



**Federal Aviation
Administration**

Proficiency and the Private Pilot



Introduction

“**Proficiency**” is defined as the state of art of being proficient; performing in a given art, skill, or branch of learning with expert correctness; adept, skillful.

That’s what the word “proficiency” means to Mr. Webster. What does it mean to you?

Staying Proficient

Preparing for Proficiency

Proficiency gets a lot of attention in the military environment. You’ll hear it discussed in the squadrons, at flying safety meetings, at the alert facility, and, of course, at the club. Basically, the discussion boils down to the fact that with the flying hours each of us are allotted each month, it is a real challenge to stay proficient, or skillful, in our flying machines.

The military realizes this challenge and, through major command, wing, and squadron orders, specifies what is necessary to maintain proficiency. There are currency items, and each must be accomplished over a period of time. By accomplishing our command-directed events and the wing-directed events, we attempt to maintain a level of proficiency. The completion of these events is documented electronically, and we can conveniently monitor our requirements at any time.

Where does this leave our friend, the private pilot? Proficiency is much more individual and personal in the general aviation community. The private pilot is master of his own destiny there. The Federal Aviation Administration (FAA) has established requirements for takeoff and landing, but these requirements are minimal. Perhaps the coldest hard fact of all in the private pilot world is that proficiency can be linked directly to your dollars. With fuel and maintenance costs continuing their upward spiral, the cost of general aviation flying grows higher and higher. Dollars are something we seem to have less of these days, and many necessities compete for those dollars. That means much less is left over for luxuries such as private flying.

Does the private aviator really need to fly as much to maintain proficiency? General aviation airplanes are far simpler than the Air Force’s complex bomber, fighter, and transport aircraft. As simple as general aviation aircraft may be, however, it would be naive for any of us to believe that an airplane can’t kill you. It definitely can, and it does, as accident statistics for general aviation operation point out each year.

So, what are general aviators to do? You are faced with limited funds and, in many areas of the country, limited good weather in which to fly.

Flying Smarter

What you must do is to fly smarter. You can do several things to make the most out of the time you fly. I am convinced, after reviewing several reports on general aviation accidents, that you can ensure your flight safety by improving your proficiency. I have assembled some tasks that you can do for your review. This list is by no means complete; feel free to expand it as you see fit.

First, there is the aircraft **owner’s manual**, which, according to federal regulations, must be on board the aircraft for flight. You can purchase or borrow one of these handy encyclopedias from your local flight school. It can be a great investment, especially if you fly one particular aircraft most of the time.

Inside the owner's manual, you will find all sorts of good information about the aircraft. An important section to read more than a few times is the one on **landing irregularities**. Information on **crosswind landings** may help you get out of a tight situation and back on the ground safely. Detailed information on flight maneuvers can be obtained from special training manuals, also available at the flight school.

Further on, there will be a section on the **stall characteristics** of the aircraft. This section will include **stall speed** for various aircraft configurations and angles of bank. Notice particularly the configurations most used when you fly traffic patterns and approach to landings. It is a good idea to commit the speeds (maybe two or three at most) to memory. If you do not have a good memory for these kinds of details, write the speeds down on a note card so you can have a ready reference when you fly. You can review the speeds just before you enter the traffic area. Stalling can be extremely hazardous at the low altitudes of the traffic pattern and can place you in a situation from which you cannot recover before hitting the ground.

You should read and thoroughly understand the chapter on **emergency** procedures and operating limitations of the aircraft. These are items that the aircraft manufacturer has decided are important enough to warrant your special attention. The manufacturer has thoroughly tested the aircraft and its capabilities before it was delivered. The procedures are designed to help you safely recover the aircraft when it performs less than advertised.

I have attempted to highlight some of the more important things to review, but don't stop here. The owner's manual can really be your best friend. It gives you the freedom to ponder the manufacturer's recommendations while you are safe and sound on the ground. If questions arise, it is much better that they arise on the ground than in the air.

Proficiency and Your Logbook

So you have read the owner's manual, and your confidence is overflowing. You now know things you never knew before, and you can't wait to get in the seat and take off. But take a few minutes to further analyze your proficiency. As I said before, proficiency is personal; it is an individual thing.

Get out your logbook. When was the last time you flew? What maneuvers did you accomplish? Are you embarking on a journey with passengers? There is nothing worse than not being in complete command of every situation when you have an audience watching. If it has been awhile since you last flew, you might consider a flight with an instructor. Nothing major—maybe just a few trips around the pattern—but it can be well worth it. The instructor will ensure that you are flying “by the book,” and, if you have developed some bad habits, he or she will demonstrate the right way to do things. That is tough to do solo. Again, improving your proficiency is an investment in your future, and you know that you are worth it.

Proficiency Flying

Practice

Maybe an instructor flight isn't necessary, and you decide that a solo flight is more appropriate. Instead of just droning around doing air reconnaissance, take a little time to practice a few stalls here, a steep turn there. You will be surprised at how little time it takes. When you come back to the traffic pattern for landing, practice those short and soft field patterns and landings instead. Try to get in some crosswind practice. Maybe there are some airfields in your local area where a crosswind prevails. This practice will be beneficial when that cold front moves a little faster than you thought and the winds kick up. It is also great practice for going cross country to a strange field when you are not exactly familiar with the surroundings or wind patterns.

