area.

(b) *Deviations.* An operator may deviate from any provision of this section under the provisions of an ATC authorization **issued by the ATC facility having jurisdiction over the airspace concerned. ATC may authorize a deviation on a continuing basis or for an individual flight**, as appropriate.

(c) **Communications.** Each person operating an aircraft in Class D airspace must meet the following two-way radio communications requirements:

(1) **Arrival or through flight.** Each person must **establish two-way radio communications with the ATC facility (including foreign ATC** in the case of foreign airspace designated in the United States) providing air traffic services prior to entering that airspace and thereafter maintain those communications while within that airspace.

(2) **Departing flight.** Each person—

(i) From the **primary airport or satellite airport with an operating control tower must establish and maintain two-way radio communications with the control tower, and thereafter as instructed by ATC while operating in the Class D airspace area; or**

(ii) From a satellite airport without an operating control tower, **must establish and maintain two-way radio communications with the ATC facility having jurisdiction over the Class D airspace area as soon as practicable after departing.**

(d) **Communications failure.** Each person who operates an aircraft in a Class D airspace area must maintain two-way radio communications with the ATC facility having jurisdiction over that area.

(1) If the aircraft radio fails in flight under IFR, the pilot must comply with §91.185 of the part.

(2) **If the aircraft radio fails in flight under VFR, the pilot in command may operate that aircraft and land if—**

(i) **Weather conditions are at or above basic VFR weather minimums;**

(ii) **Visual contact with the tower is maintained; and**

(iii) **A clearance to land is received.**

(e) **Minimum altitudes when operating to an airport in Class D airspace.** (1) Unless required by the applicable distance-from-cloud criteria, **each pilot operating a large or turbine-powered airplane must enter the traffic pattern at an altitude of at least 1,500 feet above the elevation of the airport and maintain at least 1,500 feet until further descent is required for a safe landing.**

(g) **Departures.** No person may operate an aircraft departing from an airport except in compliance with the following:

(1) Each pilot must **comply with any departure procedures established for that airport by the FAA.**

(2) **Unless otherwise required by the prescribed departure procedure for that airport or the applicable distance from clouds criteria, each pilot of a turbine-powered airplane and each pilot of a large airplane must climb to an altitude of 1,500 feet above the surface as rapidly as practicable.**

(h) **Noise abatement.** Where a formal runway use program has been established by the FAA, each pilot of a large or turbine-powered airplane assigned a noise abatement runway by ATC must use that runway. However, consistent with the final authority of the pilot in command concerning the safe operation of the aircraft as prescribed in §91.3(a), ATC may assign a different runway if requested by the pilot in the interest of safety.

(i) **Takeoff, landing, taxi clearance.** No person may, at any airport with an operating control tower, operate an aircraft on a runway or taxiway, or take off or land an aircraft, unless an appropriate clearance is received from ATC.

### **§91.130 Operations in Class C airspace.**

(a) *General.* Unless otherwise authorized by ATC, each aircraft operation in Class C airspace must be conducted in compliance with this section and §91.129. For the purpose of this section, the primary airport is the airport for which the Class C airspace area is designated. A satellite airport is any other airport within the Class C airspace area.

(b) *Traffic patterns.* No person may take off or land an aircraft at a satellite airport within a Class C airspace area except in compliance with FAA arrival and departure traffic patterns.

(c) *Communications.* Each person operating an aircraft in Class C airspace must meet the following two-way radio communications requirements:

(1) *Arrival or through flight.* Each person must establish two-way radio communications with the ATC facility (including foreign ATC in the case of foreign airspace designated in the United States) providing air traffic services prior to entering that airspace and thereafter maintain those communications while within that airspace.

(2) *Departing flight.* Each person—

(i) From the primary airport or satellite airport with an operating control tower must establish and maintain two-way radio communications with the control tower, and thereafter as instructed by ATC while operating in the Class C airspace area; or

(ii) From a satellite airport without an operating control tower, must establish and maintain two-way radio communications with the ATC facility having jurisdiction over the Class C airspace area as soon as practicable after departing.

(d) *Equipment requirements.* Unless otherwise authorized by the ATC having jurisdiction over the Class C airspace area, no person may operate an aircraft within a Class C airspace area designated for an airport unless that aircraft is equipped with the applicable equipment (radio/transponder) specified in §91.215, and after January 1, 2020, §91.225.

(e) *Deviations.* An operator may deviate from any provision of this section under the provisions of an ATC authorization issued by the ATC facility having jurisdiction over the airspace concerned. ATC may authorize a deviation on a continuing basis or for an individual flight, as appropriate.

### **§91.131 Operations in Class B airspace.**

(a) *Operating rules.* No person may operate an aircraft within a Class B airspace area except in compliance with §91.129 and the following rules:

(1) The operator **must receive an ATC clearance from the ATC facility having jurisdiction for that area before operating an aircraft in that area.**

(2) Unless otherwise authorized by ATC, each person operating a large turbine engine-powered airplane to or from a primary airport for which a Class B airspace area is designated must operate at or above the designated floors of the Class B airspace area while within the lateral limits of that area.

(3) Any person conducting pilot training operations at an airport within a Class B airspace area must comply with any procedures established by ATC for such operations in that area.

