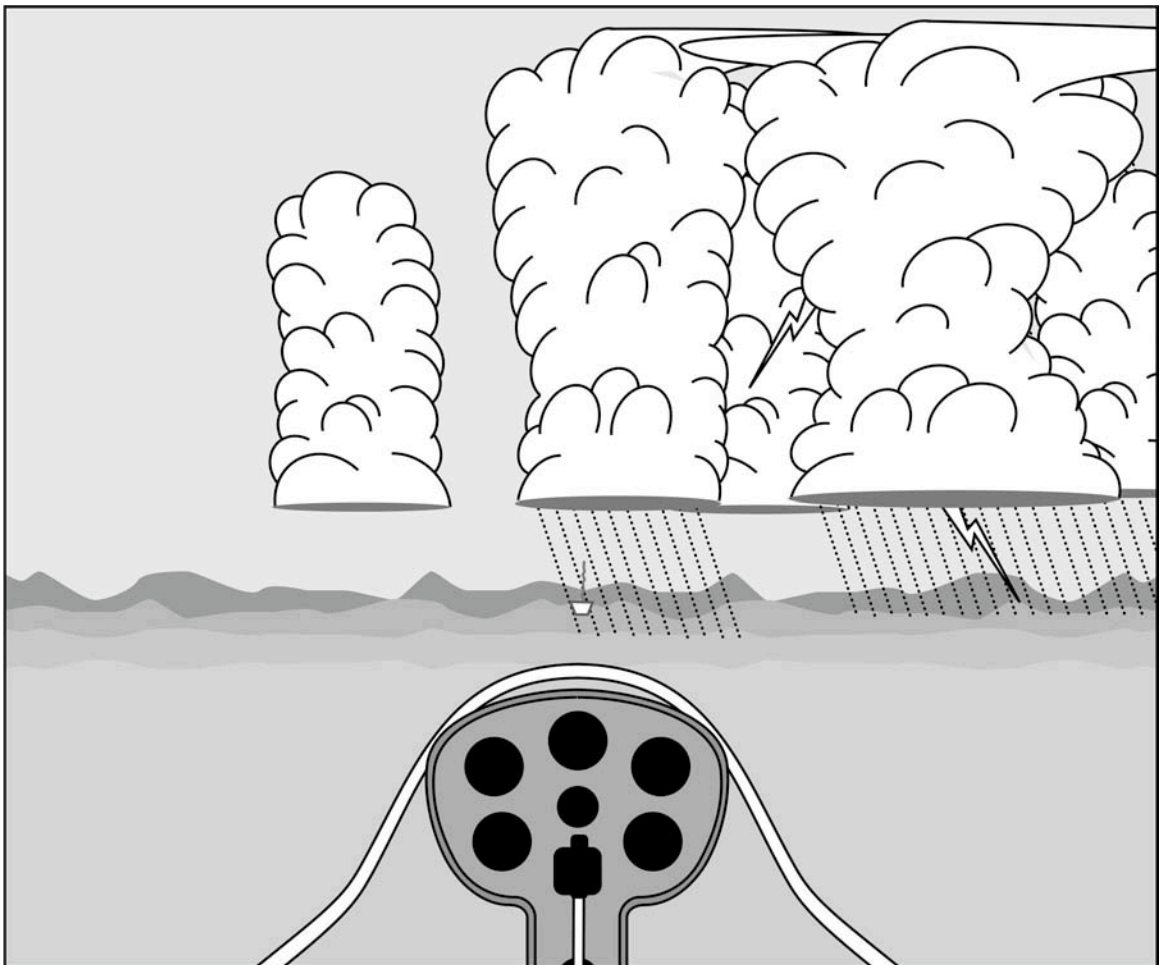


CHAPTER 9: AERONAUTICAL DECISION MAKING

The lessons in this chapter are intended to give you a chance to apply the knowledge you learned in Chapter 16: Aeronautical Decision Making, of the *Glider Pilot's Handbook of Aeronautical Knowledge*. They will also give your instructor the opportunity to evaluate your aeronautical decision making skills.

