

CHAPTER 9: REGULATIONS

The Federal Aviation Administration (FAA) is responsible for regulating civil aviation in the United States. The FAA's goal is to ensure the safety of both the flying and non-flying public.

The Federal Aviation Regulations (FARs) are the FAA's rules governing all flight operations. The FARs constitute Title 14 of the Code of Federal Regulations. They are updated as necessary and published each year.

The FARs are divided into "parts", each of which covers a specific area of operation. The parts most pertinent to the glider pilot are:

- Part 1: Definitions and Abbreviations
- Part 43: Maintenance, Preventive Maintenance, Rebuilding, and Alteration
- Part 61: Certification: Pilots, Flight Instructors, and Ground Instructors
- Part 91: General Operating and Flight Rules
- Part 830: Notification and Reporting of Aircraft Accidents or Incidents and Overdue Aircraft, and Preservation of Aircraft Wreckage, Mail, Cargo, and Records

At the beginning of each part is a table of contents listing the topics covered. At the beginning of the FARs, there is also a comprehensive index listing the part, section, and page number of every entry.

While you should be very familiar with the FARs, memorizing every regulation would be burdensome if not unrealistic. Instead, you should strive to know what regulations exist and where to find them if necessary. For instance, if you know that there is a regulation requiring the completion of a certain number of flights within a certain time period in order to carry a passenger, you will know to look it up if you haven't flown for two months and a friend wants a ride [61.57(a)]. Are you legal? Look it up! The notation "[61.57(a)]" means that the rule can be found in Part 61, Section 57, Subsection (a).

Some regulations may seem overly conservative, but remember that they apply to all aircraft, not just to gliders. It is important to realize that while an individual regulation may not seem to make much sense to a glider pilot, the regulations are meant to work as a whole to ensure a safe flying environment. Therefore, it is important that all regulations are adhered to, so as not to inadvertently endanger other pilots, passengers, or people or property on the ground.

The FARs are written in a “legalese” style that while very precise, can also be very difficult to read and understand. The following chapter presents many of these regulations in plain English. If you need the precise wording of a regulation, refer to the appropriate section in the FARs.

9.1 Definitions and Abbreviations

Abbreviations and definition of terms used in the FARs can be found in Part 1 of the FARs. What follows is a subset of that list, which includes only those items of particular interest to the glider pilot.

AGL - Above ground level

Category - As used with respect to airmen, means a broad classification of aircraft, such as airplane, rotorcraft, glider, or lighter-than-air.

As used with respect to aircraft, means a grouping of intended uses or operating limitation, such as transport, normal, utility, acrobatic, etc.

Classes - As used with respect to airmen, means a subgroup of aircraft within a category, such as single engine, multiengine, land, water within the airplane category, or airship and free balloon within the lighter-than-air category.

As used with respect to aircraft, means a broad grouping based on similar characteristics of propulsion, flight, or landing, such as airplane, rotorcraft, glider, balloon, landplane, and seaplane.

Flight Time - Pilot time that commences when the glider is towed for the purpose of flight and ends when the glider comes to rest after landing.

Flight Visibility - The average forward horizontal distance, from the cockpit of an aircraft in flight, at which prominent unlighted objects may be seen and identified.

Glider - A heavier-than-air aircraft that is supported in flight by the dynamic reaction of the air against its lifting surfaces and whose free flight does not depend principally on an engine.

IAS - Indicated airspeed

IFR - Instrument flight rules

IFR Conditions - Weather conditions below the minimum required for flight under visual flight rules.

Maintenance - Inspection, overhaul, repair, preservation, and the replacement of parts, but excludes preventive maintenance.

MSL - Mean sea level

Night - The time between the end of evening civil twilight and the beginning of morning civil twilight, as published in the American Air Almanac, converted to local time. Evening civil twilight begins at sunset and extends until the sun is 6° below the horizon. Morning civil twilight begins when the sun is 6° below the horizon, and extends until sunrise.

Operational Control - The exercise of authority over initiating, conducting, or terminating a flight.