(b) *Pilot requirements.*

(1) No person may take off or land a civil aircraft at an airport within a Class B airspace area or operate a civil aircraft within a Class B airspace area unless—

(i) The pilot in command holds at least a **private pilot certificate**;

(ii) The pilot in command holds a recreational pilot certificate and has met—

(A) The requirements of §61.101(d) of this chapter; or

(B) The requirements for a student pilot seeking a recreational pilot certificate in §61.94 of this chapter;

(iii) The pilot in command holds a **sport pilot certificate** and has met—

(A) The requirements of §61.325 of this chapter; or

(B) The requirements for a student pilot seeking a recreational pilot certificate in §61.94 of this chapter; or

(iv) The aircraft is operated by a **student pilot who has met the requirements of §61.94 or §61.95 of this chapter, as applicable.**

(2) Notwithstanding the provisions of paragraphs (b)(1)(ii), (b)(1)(iii) and (b)(1)(iv) of this section, no person may take off or land a civil aircraft at those airports listed in section 4 of appendix D to this part unless the pilot in command holds at least a private pilot certificate.

(c) *Communications and navigation equipment requirements.* Unless otherwise authorized by ATC, no person may operate an aircraft within a Class B airspace area unless that aircraft is equipped with—

(1) *For IFR operation.* An operable VOR or TACAN receiver or an operable and suitable RNAV system; and

(2) *For all operations.* An operable two-way radio capable of communications with ATC on appropriate frequencies for that Class B airspace area.

(d) *Other equipment requirements.* No person may operate an aircraft in a Class B airspace area unless the aircraft is equipped with—

(1) The applicable operating transponder and automatic altitude reporting equipment specified in §91.215 (a), except as provided in §91.215 (e), and

(2) After January 1, 2020, the applicable Automatic Dependent Surveillance-Broadcast Out equipment specified in §91.225.

### **§91.133 Restricted and prohibited areas.**

(a) **No person may operate an aircraft within a restricted area (designated in part 73) contrary to the restrictions imposed, or within a prohibited area, unless that person has the permission of the using or controlling agency, as appropriate.**

(b) **Each person conducting, within a restricted area, an aircraft operation (approved by the using agency) that creates the same hazards as the operations for which the restricted area was designated may deviate from the rules of this subpart that are not compatible with the operation of the aircraft.**

### **§91.137 Temporary flight restrictions in the vicinity of disaster/hazard areas.**

(a) The Administrator **will issue a Notice to Airmen (NOTAM)** designating an area within which temporary flight restrictions apply and specifying the hazard or condition requiring their imposition, whenever he determines it is necessary in order to—

- (1) **Protect persons and property on the surface or in the air** from a hazard associated with an incident on the surface;
- (2) Provide a **safe environment** for the operation of disaster relief aircraft; or
- (3) **Prevent an unsafe congestion of sightseeing and other aircraft** above an incident or event which may generate a high degree of public interest.

The Notice to Airmen will specify the hazard or condition that requires the imposition of temporary flight restrictions.

(b) When a NOTAM has been issued under paragraph (a)(1) of this section, no person may operate an aircraft within the designated area unless that aircraft is participating in the hazard relief activities and is being operated under the direction of the official in charge of on scene emergency response activities.

(c) When a NOTAM has been issued under paragraph (a)(2) of this section, **no person may operate an aircraft within the designated area unless at least one of the following conditions are met:**

- (1) The aircraft is participating in hazard relief activities and is being operated under the direction of the official in charge of on scene emergency response activities.
- (2) The aircraft is **carrying law enforcement** officials.
- (3) The aircraft is **operating under the ATC approved IFR flight plan.**
- (4) The operation is **conducted directly to or from an airport within the area**, or is necessitated by the impracticability of VFR flight above or around the area due to weather, or terrain; notification is given to the Flight Service Station (FSS) or ATC facility specified in the NOTAM to receive advisories concerning disaster relief aircraft operations; and the operation does not hamper or endanger relief activities and is not conducted for the purpose of observing the disaster.
- (5) The aircraft is **carrying properly accredited news representatives, and, prior to entering the area, a flight plan is filed with the appropriate FAA or ATC facility** specified in the Notice to Airmen and the operation is conducted above the altitude used by the disaster relief aircraft, **unless otherwise authorized by the official in charge of on scene emergency response activities.**

(d) When a NOTAM has been issued under paragraph (a)(3) of this section, no person may operate an aircraft within the designated area unless at least one of the following conditions is met:

- (1) The operation is conducted directly to or from an airport within the area, or is necessitated by the impracticability of VFR flight above or around the area due to weather or terrain, and the operation is not conducted for the purpose of observing the incident or event.
- (2) The aircraft is operating under an ATC approved IFR flight plan.
- (3) The aircraft is carrying incident or event personnel, or law enforcement officials.
- (4) The aircraft is carrying properly accredited news representatives and, prior to entering that area, a flight plan is filed with the appropriate FSS or ATC facility specified in the NOTAM.

(e) Flight plans filed and notifications made with an FSS or ATC facility under this section shall include the following information:

- (1) Aircraft identification, type and color.
- (2) Radio communications frequencies to be used.
- (3) Proposed times of entry of, and exit from, the designated area.
- (4) Name of news media or organization and purpose of flight.
- (5) Any other information requested by ATC.

