

Glider Training Curriculum

Overview

Welcome to the world of soaring. Flying for the sheer pleasure of it.

Your training will prepare you not just to fly the aircraft, but to use various types of natural lift to remain aloft and go long distances. You'll be trained to operate safely within the national airspace system, handle emergencies, and to be a safe and competent pilot.

You'll be able to earn achievement badges, sponsored by the Soaring Society of America (SSA) along the way.

The minimum requirements, privileges and responsibilities of each pilot level, are set forth in the Federal Aviation Regulations (FARs), part 61. Along with other industry standards and practices.

<https://www.ecfr.gov/current/title-14/chapter-I/subchapter-D/part-61>

Your training will consist of a dual track program of ground and flight training.

Both aspects are supplemented with materials, videos, and other resources listed on TheSoaringPage.com

Ground Training

Much of the ground study will be home study with guidance from your instructor. There are numerous resources for you to accomplish this ground training in the most cost and time efficient way. The ground training will address the academic subjects which you must know to safely operate the aircraft, however they do not all directly relate to the hands-on skill that the flight training will concentrate on.

Recommended sources include:

Glider Pilot's Handbook of Aeronautical Knowledge, Russel Holtz (gliderbooks.com)

Glider Flying Handbook (FAA)

Pilot's Handbook of Aeronautical Knowledge (FAA)

Dauntless Aviation ground school and test prep courses (<https://www.dauntless-soft.com/>) \$55

Flight Training

The flight training portion can be broken down into several stages as you increase in knowledge, skill, and responsibility.

- Initial
- Pre-solo
- First Solo
- Post Solo
- Checkride preparation
- After your license - Adding skills

Initial

Initial training consists of the basics in learning how to properly inspect the glider prior to flight and proper ground handling. You'll learn to control the aircraft: Checklists, takeoff, tow, turns, slow flight and stall recognition and recovery, slips, traffic patterns, and landing. You'll integrate your understanding of glider performance to pick the best airspeed to fly for different goals and conditions.

You'll learn to operate with the tow plane by determining a plan for the tow, to follow the towplane in the proper position, to fly relative to the towplane's wake, signals between the glider and towplane, slack in the tow rope, and handling emergencies during tow.

Your handling precision will improve during this phase to that you are able to land the glider exactly where you intend to.

Pre-Solo

This phase of training is to give you the skills to operate the glider without the assistance of an instructor.

As your proficiency increases, you'll learn to deal effectively with non-normal traffic patterns, emergency situations including:

- tow emergencies (rock off)
- low altitude rope breaks
- abbreviated traffic patterns
- inflight emergencies
- slack line
- spoiler failure
- and the need to land the glider someplace other than the airport.

Your training will include a session of spin training to stress the importance of safe operation and to practice recoveries. We conduct spin training not to be good at doing spins, but to be good at *not* doing spins!

Weather permitting, you'll also learn how to make use of various lift sources, especially thermal lift, but you may also get a chance to enjoy wave, convergence, and ridge lift.

You'll complete a Pre-Solo written test to be reviewed with your instructor.

First Solo

When your instructor is convinced you are ready to fly on your own, you'll be allowed to do so. Your first solo will be a trip around the traffic pattern (a circuit). Your instructor will stipulate the number of days you may exercise these privileges for, and the limitations of your solo authority. (e.g., wind, distance, etc).

Your solo flight also earns you your first soaring badge, the A badge.



The badges are issued on behalf of the Soaring Society of America (SSA). They are a member benefit and your membership in this fine organization is encouraged. See SSA.org

Post Solo

The goal of this phase of training is to increase your solo operating area and give you a chance to practice on your own. You'll learn to determine the minimum altitude for a safe return. You'll gain proficiency and confidence in your soaring abilities.

Here you will work on your thermalling skills to be able to gain altitude and remain aloft for longer periods of time. When you can remain aloft for 30-45 minutes after tow release, you'll earn your B badge.



After your first few hours of solo flight in the two-place trainer you may be checked out in the single place 1-26. This is a fun little glider with excellent thermalling characteristics.

As your skills improve and you can stay aloft for 60-75 minutes and demonstrate other knowledge and skills such as accuracy landings and knowledge of cross country procedures you'll earn your C badge.



Checkride Preparation

As your skills and knowledge progress, you'll soon meet the standards for the Private Pilot Certificate.

The Private Pilot Certificate will allow you to operate without the direct supervision of an instructor and to carry passengers (though not for compensation).

Your ground study should have progressed to that you can take the FAA Knowledge test. Your instructor will review your results and you'll begin to prepare for the Practical test day.

The practical test includes an oral session and a flight session.

The oral exam covers the various fundamentals, legal requirements, regulations, airspace, weather, aerodynamics, weight and balance, planning a cross-country flight, and other essential knowledge areas.

Your instructor will work with you to prepare for the flight portion by honing your skills on those maneuvers and procedures that must be demonstrated to the examiner.

After Your License - Adding Skills

Once you earn your certificate, the learning doesn't stop. Now you'll get to really apply your knowledge and skills as you step up to higher performance gliders, learn to go on longer flights beyond gliding distance from the home airport (cross country), aerobatics, wave and ridge soaring, launching from a ground winch, or other areas that interest you.

As your experience in the single seat gliders increases and you can demonstrate multiple flights of over two hours, spot landings, and pass a cross country test you'll earn your Bronze badge. This prepares you with the knowledge and skills to go cross country.



The Silver badge shows your achievements. You'll earn this badge by staying aloft for at least 5 hours, gaining 1000 meters, and completing a flight to at least 50 km (31 miles).



Other challenges and badges await you as you gain further skill and knowledge.