

PRIVATE PILOT GROUND SCHOOL

MODULE 3-1 — SOLO REQUIREMENTS AND ENDORSEMENTS

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FACTS TO REMEMBER

KNOW THESE COLD

- A student pilot may not fly solo until every requirement of 61.87 is met.
*Source: 61.87(a) eCFR**
- "Solo flight" means flight time when the student pilot is the sole occupant of the aircraft.
*Source: 61.87(a) eCFR**
- Before solo, a student must show satisfactory knowledge on a written knowledge test — the pre-solo exam.
*Source: 61.87(b) eCFR**
- The pre-solo test must cover the applicable sections of parts 61 and 91.
*Source: 61.87(b)(1)(i) eCFR**
- The pre-solo test must cover airspace rules and procedures for the airport where the solo will be flown.
*Source: 61.87(b)(1)(ii) eCFR**
- The pre-solo test must cover the flight characteristics and operational limitations of the make and model to be flown.
*Source: 61.87(b)(1)(iii) eCFR**
- The student's own authorized instructor administers the pre-solo test.
*Source: 61.87(b)(2)(i) eCFR**
- The instructor must review every incorrect answer with the student before authorizing solo.
*Source: 61.87(b)(2)(ii) eCFR**
- Before solo, the student must have received and logged flight training in the 61.87(d) maneuvers for the make and model.
*Source: 61.87(c)(1) eCFR**
- Before solo, an authorized instructor must judge the student proficient and safe in those maneuvers, in the make and model (or a similar make and model).
*Source: 61.87(c)(2) eCFR**
- 61.87(d) lists 15 required pre-solo training areas for a single-engine airplane, from preflight preparation through go-arounds.
*Source: 61.87(d) eCFR**
- Pre-solo training includes stall entries from various attitudes and power settings, with recovery at the first indication and recovery from a full stall.
*Source: 61.87(d)(10) eCFR**
- Pre-solo training includes emergency procedures, equipment malfunctions, and approaches with simulated engine failure.
*Source: 61.87(d)(11),(13) eCFR**
- Pre-solo training includes slips to a landing and go-arounds.
*Source: 61.87(d)(14),(15) eCFR**
- Solo flight requires a logbook endorsement for the specific make and model of aircraft to be flown.
*Source: 61.87(n) eCFR**

- The solo endorsement must come from an authorized instructor who gave training within the 90 days before the flight.

*Source: 61.87(n) eCFR**

- A solo endorsement for one make and model does not authorize solo flight in a different make and model.

*Source: 61.87(n) eCFR**

- Before any solo flight, the student confirms the solo endorsement is still inside its 90-day window — there is no grace period.

*Source: 61.87(n) eCFR**

- Night solo requires night training in takeoffs, approaches, landings, and go-arounds at the airport where the night solo will be flown.

*Source: 61.87(o)(1) eCFR**

- Night solo requires night navigation training in the vicinity of that airport.

*Source: 61.87(o)(2) eCFR**

- Night solo requires its own make-and-model endorsement, given by an instructor who provided the training within the preceding 90 days.

*Source: 61.87(o)(3) eCFR**

- No instructor may authorize a solo unless that instructor gave the student training in the make and model (or a similar make and model).

*Source: 61.87(p)(1) eCFR**

- The authorizing instructor must have determined the student proficient in the 61.87 maneuvers and procedures.

*Source: 61.87(p)(2) eCFR**

- The authorizing instructor must have determined the student proficient in the specific make and model to be flown.

*Source: 61.87(p)(3) eCFR**

- The solo endorsement stays current only while an authorized instructor updates the student's logbook every 90 days.

*Source: 61.87(p)(4) eCFR**

- A student pilot may not act as pilot in command with a passenger aboard.

*Source: 61.89(a)(1) eCFR**

- A student pilot may not carry property for compensation or hire.

*Source: 61.89(a)(2) eCFR**

- A student pilot may not fly for compensation or hire.

*Source: 61.89(a)(3) eCFR**

- A student pilot may not fly in furtherance of a business.

*Source: 61.89(a)(4) eCFR**

- A student pilot may not make international flights.

*Source: 61.89(a)(5) eCFR**

- Solo by day requires flight or surface visibility of at least 3 statute miles.

*Source: 61.89(a)(6) eCFR**

- Solo at night requires flight or surface visibility of at least 5 statute miles.

*Source: 61.89(a)(6) eCFR**

- The 61.89 visibility limits apply in flight, not just at takeoff — if visibility drops below them en route, the student must land or turn back.

Source: 61.89(a)(6) eCFR*

- A student pilot may not fly when the flight cannot be made with visual reference to the surface.

Source: 61.89(a)(7) eCFR*

- Climbing above a solid cloud layer on a solo flight is prohibited even in clear air, because surface reference is lost.

Source: 61.89(a)(7) eCFR*; answer key item 27

- Any limitation an authorized instructor writes in the student's logbook is binding — wind, ceiling, route, or anything else.

Source: 61.89(a)(8) eCFR*

- A student pilot may not act as a required crewmember on an aircraft that requires more than one pilot.

Source: 61.89(b) eCFR*

- The pre-solo exam gates the first solo lesson: it must be taken, graded, and every miss corrected with the instructor first.

Source: 61.87(b) eCFR*; NA (gates L18, MODULES.md)

- Schedule pressure never moves a solo gate: a lapsed 90-day endorsement or below-minimums weather ends the solo plan, whoever is waiting.

Source: 61.87(n), 61.89(a)(6) eCFR*; NA

GOING DEEPER

- A current day-solo endorsement by itself never authorizes solo flight at night.

Source: 61.87(o) eCFR*

- The 90-day update can be made by any authorized instructor who meets 61.87(p) — it does not have to be the original endorser.

Source: 61.87(p) eCFR*

- The single exception to the international ban is the named Alaska–Yukon training route (Haines/Gustavus/Juneau to Whitehorse and back).

Source: 61.89(a)(5) eCFR*

- The student pilot's visibility limits are stricter than basic VFR — a day that is legal for a private pilot can still be illegal for a student solo.

Source: 61.89(a)(6), 91.155 eCFR*

- Solo privileges live in the logbook, not on the certificate: the endorsements are the authorization, and on solo cross-countries the logbook and student certificate must be carried as evidence of them.

Source: 61.87, 61.51(i)(2) eCFR*

THE REGULATIONS BEHIND THIS MODULE

14 CFR 61.87 – Solo requirements for student pilots

A student pilot may not operate an aircraft in solo flight unless the student has passed the pre-solo knowledge test, received and logged the pre-solo training, been judged proficient by an authorized instructor, and holds a make-and-model endorsement from an instructor who gave training within the preceding 90 days.

Where it goes deeper: This module, in the gate, training, endorsement, and instructor Legs.

14 CFR 61.89 – General limitations

A student pilot may not act as pilot in command carrying a passenger, for compensation or hire, in furtherance of a business, on an international flight, with visibility below 3 statute miles by day or 5 at night, without visual reference to the surface, or contrary to any limitation an authorized instructor placed in the logbook.

Where it goes deeper: This module, in the limitations Legs.