During your lessons, your instructor will constantly be evaluating your aeronautical decision making (ADM). Sometimes your instructor will set up a situation specifically to test your ADM process. Other times you will be evaluated on how you deal with situations that naturally arise in the course of your training.

Keep in mind that although there are "completion standards" listed for each lesson in this chapter, you should continually strive to improve your ADM skills.



9.1 Situational Awareness

Purpose

As a glider pilot, you need to be aware of both the factors currently affecting your flight and those that could affect your flight in the near or not so near future. By simply being aware of a developing situation, you can often take action to prevent a problem from turning dangerous. In this lesson, your instructor will help you to evaluate and improve your situational awareness.

Procedure

During your first flight lessons, you may find that performing basic tasks such as maintaining proper pitch attitude and keeping your wings level are all that you can concentrate on. As you become more comfortable and skilled at flying the glider, you will be able to develop increasing awareness of your environment.

Before you can solo, you must have enough situational awareness to keep yourself from getting into any situations requiring more skill than you possess. During the early part of your training, your instructor will be responsible for maintaining situational awareness; keeping an eye on traffic and operating the radio for you, as well as telling you what to do and when to do it given the situation at hand.

As you progress in your training, you must develop and exercise your own ability to perceive a situation, interpret it, and predict the effect it may have on your flight. Your situational awareness will need to expand to include the following areas:

- Flight planning
- Controlling the glider
- Glide slope management
- Traffic avoidance
- Communications
- Weather

You must be able to maintain situational awareness in all these areas simultaneously before you can fly without instructor supervision.

Keep in mind the interplay between good judgment and situational awareness. If you know that your situational awareness deteriorates significantly when a situation gets too complicated, you must use good judgment to avoid such a situation. This could mean, for instance, deciding not to fly when traffic around the airport is heavy, or only flying on days with benign weather.

Common Errors

- Failure to have a plan before starting your flight (tow height, tow location, maneuvers to practice, pattern entry altitude, etc.)
- Failure to notice when the glider is departing from the desired flight path, attitude, or airspeed
- Failure to return to the airport with sufficient altitude for a normal pattern
- Failure to notice traffic that may be a collision hazard
- Failure to acknowledge or respond to radio calls
- Failure to notice when weather conditions (wind, clouds, rain, etc.) have changed
- Failure to perceive a situation that could jeopardize the safety of your flight
- Failure to properly interpret information perceived
- Failure to predict the impact of a situation on your flight

Completion Standard

This lesson is complete when you have developed and can consistently maintain sufficient situational awareness to simultaneously control the glider, monitor traffic, communicate, and evaluate the weather.

9.2 Judgment

Purpose

In a sport like soaring, the consequences of a poor decision can be harsh. In this lesson, your instructor will help you to develop and evaluate your ability to make good decisions.

Procedure

You and your instructor will discuss some personal limits. For example, how low are you willing to try to thermal before committing to landing? How much of a safety factor will you use in your glide slope management calculations? What is the strongest crosswind that you will fly in? What is the lowest visibility that you will fly in? When flying cross-country, will you fly airport to airport, or is an off-field landing an acceptable alternative?

In the course of your training, your instructor will help you to evaluate some of your decisions. You will apply a systematic approach to decision making to discuss the benefit, hazards, risks, consequences, preventions, and precautions relating to your situation. You will consider the values that motivated your decision, and any obstacles or attitudes that may have clouded your judgment. Your instructor will also discuss strategies for solidifying your values and improving your judgment.

Keep an open mind during these discussions. While experience pilots may seem to you to be overly conservative, they have developed this attitude by observing, either personally or through the experience of others, the severe consequences of poor judgment.

Common Errors

- Unduly inflating the benefit of a decision
- Lack of knowledge of the hazards associated with a decision
- Underestimating the risks involved with a decision
- Lack of knowledge, or underestimating, the consequences resulting from a decision
- Getting into a situation where the consequences of previous bad decisions (dehydration, fatigue, stress, hypoxia) hinder your ability to make good decisions
- Failure to use a systematic decision making process
- Failure to plan ahead, and as a result having to make unnecessarily rushed decisions

Completion Standard

This lesson is complete when you are able to use a systematic decision making process to reach appropriate decisions based on your personal values.