**§91.139 Emergency air traffic rules.**

(a) This section prescribes a process for utilizing Notices to Airmen (NOTAMs) to advise of the issuance and operations under emergency air traffic rules and regulations and designates the official who is authorized to issue NOTAMs on behalf of the Administrator in certain matters under this section.

(b) *Whenever the Administrator determines that an emergency condition exists, or will exist, relating to the FAA's ability to operate the air traffic control system and during which normal flight operations under this chapter cannot be conducted consistent with the required levels of safety and efficiency—*

(1) The Administrator issues an immediately effective air traffic rule or regulation in response to that emergency condition; and

(2) The Administrator or the Associate Administrator for Air Traffic may utilize the NOTAM system to provide notification of the issuance of the rule or regulation.

Those NOTAMs communicate information concerning the rules and regulations that govern flight operations, the use of navigation facilities, and designation of that airspace in which the rules and regulations apply.

(c) *When a NOTAM has been issued under this section, no person may operate an aircraft, or other device governed by the regulation concerned, within the designated airspace except in accordance with the authorizations, terms, and conditions prescribed in the regulation covered by the NOTAM.*

**§91.141 Flight restrictions in the proximity of the Presidential and other parties.**

**§91.143 Flight limitation in the proximity of space flight operations.**

**§91.146 Passenger-carrying flights for the benefit of a charitable, nonprofit, or community event.**

(a) *Definitions.* For purposes of this section, the following definitions apply:

**Charitable event** means an event that raises funds for the benefit of a charitable organization recognized by the Department of the Treasury whose donors may deduct contributions under section 170 of the Internal Revenue Code (26 U.S.C. Section 170).

**Community event** means an event that raises funds for the benefit of any local or community cause that is not a charitable event or non-profit event.

**Non-profit event** means an event that raises funds for the benefit of a non-profit organization recognized under State or Federal law, as long as one of the organization's purposes is the promotion of aviation safety.

(b) Passenger carrying flights for the benefit of a charitable, nonprofit, or community event identified in paragraph (c) of this section are not subject to the certification requirements of part 119 or the drug and alcohol testing requirements in part 120 of this chapter, provided the following conditions are satisfied and the limitations in paragraphs (c) and (d) are not exceeded:

(1) The flight is nonstop and begins and ends at the same airport and is conducted within a 25-statute mile radius of that airport;

(2) The flight is conducted from a public airport that is adequate for the airplane or helicopter used, or from another location the FAA approves for the operation;

(3) The airplane or helicopter has a maximum of 30 seats, excluding each crewmember seat, and a maximum payload capacity of 7,500 pounds;

(4) The flight is not an aerobatic or a formation flight;

(5) Each airplane or helicopter holds a standard airworthiness certificate, is airworthy, and is operated in compliance with the applicable requirements of subpart E of this part;

(6) Each flight is made during day VFR conditions;

(7) Reimbursement of the operator of the airplane or helicopter is limited to that portion of the passenger payment for the flight that does not exceed the pro rata cost of owning, operating, and maintaining the aircraft for that flight, which may include fuel, oil, airport expenditures, and rental fees;

(8) The beneficiary of the funds raised is not in the business of transportation by air;

(9) A private pilot acting as pilot in command has at least 500 hours of flight time;

(10) Each flight is conducted in accordance with the safety provisions of part 136, subpart A of this chapter; and

(11) Flights are not conducted over a national park, unit of a national park, or abutting tribal lands, unless the operator has secured a letter of agreement from the FAA, as specified under subpart B of part 136 of this chapter, and is operating in accordance with that agreement during the flights.

(1) Passenger-carrying flights or series of flights are limited to a total of four charitable events or non-profit events per year, with no event lasting more than three consecutive days.

(2) Passenger-carrying flights or series of flights are limited to one community event per year, with no event lasting more than three consecutive days.

(d) Pilots and sponsors of events described in this section are limited to no more than 4 events per calendar year.

(e) At least seven days before the event, each sponsor of an event described in this section must furnish to the FAA Flight Standards District Office with jurisdiction over the geographical area where the event is scheduled:

(1) A signed letter detailing the name of the sponsor, the purpose of the event, the date and time of the event, the location of the event, all prior events under this section participated in by the sponsor in the current calendar year;

(2) A photocopy of each pilot in command's pilot certificate, medical certificate, and logbook entries that show the pilot is current in accordance with §§61.56 and 61.57 of this chapter and that any private pilot has at least 500 hours of flight time; and

(3) A signed statement from each pilot that lists all prior events under this section in which the pilot has participated during the current calendar year.