Pilotage - Navigation by visual reference to landmarks.

Pilot in Command (PIC) - The person who has final authority and responsibility for the operation and safety of the flight, has been designated as pilot in command before or during the flight, and holds the appropriate ratings for the conduct of the flight.

Preventive Maintenance - Simple or minor preservation operations and the replacement of small standard parts not involving complex assembly operations.

Rating - The conditions, privileges, and limitations set forth in a certificate.

TAS - True airspeed

V_A - Design maneuvering speed

V_{FE} - Maximum flap extended speed

V_{LE} - Maximum landing gear extended speed

V_{LO} - Maximum landing gear operating speed

V_{NE} - Never-exceed speed

V_{NO} - Maximum structural cruising speed

V_S - Stalling speed, or the minimum steady flight speed at which the aircraft is controllable

V_{SO} - Stalling speed, or minimum steady flight speed in the landing configuration

VFR - Visual flight rules

9.2 Maintenance Requirements

Regulations regarding maintenance requirements can be found in Part 43 of the FARs. What follows is a subset consisting of the regulations most pertinent to glider pilots. For the complete regulations, refer to the specific section in the FARs.

Preventive Maintenance

The holder of a pilot certificate may perform preventive maintenance on any aircraft owned or operated by that pilot [43.3(g)]. Preventive maintenance is limited to such things as replacing tires; lubrication of parts not requiring disassembly other than removal of nonstructural items such as cover plates; repairing upholstery and cockpit furnishings; making small simple repairs to fairings, nonstructural cover plates, or cowlings; replacing safety belts; replacing or removing batteries; or removing and replacing self-contained, front instrument panel-mounted navigation and communications devices [Part 43, Appendix A(c)].

Approving Return to Service

After maintenance, repairs, or alterations have been made on an aircraft, an authorized person [43.7] must approve the aircraft's return to service [43.5] and record a description of the work performed; the name of the person performing the work; and their signature, certificate number, and kind of certificate held [43.9(a)]. After preventive maintenance, a person holding at least a private pilot certificate may approve an aircraft for return to service [43.7(f)]. For all other maintenance, a certified mechanic or authorized inspector must approve the return to service [43.7(a)-(d)].

Record of Required Inspections

A record of the annual inspection, and if required, the 100-hour inspection, must be included in the maintenance records of the glider [43.11(a)]. The record must include the type of inspection, a brief description of the extent of the inspection, the date of the inspection, and the aircraft total time in service.

9.3 Certification of Pilots

Regulations regarding the certification of pilots can be found in Part 61 of the FARs. What follows is a subset consisting of the regulations most pertinent to glider pilots. For more information, refer to the specific section in the FARs.

Required Documents

To act as pilot in command, you must carry your valid pilot certificate [61.3(a)]. A student pilot certificate and a private pilot certificate are both pilot certificates. As glider pilots, we do not need to have or carry a medical certificate [61.3(c)(2)(iii)]. You must present your pilot certificate for inspection when requested by any representative of the FAA, the National Transportation Safety Board (NTSB), or any federal, state, or local law enforcement officer [61.3(i)(1)-(3)].

Limitations on a Certificate

The certificate you will receive when you complete your training and pass your practical test will be a private pilot certificate with a glider rating [61.5(a)-(b)]. If you have any physical limitations that will not adversely affect safety but will

prevent you from performing a required task on the practical test, you may still be issued a certificate, but with the appropriate limitations [61.13(b)(1)].

Denying or Revoking Certification for Drug and Alcohol Use

Your application for a pilot certificate or rating can be denied for a period of one year, or if you already have a certificate, it can be revoked, if you are convicted of any federal or state crime regarding drugs [61.15(a)], if you break any of the FARs regarding drug or alcohol use [61.15(b)], or if twice within three years you are convicted of driving under the influence or driving while impaired by alcohol or drugs [61.15(c)-(d)].

