General Aviation

Joint Steering Committee

Safety Enhancement Topic



Pilot Proficiency Training

A pilot can maintain and improve performance by gaining familiarity with and obtaining proficiency training in each of the precursors, or contributing factors, to loss of control accidents.

GA Accident Precursors

There are five principle reasons why loss of control accidents occur in general aviation (GA). Let's take a quick look at each of these precursors, or contributing factors, to loss of control:

- 1. **Disorientation** can occur when continuing a VFR flight (intentionally or inadvertently) into instrument meteorological conditions (IMC). More than 90 percent of GA accidents that occur in this phase of flight are fatal. Advancements in pilot training and aircraft equipment have reduced the numbers of continued VFR into IMC accidents, but accidents do still occur.
- 2. Sometimes accidents occur when there is a **distraction** by something on the ground or in the airplane. The term "moose stall" is familiar to Alaskan pilots, and more than a few Alaskan aviators have lost control while maneuvering for a better view of a moose on the ground. Low altitude maneuvering for aerial photography is another activity that generates opportunities for loss of control due to distraction.
- 3. An **inappropriate response to an emergency event** or "startle response" can delay or inhibit the pilot's reaction to hazards that occur

suddenly. This includes many pilots who, while maneuvering to return to the airport, lost control of their aircraft following an engine failure on takeoff or climb-out.

- 4. Rusty or the **lack of aircraft handling skills** has contributed to loss of control, particularly in crosswind operations.
- 5. **Inadequate risk management** has led many pilots into situations where they lacked the skill to cope with the hazard.



Manage Your Training Environment

Most of us have a favorite destination for that "hundred-dollar hamburger." We've been there before, the route is familiar, and we often bring the family along. That's not the ideal proficiency flight though. Proficiency flying should involve less frequently practiced evolutions such as stalls, slow flight, ground reference maneuvers, takeoffs and landings, and instrument flying.

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While it's good to practice at typical mission weights, passengers may not enjoy the experience and are not usually good at critiquing performance or offering useful suggestions for improvement. For that, you need a coach.

Solo proficiency flying is useful, but there's a way to get much more bang for your proficiency buck and that's to hire a coach. Every profession relies on coaching to keep practitioners sharp. All flight instructors are trained in performance evaluation and critique, and most make great coaches. You'll want to look for a coach who's an expert in the airplane you'll be flying and familiar with the flight environment. For best results, you want a keen observer and teacher who will push you to excellence in flying.

Together, you and your flight instructor can develop your pilot performance baseline so you can use it for flight planning.

Build a Pilot Performance Baseline

In order to establish personal minimums, you need to have a baseline — think of it as your personal, documented, demonstration of performance.

Document your performance at least once a year with an instructor. Pick a day when you can experience actual cross-wind conditions in the airplane you usually fly and loaded to your typical mission weight. Select an airfield that's typical for the missions you fly. If you're planning trips to a short, obstructed runway, try to find something similar on which to train. Gather information about the destination airfield from pilots who've flown there, and share that information with your instructor to help them construct realistic scenarios for you to fly.

Expand Your Horizons

Pilots usually think of proficiency training in terms of their usual aviation operations, but if you are willing to expand your horizons, there are hosts of options to make proficiency flying more interesting. Twin engine turbine or instrument training can boost capability and confidence in cross country operations. Seaplane and tailwheel training are particularly satisfying for those who learned in nose wheel airplanes.

If you don't take on the challenges of another rating or airframe, training in new operational environments builds confidence too. If you learned to fly at a small country airport, you're probably very comfortable in a non-towered environment. How about a trip to a major metropolitan airport with your flight coach? The traffic and rapid pace of ATC communications can be daunting at first, but mastering the environment can be very satisfying. Likewise, big city pilots who are comfortable with busy, towered operations can be overwhelmed when operating at non-towered or backcountry airstrips. Backcountry transition training can acquaint you with the nuances of rural environments and ensure your wilderness flying can be done safely.

Get Your WINGS

FAA's **WINGS** Pilot Proficiency Program is an excellent way to document your training. Your training record is retained online and always available to you and to your flight instructor.



The **WINGS** knowledge and flight activities are designed to address the common GA accident precursors, and your flight activities can be further customized to fit your operations and your experience. There are hundreds of **WINGS** seminars, webinars, and online course available each year.

Go to **FAASafety.gov** to register for an account today! Complete any phase of **WINGS** to satisfy the requirement for a flight review.

Only Perfect Practice Makes Perfect

There's nothing like the feeling you get when you know you're playing your A-game, and in order to do that you need good coaching. Fly regularly with an instructor who will challenge you to review what you know, help you explore new horizons, and encourage you to do your best.