## **VISUAL FLIGHT RULES**

### **§91.151 Fuel requirements for flight in VFR conditions.**

(a) No person may begin a flight in an airplane under VFR conditions unless (considering wind and forecast weather conditions) there is **enough fuel to fly to the first point of intended landing and, assuming normal cruising speed—**

**(1) During the day, to fly after that for at least 30 minutes; or**

**(2) At night, to fly after that for at least 45 minutes.**

### **§91.155 Basic VFR weather minimums.**

(a) Except as provided in paragraph (b) of this section and §91.157, no person may operate an aircraft under VFR when the flight visibility is less, or at a distance from clouds that is less, than that prescribed for the corresponding altitude and class of airspace in the following table:

| <b>Airspace</b> | <b>Flight visibility</b> | <b>Distance from clouds</b> |
|-----------------|--------------------------|-----------------------------|
| Class A         | Not Applicable           | Not Applicable.             |
| Class B         | 3 statute miles          | Clear of Clouds.            |
| Class C         | 3 statute miles          | 500 feet below.             |
|                 |                          | 1,000 feet above.           |
|                 |                          | 2,000 feet horizontal.      |

|   |                 |                            |
|---|-----------------|----------------------------|
| Class D   | 3 statute miles | 500 feet below.            |
|   |                 | 1,000 feet above.          |
|   |                 | 2,000 feet horizontal.     |
| Class E:  |                 |                            |
| Less than 10,000 feet MSL   | 3 statute miles | 500 feet below.            |
|   |                 | 1,000 feet above.          |
|   |                 | 2,000 feet horizontal.     |
| At or above 10,000 feet MSL                                       | 5 statute miles | 1,000 feet below.          |
|   |                 | 1,000 feet above.          |
|   |                 | 1 statute mile horizontal. |
| Class G:  |                 |                            |
| 1,200 feet or less above the surface (regardless of MSL altitude) |                 |                            |
| For aircraft other than helicopters:                              |                 |                            |
| Day, except as provided in §91.155(b)                             | 1 statute mile  | Clear of clouds.           |
| Night, except as provided in §91.155(b)                           | 3 statute miles | 500 feet below.            |
|   |                 | 1,000 feet above.          |
|   |                 | 2,000 feet horizontal.     |

|  |                 |                            |
|--|-----------------|----------------------------|
| For helicopters:   |                 |                            |
| Day  | ½ statute mile  | Clear of clouds            |
| Night, except as provided in §91.155(b)                                | 1 statute mile  | Clear of clouds.           |
| More than 1,200 feet above the surface but less than 10,000 feet MSL   |                 |                            |
| Day  | 1 statute mile  | 500 feet below.            |
|  |                 | 1,000 feet above.          |
|  |                 | 2,000 feet horizontal.     |
| Night  | 3 statute miles | 500 feet below.            |
|  |                 | 1,000 feet above.          |
|  |                 | 2,000 feet horizontal.     |
| More than 1,200 feet above the surface and at or above 10,000 feet MSL | 5 statute miles | 1,000 feet below.          |
|  |                 | 1,000 feet above.          |
|  |                 | 1 statute mile horizontal. |

(b) *Class G Airspace.* Notwithstanding the provisions of paragraph (a) of this section, the following operations may be conducted in Class G airspace below 1,200 feet above the surface:

(1) *Helicopter.* A helicopter may be operated clear of clouds in an airport traffic pattern within ½ mile of the runway or helipad of intended landing if the flight visibility is not less than ½ statute mile.

(2) *Airplane, powered parachute, or weight-shift-control aircraft.* If the visibility is less than 3 statute miles but not less than 1 statute mile during night hours and you are operating in an airport traffic pattern within ½ mile of the runway, you may operate an airplane, powered parachute, or weight-shift-control aircraft clear of clouds.

(c) Except as provided in §91.157, no person may operate an aircraft beneath the ceiling under VFR within the lateral boundaries of controlled airspace designated to the surface for an airport when the ceiling is less than 1,000 feet.

(d) Except as provided in §91.157 of this part, no person may take off or land an aircraft, or enter the traffic pattern of an airport, under VFR, within the lateral boundaries of the surface areas of Class B, Class C, Class D, or Class E airspace designated for an airport—

(1) Unless ground visibility at that airport is at least 3 statute miles; or

(2) If ground visibility is not reported at that airport, unless flight visibility during landing or takeoff, or while operating in the traffic pattern is at least 3 statute miles.

(e) For the purpose of this section, an aircraft operating at the base altitude of a Class E airspace area is considered to be within the airspace directly below that area.

### **§91.157 Special VFR weather minimums.**

(a) Except as provided in appendix D, section 3, of this part, **special VFR operations may be conducted under the weather minimums and requirements of this section, instead of those contained in §91.155, below 10,000 feet MSL** within the airspace contained by the upward extension of the lateral boundaries of the controlled airspace designated to the surface for an airport.

(b) Special VFR operations may only be conducted—

(1) **With an ATC clearance;**

(2) **Clear of clouds;**

(3) **Except for helicopters, when flight visibility is at least 1 statute mile; and**

(4) **Except for helicopters, between sunrise and sunset (or in Alaska, when the sun is 6 degrees or more below the horizon) unless—**

(i) The person being granted the ATC clearance meets the applicable requirements for instrument flight under part 61 of this chapter; and

(ii) The aircraft is equipped as required in §91.205(d).

(c) No person may take off or land an aircraft (other than a helicopter) under special VFR—

(1) Unless **ground visibility is at least 1 statute mile**; or

(2) If ground visibility is not reported, unless flight visibility is at least 1 statute mile. For the purposes of this paragraph, the term flight **visibility includes the visibility from the cockpit** of an aircraft in takeoff position if:

(i) **The flight is conducted under this part 91; and**

(ii) **The airport at which the aircraft is located is a satellite airport that does not have weather reporting capabilities.**

(d) The determination of visibility by a pilot in accordance with paragraph (c)(2) of this section is not an official weather report or an official ground visibility report.