If you are convicted of driving under the influence of alcohol or drugs you must inform the Civil Aviation Security Division of the FAA within 60 days [61.15(e)].

Duration of Pilot Certificates

A student certificate expires 24 months after it is issued [61.19(b)]. This should be plenty of time to get your private pilot certificate!

Unless it is revoked, a private pilot certificate does not expire [61.19(c)]. The only exception to this rule is if the pilot certificate is issued on the basis of a foreign pilot license. In this case, the U.S. certificate expires when the foreign license expires.

Prerequisites for Student Pilot Certificate/Solo

To be eligible for a student pilot certificate for gliders, an applicant must be at least 14 years old and be able to read, speak, write, and understand the English language [61.83(b)-(c)]. The student must obtain the student pilot certificate before solo, since the certificate, along with the student's logbook, must be endorsed by the instructor before solo [61.87(l)(1)-(2)]. You can apply for a student certificate at any Flight Standards District Office (FSDO).

When applying for a student pilot certificate, you must present identification that contains your photograph, signature, date of birth, and actual residential address [61.35(a)(2)]. This can be a problem for a student without a driver's license. If you don't have a driver's license, you should make sure to apply for a government ID card (apply at the DMV) or for a passport well in advance of when you expect to solo.

Before soloing, the student must pass a knowledge test administered by the instructor that covers the items listed in 61.87(b). This can be an oral or written test. At the end of the test, the instructor must review with the student all incorrect answers. The student must also have received and logged the flight instruction [61.87(c)] and be proficient at the procedures listed in 61.87(i).

Student Pilot Limitations

A student pilot may not carry a passenger [61.89(a)(1)] or fly for compensation or hire [61.89(a)(3)]. A student pilot cannot fly solo if the visibility is less than 3

statute miles [61.89(a)(6)], and/or if the student cannot maintain visual contact with the ground [61.89(a)(7)].

Prerequisites for the Knowledge Test

If you already have a private pilot certificate in a different category (such as airplane), you do not have to take the FAA knowledge test [61.63(b)(5)].

Before taking the FAA knowledge test (often referred to as the “written” test), the student must have a logbook endorsement saying that the student has either received ground instruction in all required areas or has completed a home-study course, and is prepared to take the knowledge test [61.35(a)(1)].

When taking the knowledge test, the student must present the same identification required to obtain the student license, which must include the student’s photograph, signature, date of birth, and actual residential address [61.35(a)(2)].

Prerequisites for the Practical Test

To be eligible to take the practical test (the oral and flight test) for gliders, you must be at least 16 years old [61.103(b)] and be able to read, speak, write, and understand the English language [61.103(c)].

Before taking the practical test, you must have passed the knowledge test within the previous 24 months [61.39(a)(1)] and present the knowledge test report at the time of the practical test [61.39(a)(2)] (not required for “transition” pilots, i.e., if you already have a private certificate in another category).

Before taking the practical test, you must meet certain minimum flight experience requirements. If the glider rating will be your first rating, you must have logged at least 10 hours of flight time [61.109(f)(1)], with a minimum of 20 flights and 3 training flights within the 60 days preceding the practical test [61.109(f)(1)(i)]. In addition, you must have at least 2 hours of solo time, with at least 10 flights [61.109(f)(1)(ii)].

If you already have at least 40 hours of flight time logged in heavier-than-air aircraft, then you only need to have logged a minimum of 3 hours of flight time [61.109(f)(2)], with a minimum of 3 training flights within the 60 days preceding the practical test [61.109(f)(2)(ii)]. In addition, you must have at least 10 solo flights [61.109(f)(2)(i)].

To take the practical test, you must have an instructor’s endorsement in your logbook stating that you have logged training time in the last 60 days in preparation for the practical test, that you are prepared for the practical test, and that you have demonstrated satisfactory knowledge in areas that you missed on the knowledge test [61.39(a)(6)].

Private Pilot Limitations

A private glider pilot cannot carry passengers (or property) for compensation or hire [61.113(a)]. When flying with passengers, the pilot must pay at least the pro