

§61.87 Solo requirements for student pilots.

Modified for ASEL

24 July 2018

(a) *General.* A student pilot may not operate an aircraft in solo flight unless that student has met the requirements of this section. The term “solo flight” as used in this subpart means that flight time during which a student pilot is the sole occupant of the aircraft or that flight time during which the student performs the duties of a pilot in command of a gas balloon or an airship requiring more than one pilot flight crewmember.

(b) *Aeronautical knowledge.* A student pilot must demonstrate satisfactory aeronautical knowledge on a knowledge test that meets the requirements of this paragraph:

- (1) The test must address the student pilot's knowledge of—
 - (i) Applicable sections of parts 61 and 91 of this chapter;
 - (ii) Airspace rules and procedures for the airport where the solo flight will be performed; and
 - (iii) Flight characteristics and operational limitations for the make and model of aircraft to be flown.
- (2) The student's authorized instructor must—
 - (i) Administer the test; and
 - (ii) At the conclusion of the test, review all incorrect answers with the student before authorizing that student to conduct a solo flight.

(c) *Pre-solo flight training.* Prior to conducting a solo flight, a student pilot must have:

- (1) Received and logged flight training for the maneuvers and procedures of this section that are appropriate to the make and model of aircraft to be flown; and
- (2) Demonstrated satisfactory proficiency and safety, as judged by an authorized instructor, on the maneuvers and procedures required by this section in the make and model of aircraft or similar make and model of aircraft to be flown.

(d) *Maneuvers and procedures for pre-solo flight training in a single-engine airplane.* A student pilot who is receiving training for a single-engine airplane rating or privileges must receive and log flight training for the following maneuvers and procedures:

- (1) Proper flight preparation procedures, including preflight planning and preparation, powerplant operation, and aircraft systems;
- (2) Taxiing or surface operations, including runups;
- (3) Takeoffs and landings, including normal and crosswind;
- (4) Straight and level flight, and turns in both directions;
- (5) Climbs and climbing turns;
- (6) Airport traffic patterns, including entry and departure procedures;
- (7) Collision avoidance, windshear avoidance, and wake turbulence avoidance;
- (8) Descents, with and without turns, using high and low drag configurations;
- (9) Flight at various airspeeds from cruise to slow flight;
- (10) Stall entries from various flight attitudes and power combinations with recovery initiated at the first indication of a stall, and recovery from a full stall;
- (11) Emergency procedures and equipment malfunctions;
- (12) Ground reference maneuvers;
- (13) Approaches to a landing area with simulated engine malfunctions;
- (14) Slips to a landing; and
- (15) Go-arounds.

(e) *Maneuvers and procedures for pre-solo flight training in a multiengine airplane.* Omitted

(f) *Maneuvers and procedures for pre-solo flight training in a helicopter.* Omitted.

(g) *Maneuvers and procedures for pre-solo flight training in a gyroplane.* Omitted.

(h) *Maneuvers and procedures for pre-solo flight training in a powered-lift.* Omitted.

(j) *Maneuvers and procedures for pre-solo flight training in an airship.* Omitted.

(k) *Maneuvers and procedures for pre-solo flight training in a balloon.* Omitted .

(m) *Maneuvers and procedures for pre-solo flight training in a weight-shift-control aircraft.* Omitted.

(n) *Limitations on student pilots operating an aircraft in solo flight.* A student pilot may not operate an aircraft in solo flight unless that student pilot has received an endorsement in the student's logbook for the specific make and model aircraft to be flown by an authorized instructor who gave the training within the 90 days preceding the date of the flight.

(o) *Limitations on student pilots operating an aircraft in solo flight at night.* A student pilot may not operate an aircraft in solo flight at night unless that student pilot has received:

(1) Flight training at night on night flying procedures that includes takeoffs, approaches, landings, and go-arounds at night at the airport where the solo flight will be conducted;

(2) Navigation training at night in the vicinity of the airport where the solo flight will be conducted; and

(3) An endorsement in the student's logbook for the specific make and model aircraft to be flown for night solo flight by an authorized instructor who gave the training within the 90-day period preceding the date of the flight.

(p) *Limitations on flight instructors authorizing solo flight.* No instructor may authorize a student pilot to perform a solo flight unless that instructor has—

(1) Given that student pilot training in the make and model of aircraft or a similar make and model of aircraft in which the solo flight is to be flown;

(2) Determined the student pilot is proficient in the maneuvers and procedures prescribed in this section;

(3) Determined the student pilot is proficient in the make and model of aircraft to be flown; and

(4) Endorsed the student pilot's logbook for the specific make and model aircraft to be flown, and that endorsement remains current for solo flight privileges, provided an authorized instructor updates the student's logbook every 90 days thereafter.