### **§91.159 VFR cruising altitude or flight level.**

Except while holding in a holding pattern of 2 minutes or less, or while turning, each person operating an aircraft under VFR in level cruising flight more than 3,000 feet above the surface shall maintain the appropriate altitude or flight level prescribed below, unless otherwise authorized by ATC:

(a) When operating below 18,000 feet MSL and—

(1) On a magnetic course of zero degrees through 179 degrees, any odd thousand foot MSL altitude + 500 feet (such as 3,500, 5,500, or 7,500); or

(2) On a magnetic course of 180 degrees through 359 degrees, any even thousand foot MSL altitude + 500 feet (such as 4,500, 6,500, or 8,500).

(b) When operating above 18,000 feet MSL, maintain the altitude or flight level assigned by ATC.

### **§91.161 Special awareness training required for pilots flying under visual flight rules within a 60-nautical mile radius of the Washington, DC VOR/DME.**

## **Subpart C—Equipment, Instrument, and Certificate Requirements**

### **§91.205 Powered civil aircraft with standard category U.S. airworthiness certificates: Instrument and equipment requirements.**

(a) *General.* Except as provided in paragraphs (c)(3) and (e) of this section, no person may operate a powered civil aircraft with a standard category U.S. airworthiness certificate in any operation described in paragraphs (b) through (f) of this section unless that aircraft contains the instruments and equipment specified in those paragraphs (or FAA-approved equivalents) for that type of operation, and those instruments and items of equipment are in operable condition.

(b) *Visual-flight rules (day).* For VFR flight during the day, the following instruments and equipment are required:

- (1) Airspeed indicator.
- (2) Altimeter.
- (3) Magnetic direction indicator.
- (4) Tachometer for each engine.
- (5) Oil pressure gauge for each engine using pressure system.
- (6) Temperature gauge for each liquid-cooled engine.
- (7) Oil temperature gauge for each air-cooled engine.
- (8) Manifold pressure gauge for each altitude engine.
- (9) Fuel gauge indicating the quantity of fuel in each tank.

(10) Landing gear position indicator, if the aircraft has a retractable landing gear.

(11) For small civil airplanes certificated after March 11, 1996, in accordance with part 23 of this chapter, an approved aviation red or aviation white anticollision light system. In the event of failure of any light of the anticollision light system, operation of the aircraft may continue to a location where repairs or replacement can be made.

(12) If the aircraft is operated for hire over water and beyond power-off gliding distance from shore, approved flotation gear readily available to each occupant and, unless the aircraft is operating under part 121 of this subchapter, at least one pyrotechnic signaling device. As used in this section, "shore" means that area of the land adjacent to the water which is above the high water mark and excludes land areas which are intermittently under water.

(13) An approved safety belt with an approved metal-to-metal latching device for each occupant 2 years of age or older.

(14) For small civil airplanes manufactured after July 18, 1978, an approved shoulder harness for each front seat. The shoulder harness must be designed to protect the occupant from serious head injury when the occupant experiences the ultimate inertia forces specified in §23.561(b)(2) of this chapter. Each shoulder harness installed at a flight crewmember station must permit the crewmember, when seated and with the safety belt and shoulder harness fastened, to perform all functions necessary for flight operations. For purposes of this paragraph—

(i) The date of manufacture of an airplane is the date the inspection acceptance records reflect that the airplane is complete and meets the FAA-approved type design data; and

(ii) A front seat is a seat located at a flight crewmember station or any seat located alongside such a seat.

(15) An emergency locator transmitter, if required by §91.207.

(16) For normal, utility, and acrobatic category airplanes with a seating configuration, excluding pilot seats, of 9 or less, manufactured after December 12, 1986, a shoulder harness for—

(i) Each front seat that meets the requirements of §23.785 (g) and (h) of this chapter in effect on December 12, 1985;

(ii) Each additional seat that meets the requirements of §23.785(g) of this chapter in effect on December 12, 1985.

(17) For rotorcraft manufactured after September 16, 1992, a shoulder harness for each seat that meets the requirements of §27.2 or §29.2 of this chapter in effect on September 16, 1991.

(c) *Visual flight rules (night). For VFR flight at night, the following instruments and equipment are required:*

(1) Instruments and equipment specified in paragraph (b) of this section.

(2) Approved position lights.

(3) An approved aviation red or aviation white anticollision light system on all U.S.-registered civil aircraft. Anticollision light systems initially installed after August 11, 1971, on aircraft for which a type certificate was issued or applied for before August 11, 1971, must at least meet the anticollision light standards of part 23, 25, 27, or 29 of this chapter, as applicable, that were in effect on August 10, 1971, except that the color may be either aviation red or aviation white. In the event of failure of any light of the anticollision light system, operations with the aircraft may be continued to a stop where repairs or replacement can be made.

(4) If the aircraft is operated for hire, one electric landing light.

(5) An adequate source of electrical energy for all installed electrical and radio equipment.

(6) One spare set of fuses, or three spare fuses of each kind required, that are accessible to the pilot in flight.

(d) *Instrument flight rules.* For IFR flight, the following instruments and equipment are required:

(1) Instruments and equipment specified in paragraph (b) of this section, and, for night flight, instruments and equipment specified in paragraph (c) of this section.

