

PRIVATE PILOT AIRPLANE REQUIREMENTS Single Engine Land

Simplified Flight Hours for Private Pilot Airplane Single Engine Land Checklist:
Applicant needs to be able to show these times and the specific flights to the examiner

Total flight time in any category and class of aircraft at least **40 hrs**

Dual flight training minimum in any aircraft at least **20 hrs** including:

- 3 hrs dual cross country in a single engine airplane
- 3 hrs dual night time in a single engine airplane
 - Including one dual cross country night flight over 100 nm
 - Including 10 takeoffs and landings at night dual to full stop
- 3 hrs dual instrument time (hood or actual) in single engine airplane
- 3 hrs dual checkride prep in a single engine airplane in past 2 calendar months

Solo flight minimum in single engine airplane **10 hrs** including:

- 5 hrs solo cross country time in single engine airplane
 - Including one flight over 150 nm total, 3 landing points, and at least one leg over 50 nm
- 3 solo takeoffs and landings to a full stop at an airport with a working tower

Night Time is any flight time between the end of evening civil twilight and the start of morning civil twilight. Easiest place to find these is <http://www.airnav.com/KRHV>

Cross Country flight must include a landing at an airport more than 50 nautical (not statute) miles from the *original point of departure*. Additional cross country requirements apply – e.g. night XC must be *over 100nm* total. The long solo XC has to include one leg of over 50 nm, plus be over 150 nm total.

Sec. 61.87 Solo requirements for student pilots

(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:

- (i) 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.

Solo Endorsements:

1. Before FAA knowledge test - endorsement that candidate is prepared for the test
2. Before Solo - BOTH Student Pilot certificate and logbook need to be endorsed for solo flight, for the specific make and model; limitations on solo flights; logbook endorsement only lasts 90 days; tailwheel student must have endorsement for Tailwheel PIC 61.31(i).
3. Pre Solo knowledge test endorsement - logbook also needs to say that the pre-solo test has been satisfactorily completed.

Logbook endorsements are required before any of the following solo operations:

- *Refer to AeroDynamic's syllabus for a guide to solo limitations.
- o Landing at an airport less than 25nm away: solo endorsements and a one-time logbook endorsement for each airport student is allowed to land at.

- Additional airport over 25nm away requires three endorsements, plus CFI must have given them instruction to and from that airport:
 1. Student pilot certificate once for solo cross country
 2. Logbook for solo cross country
 3. One time endorsement for the specific airport for repeated flights
- Solo cross country flight to an airport more than 50nm away requires three endorsements:
 1. Student pilot certificate needs a one time XC endorsement;
 2. Logbook for solo cross country
 3. Each solo XC flight of over 50nm needs a separate specific endorsement

Logging the required training for Checkride Applicants:

The FARs are very specific. The ground training for the Aeronautical Knowledge needed to pass the knowledge test either needs to be logged if given by an instructor, or a home study course can be completed. In either case the candidate must have an endorsement before talking the knowledge test. For the flight proficiency training, the student must have both flight and ground training logged by their instructor showing the areas of operation.

*AeroDynamic provides flight and ground training logs to make this easier. Please ask the office for these.

We have included below the relevant sections from the FARs:

Sec. 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.

Sec. 61.107 Flight proficiency

(a) *General.* A person who applies for a private pilot certificate must receive and log ground and flight training from an authorized instructor on the areas of operation of this section that apply to the aircraft category and class rating sought.

(b) *Areas of operation.*

- 1) For an airplane category rating with a single-engine class rating:
 - i. Preflight preparation;
 - ii. Preflight procedures;
 - iii. Airport and seaplane base operations;
 - iv. Takeoffs, landings, and go-arounds;
 - v. Performance maneuvers;
 - vi. Ground reference maneuvers;
 - vii. Navigation;
 - viii. Slow flight and stalls;
 - ix. Basic instrument maneuvers;
 - x. Emergency operations;
 - xi. Night operations, except as provided in Sec. 61.110 of this part;
 - xii. Postflight procedures.

Sec. 61.109 Aeronautical experience

(a) *For an airplane single-engine rating.* Except as provided in paragraph (i) of this section, a person who applies for a private pilot certificate with an airplane category and single-engine class rating must log at least 40 hours of flight time that includes at least 20 hours of flight training from an authorized instructor and 10 hours of solo flight training in the areas of operation listed in Sec. 61.107(b)(1) of this part, and the training must include at least—

- 1) 3 hours of cross-country flight training in a single-engine airplane;
- 2) 3 hours of night flight training in a single-engine airplane that includes—
 - i. One cross-country flight of over 100 nautical miles total distance;
 - ii. 10 takeoffs and 10 landings to a full stop (with each landing involving a flight in the traffic pattern) at an airport.
- 3) 3 hours of flight training in a single-engine airplane on the control and maneuvering of an airplane solely by reference to instruments, including straight

and level flight, constant airspeed climbs and descents, turns to a heading, recovery from unusual flight attitudes, radio communications, and the use of navigation systems/facilities and radar services appropriate to instrument flight;

4) 3 hours of flight training in preparation for the practical test in a single-engine airplane, which must have been performed within 60 days preceding the date of the test; and

- 5) 10 hours of solo flight time in a single-engine airplane, consisting of at least—
- i. 5 hours of solo cross-country time;
 - ii. One solo cross-country flight of at least 150 nautical miles total distance, with full-stop landings at a minimum of three points, and one segment of the flight consisting of a straight-line distance of at least 50 nautical miles between the takeoff and landing locations;
 - iii. Three takeoffs and three landings to a full stop (with each landing involving a flight in the traffic pattern) at an airport with an operating control tower.

Endorsements for the checkride, CFI needs to certify:

1. All solo endorsements are correct –
 - a. pre-solo knowledge
 - b. initial solo
 - c. any additional 90-day solo
 - d. solo xc
 - e. student pilot certificate endorsements, and any others that apply.
2. FAR 61.39(a)(6)(i, ii, iii) Prerequisites for practical tests
 - a. Reviewed areas of deficiency on knowledge test report
 - b. Received and logged training for checkride within 2 calendar months
 - c. Is prepared for the practical test
3. Endorsement certifying that all ground and flight training has been completed per the FARs for their license/rating.

Example: Private Pilot Practical Test Endorsement

I certify I have reviewed the knowledge test results with _____ per FAR 61.39(a)(6)(iii) and resolved the areas of deficiency. I certify that he/she has received and logged the ground instruction required by FAR 61.105(a) and (b) (1) through (13), the flight instruction required by FAR 61.107(a) and (b)(1)(i) through (xii), and 3 hours of flight training in preparation for the practical test within the preceding two calendar months per FAR 61.109(a)(4) and FAR 61.39(a)(6)(i). I certify I find him/her competent to perform each pilot operation safely as a private pilot per FAR 61.39(a)(6)(ii).

Additionally, verify all paperwork (IACRA, medical, expiration dates, hour minimums, etc.) are correct. AeroDynamic has ground and flight log sheet for each license or rating to make it easier for student and examiner to verify the required ground and flight training have been completed.