Cross-country flying is a “whole other ball game.” This type of flying introduces more variables that can go wrong, and you must be prepared.

Preflight planning is the best method of preparation. The longer it has been since you flew cross country, the more preparation you need to do. Make sure that you know everything there is to know about your airplane, the route of flight, and the en route weather.

Weather

Weather is an important factor. It is the primary cause of many general aviation accidents, unfortunate events that would have been preventable if the pilot had just turned around and returned home. Instead, “pressonitis” caught him. Many times, the pilot didn’t have the instrument rating to fly in weather, but continued anyway.

Clouds make it tough to see mountains and other obstructions. They also contribute to carburetor icing and reduced aircraft performance. Some weather phenomena are always in season, so take a good hard look at the weather while you are still on the ground. Consider alternative routes of flight, or delay the trip a day or two until the weather gets better.

In addition, consider the atmospheric conditions of your field of intended landing. What is the field pressure altitude? If you are retreating to the mountains (that is, high altitude) for the weekend, a high density altitude can drastically reduce your aircraft performance. If not accomplished properly, takeoff and subsequent climb out of ground effect may be impossible.

Are you up to speed on leaning the engine before takeoff, if required? This procedure may be necessary for successful takeoff. If you are not up to speed, a certificated flight instructor (CFI) at your home airport can review the procedure on the ground with you before your departure for a cross-country flight. Don’t be afraid of asking the “dumb” questions, especially if knowing the answers could mean the difference between life and death.

Also, the winds can do interesting things in high altitude areas—from creating a very turbulent environment on final to gusty crosswinds in the flare. You must be prepared for all of them. If it has been a while since you flew in a similar environment, then it is time to rethink your plans. Postpone the trip until fair weather prevails. Next time the winds kick up at your home ‘drome, call your friendly CFI and get some good crosswind experience. You will find it to be a great confidence maneuver.

Survival

Pack a survival kit in case you have an unexpected forced landing. The items that you choose to include are up to you, but it is a good idea to include water, something energy-producing to eat and, most importantly, some type of first aid. Once again, this practice is a great investment. I do carry a survival kit with me whether I drive or fly, and the best thing I can say is that I have not yet had to use it.

Flight Safety

So you’re ready to go. You have checked, double-checked, and memorized the owner’s manual and other books. You are going to “slip those surly bonds.”

Watch for Traffic

One more planning factor to remember: know where the major traffic congestion will occur (that is, other airport traffic patterns, airways, navigation aids, and so on). It is great to know all that we have discussed, but it can mean nothing if you get too close to some other aviating comrade. Call it clearing, see-and-avoid, whatever; just make sure you do it.

Be especially courteous while in the traffic pattern at nontowered or UNICOM fields. I made my base leg radio call, only to hear someone else call base immediately afterward. Knowing that I wasn't flying formation with anyone, my head began spinning faster than a barstool to find out where this person was. It seems that the individual was in more of a hurry than I was; he had been behind me on downwind, and had turned inside my base leg to beat me to the runway. This act was totally unnecessary, discourteous, and, most importantly, unsafe. It probably saved him all of 3 or 4 minutes.

Professionalism

You must decide what proficiency means to you. Remember, you are a pilot—a professional. You have a responsibility to your fellow aviators, your passengers, and yourself. In an era in which the dollar is a limiting factor in the decision to fly, I have shown you how to get the most out of the dollars you spend. Put them all together and you have a method for flying smarter, allowing you to fly safer. Give it a try.

Summing It Up

Staying proficient is a real challenge for most pilots. To retain your skills and stay current in the knowledge of your aircraft, you need time, money, and suitable weather.

Fly smarter and get the most out of the time you actually fly—and fly safely. In between flights, review the aircraft owner's manual frequently. Keep current on the following:

- Approved flight maneuvers—procedures for each make and model you fly.
- Emergency procedures.
- Crosswind limitations and procedures.
- Stall characteristics (that is, speeds, configuration, angle of bank, with or without flaps).
- Traffic pattern configurations and speeds.

Make (and use) a checklist for the following:

- Takeoff and climb speeds.
- Approach and landing speeds.
- Operating limitations.
- Emergency procedures.
- Density altitude performance.
- Weight and balance for aircraft loading.

Note: Participating in the Wings—Pilot Proficiency Program on FAASafety.gov is an excellent way to stay proficient. The program is designed to help each pilot construct an educational curriculum suitable for his or her unique flight requirements.

About This Series

The purpose of this series of Federal Aviation Administration (FAA) safety publications is to provide the aviation community with safety information that is informative, handy, and easy to review. Many of the publications in this series summarize material published in various FAA advisory circulars, handbooks, other publications, and audiovisual products developed by the FAA and used by the FAA Safety Team (FAASafetyTeam) for educational purposes.

Some of the ideas and materials in this series were developed by the aviation industry. The FAASafetyTeam acknowledges the support of the aviation industry and its various trade and membership groups in the production of this series.

Comments regarding these publications should be e-mailed to ProductManager@FAASafety.gov.

Additional copies of this publication may be downloaded or printed at <http://FAASafety.gov>.