(2) Two-way radio communication and navigation equipment suitable for the route to be flown.

(3) Gyroscopic rate-of-turn indicator, except on the following aircraft:

(i) Airplanes with a third attitude instrument system usable through flight attitudes of 360 degrees of pitch and roll and installed in accordance with the instrument requirements prescribed in §121.305(j) of this chapter; and

(ii) Rotorcraft with a third attitude instrument system usable through flight attitudes of  $\pm 80$  degrees of pitch and  $\pm 120$  degrees of roll and installed in accordance with §29.1303(g) of this chapter.

(4) Slip-skid indicator.

(5) Sensitive altimeter adjustable for barometric pressure.

(6) A clock displaying hours, minutes, and seconds with a sweep-second pointer or digital presentation.

(7) Generator or alternator of adequate capacity.

(8) Gyroscopic pitch and bank indicator (artificial horizon).

(9) Gyroscopic direction indicator (directional gyro or equivalent).

(e) *Flight at and above 24,000 feet MSL (FL 240).* If VOR navigation equipment is required under paragraph (d)(2) of this section, no person may operate a U.S.-registered civil aircraft within the 50 states and the District of Columbia at or above FL 240 unless that aircraft is equipped with approved DME or a suitable RNAV system. When the DME or RNAV system required by this paragraph fails at and above FL 240, the pilot in command of the aircraft must notify ATC immediately, and then may continue operations at and above FL 240 to the next airport of intended landing where repairs or replacement of the equipment can be made.

(f) *Category II operations.* The requirements for Category II operations are the instruments and equipment specified in—

#### **§91.207 Emergency locator transmitters.**

(a) Except as provided in paragraphs (e) and (f) of this section, **no person may operate a U.S.-registered civil airplane unless—**

(1) **There is attached to the airplane an approved automatic type emergency locator transmitter that is in operable condition for the following operations, except that after June 21, 1995, an emergency locator transmitter that meets the requirements of TSO-C91 may not be used for new installations:**

(i) Those operations governed by the supplemental air carrier and commercial operator rules of parts 121 and 125;

(ii) Charter flights governed by the domestic and flag air carrier rules of part 121 of this chapter; and

(iii) Operations governed by part 135 of this chapter; or

(2) For operations other than those specified in paragraph (a)(1) of this section, there must be attached to the airplane an approved personal type or an approved automatic type emergency locator transmitter that is in operable condition, except that after June 21, 1995, an emergency locator transmitter that meets the requirements of TSO-C91 may not be used for new installations.

(b) Each emergency locator transmitter required by paragraph (a) of this section **must be attached to the airplane in such a manner that the probability of damage to the transmitter in the event of crash impact is minimized. Fixed and deployable automatic type transmitters must be attached to the airplane as far aft as practicable.**

(c) Batteries used in the emergency locator transmitters required by paragraphs (a) and (b) of this section must be **replaced (or recharged, if the batteries are rechargeable)—**

**(1) When the transmitter has been in use for more than 1 cumulative hour; or**

**(2) When 50 percent of their useful life (or, for rechargeable batteries, 50 percent of their useful life of charge) has expired, as established by the transmitter manufacturer under its approval.**

The new expiration date for replacing (or recharging) the battery must be legibly marked on the outside of the transmitter and entered in the aircraft maintenance record. Paragraph (c)(2) of this section does not apply to batteries (such as water-activated batteries) that are essentially unaffected during probable storage intervals.

(d) Each emergency locator transmitter required by paragraph (a) of this section must be **inspected within 12 calendar months after the last inspection** for—

(1) Proper installation;

(2) Battery corrosion;

(3) Operation of the controls and crash sensor; and

(4) The presence of a sufficient signal radiated from its antenna.

(e) Notwithstanding paragraph (a) of this section, **a person may—**

**(1) Ferry a newly acquired airplane from the place where possession of it was taken to a place where the emergency locator transmitter is to be installed; and**

**(2) Ferry an airplane with an inoperative emergency locator transmitter from a place where repairs or replacements cannot be made to a place where they can be made.**

No person other than required crewmembers may be carried aboard an airplane being ferried under paragraph (e) of this section.

## **§91.209 Aircraft lights.**

No person may:

(a) During the period from sunset to sunrise (or, in Alaska, during the period a prominent unlighted object cannot be seen from a distance of 3 statute miles or the sun is more than 6 degrees below the horizon)—

(1) Operate an aircraft unless it has lighted position lights;

(2) Park or move an aircraft in, or in dangerous proximity to, a night flight operations area of an airport unless the aircraft—

(i) Is clearly illuminated;

(ii) Has lighted position lights; or

(iii) is in an area that is marked by obstruction lights;

(3) Anchor an aircraft unless the aircraft—

(i) Has lighted anchor lights; or

(ii) Is in an area where anchor lights are not required on vessels; or

(b) Operate an aircraft that is equipped with an anticollision light system, unless it has lighted anticollision lights. However, the anticollision lights need not be lighted when the pilot-in-command determines that, because of operating conditions, it would be in the interest of safety to turn the lights off.

## **§91.211 Supplemental oxygen.**

(a) *General.* No person may operate a civil aircraft of U.S. registry—

(1) At cabin pressure altitudes above 12,500 feet (MSL) up to and including 14,000 feet (MSL) unless the required minimum flight crew is provided with and uses supplemental oxygen for that part of the flight at those altitudes that is of more than 30 minutes duration;

(2) At cabin pressure altitudes above 14,000 feet (MSL) unless the required minimum flight crew is provided with and uses supplemental oxygen during the entire flight time at those altitudes; and

(3) At cabin pressure altitudes above 15,000 feet (MSL) unless each occupant of the aircraft is provided with supplemental oxygen.

(b) *Pressurized cabin aircraft.* (1) No person may operate a civil aircraft of U.S. registry with a pressurized cabin—

(i) At flight altitudes above flight level 250 unless at least a 10-minute supply of supplemental oxygen, in addition to any oxygen required to satisfy paragraph (a) of this section, is available for each occupant of the aircraft for use in the event that a descent is necessitated by loss of cabin pressurization; and

(ii) At flight altitudes above flight level 350 unless one pilot at the controls of the airplane is wearing and using an oxygen mask that is secured and sealed and that either supplies oxygen at all times or automatically supplies oxygen whenever the cabin pressure altitude of the airplane exceeds 14,000 feet (MSL), except that the one pilot need not wear and use an oxygen mask while at or below flight level 410 if there are two pilots at the controls and each pilot has a

quick-donning type of oxygen mask that can be placed on the face with one hand from the ready position within 5 seconds, supplying oxygen and properly secured and sealed.

(2) Notwithstanding paragraph (b)(1)(ii) of this section, if for any reason at any time it is necessary for one pilot to leave the controls of the aircraft when operating at flight altitudes above flight level 350, the remaining pilot at the controls shall put on and use an oxygen mask until the other pilot has returned to that crewmember's station.

### **§91.215 ATC transponder and altitude reporting equipment and use.**

(a) *All airspace: U.S.-registered civil aircraft.* For operations not conducted under part 121 or 135 of this chapter, ATC transponder equipment installed must meet the performance and environmental requirements of any class of TSO-C74b (Mode A) or any class of TSO-C74c (Mode A with altitude reporting capability) as appropriate, or the appropriate class of TSO-C112 (Mode S).

(b) *All airspace. Unless otherwise authorized or directed by ATC, no person may operate an aircraft in the airspace described in paragraphs (b)(1) through (b)(5) of this section, unless that aircraft is equipped with an operable coded radar beacon transponder having either Mode 3/A 4096 code capability, replying to Mode 3/A interrogations with the code specified by ATC, or a Mode S capability, replying to Mode 3/A interrogations with the code specified by ATC and intermode and Mode S interrogations in accordance with the applicable provisions specified in TSO C-112, and that aircraft is equipped with automatic pressure altitude reporting equipment having a Mode C capability that automatically replies to Mode C interrogations by transmitting pressure altitude information in 100-foot increments. This requirement applies—*

(1) *All aircraft.* In Class A, Class B, and Class C airspace areas;

(2) *All aircraft.* In all airspace within 30 nautical miles of an airport listed in appendix D, section 1 of this part from the surface upward to 10,000 feet MSL;

(c) *Transponder-on operation.* While in the airspace as specified in paragraph (b) of this section or in all controlled airspace, each person operating an aircraft equipped with an operable ATC transponder maintained in accordance with §91.413 of this part shall operate the transponder, including Mode C equipment if installed, and shall reply on the appropriate code or as assigned by ATC.

(d) *ATC authorized deviations.* Requests for ATC authorized deviations must be made to the ATC facility having jurisdiction over the concerned airspace within the time periods specified as follows:

(1) For operation of an aircraft with an operating transponder but without operating automatic pressure altitude reporting equipment having a Mode C capability, the request may be made at any time.

(2) For operation of an aircraft with an inoperative transponder to the airport of ultimate destination, including any intermediate stops, or to proceed to a place where suitable repairs can be made or both, the request may be made at any time.

(3) For operation of an aircraft that is not equipped with a transponder, the request must be made at least one hour before the proposed operation.

## **Subpart D—Special Flight Operations**

### **§91.303 Aerobatic flight.**

*No person may operate an aircraft in aerobatic flight—*

(a) *Over any congested area of a city, town, or settlement;*

(b) Over an open air assembly of persons;

(c) Within the lateral boundaries of the surface areas of Class B, Class C, Class D, or Class E airspace designated for an airport;

(d) Within 4 nautical miles of the center line of any Federal airway;

(e) Below an altitude of 1,500 feet above the surface; or

(f) When flight visibility is less than 3 statute miles.

For the purposes of this section, aerobatic flight means an intentional maneuver involving an abrupt change in an aircraft's attitude, an abnormal attitude, or abnormal acceleration, not necessary for normal flight.

#### **§91.305 Flight test areas.**

No person may flight test an aircraft except over open water, or sparsely populated areas, having light air traffic.

### **Subpart E—Maintenance, Preventive Maintenance, and Alterations**

#### **§91.403 General.**

(a) The owner or operator of an aircraft is primarily responsible for maintaining that aircraft in an airworthy

#### **§91.409 Inspections.**

(a) Except as provided in paragraph (c) of this section, no person may operate an aircraft unless, within the preceding 12 calendar months, it has had—

(1) An annual inspection in accordance with part 43 of this chapter and has been approved for return to service by a person authorized by §43.7 of this chapter; or

(2) An inspection for the issuance of an airworthiness certificate in accordance with part 21 of this chapter.

No inspection performed under paragraph (b) of this section may be substituted for any inspection required by this paragraph unless it is performed by a person authorized to perform annual inspections and is entered as an “annual” inspection in the required maintenance records.

(b) Except as provided in paragraph (c) of this section, no person may operate an aircraft carrying any person (other than a crewmember) for hire, and no person may give flight instruction for hire in an aircraft which that person provides, unless within the preceding 100 hours of time in service the aircraft has received an annual or 100-hour inspection and been approved for return to service in accordance with part 43 of this chapter or has received an inspection for the issuance of an airworthiness certificate in accordance with part 21 of this chapter. The 100-hour limitation may be exceeded by not more than 10 hours while en route to reach a place where the inspection can be done. The excess time used to reach a place where the inspection can be done must be included in computing the next 100 hours of time in service.

(c) Paragraphs (a) and (b) of this section **do not apply to—**

(1) An aircraft that carries a special flight permit, a current experimental certificate, or a light-sport or provisional airworthiness certificate;

### **§91.413 ATC transponder tests and inspections.**

(a) No persons may use an ATC transponder that is specified in 91.215(a), 121.345(c), or §135.143(c) of this chapter unless, within the preceding 24 calendar months, the ATC transponder has been tested and inspected and

### **§91.417 Maintenance records.**

(a) Except for work performed in accordance with §§91.411 and 91.413, **each registered owner or operator shall keep the following records for the periods specified in paragraph (b) of this section:**

(1) **Records of the maintenance, preventive maintenance, and alteration and records of the 100-hour, annual, progressive, and other required or approved inspections, as appropriate, for each aircraft (including the airframe) and each engine, propeller, rotor, and appliance of an aircraft. The records must include—**

(i) A description (or reference to data acceptable to the Administrator) of the work performed; and

(ii) The date of completion of the work performed; and

(iii) The signature, and certificate number of the person approving the aircraft for return to service.

(2) Records containing the following information:

(i) The total time in service of the airframe, each engine, each propeller, and each rotor.

(ii) The current status of life-limited parts of each airframe, engine, propeller, rotor, and appliance.

(iii) The time since last overhaul of all items installed on the aircraft which are required to be overhauled on a specified time basis.

(iv) The current inspection status of the aircraft, including the time since the last inspection required by the inspection program under which the aircraft and its appliances are maintained.

(v) The current status of applicable airworthiness directives (AD) and safety directives including, for each, the method of compliance, the AD or safety directive number and revision date. If the AD or safety directive involves recurring action, the time and date when the next action is required.

(vi) Copies of the forms prescribed by §43.9(d) of this chapter for each major alteration to the airframe and currently installed engines, rotors, propellers, and appliances.

**(b) The owner or operator shall retain the following records for the periods prescribed:**

(1) The records specified in paragraph (a)(1) of this section shall be retained until the work is repeated or superseded by other work or for 1 year after the work is performed.

(2) The records specified in paragraph (a)(2) of this section shall be retained and transferred with the aircraft at the time the aircraft is sold.

(3) A list of defects furnished to a registered owner or operator under §43.11 of this chapter shall be retained until the defects are repaired and the aircraft is approved for return to service.

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## PART 103—ULTRALIGHT VEHICLES

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### Subpart A—General

#### §103.1 Applicability.

This part prescribes rules governing the operation of ultralight vehicles in the United States. For the purposes of this part, an ultralight vehicle is a vehicle that:

- (a) Is used or intended to be used for manned operation in the air by **a single occupant**;
- (b) Is used or intended to be used **for recreation or sport purposes only**;
- (c) **Does not have any U.S. or foreign airworthiness certificate**; and
- (d) **If unpowered, weighs less than 155 pounds**; or
- (e) **If powered:**
  - (1) **Weighs less than 254 pounds empty weight**, excluding floats and safety devices which are intended for deployment in a potentially catastrophic situation;
  - (2) Has a **fuel capacity not exceeding 5 U.S. gallons**;
  - (3) Is **not capable of more than 55 knots calibrated airspeed at full power in level flight**; and
  - (4) Has a **power-off stall speed which does not exceed 24 knots calibrated airspeed**.

### Subpart B—Operating Rules

#### §103.9 Hazardous operations.

- (a) No person may operate any ultralight vehicle in a manner that creates a hazard to other persons or property.
- (b) No person may allow an object to be dropped from an ultralight vehicle if such action creates a hazard to other persons or property.

#### §103.11 Daylight operations.

- (a) No person may operate an ultralight vehicle except between the hours of **sunrise and sunset**.
- (b) Notwithstanding paragraph (a) of this section, ultralight vehicles **may be operated during the twilight periods 30 minutes before official sunrise and 30 minutes after official sunset** or, in Alaska, during the period of civil twilight as defined in the Air Almanac, if:
  - (1) **The vehicle is equipped with an operating anticollision light visible for at least 3 statute miles**; and
  - (2) **All operations are conducted in uncontrolled airspace**.

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