

FLYING LESSONS for December 9, 2010

suggested by this week's aircraft mishap reports

FLYING LESSONS uses the past week's mishap reports to consider what *might* have contributed to accidents, so you can make better decisions if you face similar circumstances. In almost all cases design characteristics of a specific make and model airplane have little direct bearing on the possible causes of aircraft accidents, so apply these *FLYING LESSONS* to any airplane you fly. Verify all technical information before applying it to your aircraft or operation, with manufacturers' data and recommendations taking precedence. You are pilot in command, and are ultimately responsible for the decisions you make.

If you wish to receive the free, expanded *FLYING LESSONS* report each week, email "subscribe" to mastery.flight.training@cox.net.

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This week's lessons:

Taking off should always include a plan to land right away. Any number of situations—weather, airplane systems, an open door or window, the need to return for something forgotten on the ground—can cause you to at least consider returning to the departure airport, or recovering at another airport nearby.

Your departure alternate must have weather adequate for landing, VFR or IFR as applicable for your ratings, currency, and the certification of the aircraft you're in. Sometimes the departure alternate may not be the airport you left, but another one close by.

For example, for several years I flew from an airport in a hilly area that was served only by nonprecision approaches with fairly high minimums because of terrain. A tower-controlled airport served by an ILS with a field elevation several hundred feet lower than my home airport was less than 20 miles away. Any takeoff issue (other than forgetting something in the FBO) could be resolved by landing at the nearby airport. In fact, since I could be on the ILS as quickly as I could have intercepted the approach to come back home, I felt comfortable departing when conditions at the home 'drome were below instrument minimums...as long as weather was above minimums for the nearby ILS.

More importantly, you need to be ready for the return before you ever take off. Review the runway alignment, wind and local terrain. Have the approach chart out and briefed if conditions are Instrument Meteorological Conditions (IMC). Load the approach navigation and communication frequencies into the back-ups to be ready to activate at the push of a button. Assume you'll be transitioning directly to the approach and landing after takeoff, so you don't have to add orientation and approach set-up to any high-workload scenario that causes you to exercise your departure alternate. Continue en route only if conditions are right.

It's especially important to be ready to return if you're taking off into dark night and/or marginal weather conditions. If you're flying VFR and IMC is possible, or if you're IFR and hazards like ice may occur, it's vital to be fully briefed and prepared for your takeoff alternate.

U.S. Part 91 rules give us the option of "taking a look" when conditions are poor. You may *think* flight visibility and cloud clearance will permit a Marginal VFR trip, or you may decide to fly an instrument approach even if reported weather is below minimums. With a good plan and by adhering to published altitudes and procedures, taking a look can be safe...as long as you know how, and when, to call off the attempt and aim for improving conditions.

It's the pilot who continues on the *hope* of improvement, not absolute knowledge, or who does not have a plan ready if conditions are worse than needed, that gets into places from which there may be no safe way out.

In a worst-case scenario don't hesitate to bust a rule to keep yourself (and your passengers) safe. Find yourself in IMC ringed in by clouds or terrain? Put the airplane in a climb to get to VFR conditions. Wedged beneath a ring of controlled airspace, or in a closing corridor between the surface and Class B? If you have to do it to stay alive, intentionally bust the clouds or airspace, then immediately contact controllers, declare your emergency, confess your sins, and accept whatever consequences afterward. Any regulatory repercussions are far preferable to the alternative.

Comments? Questions? Tell us what you think at mastery.flight.training@cox.net.

Thanks for supporting the delivery of *FLYING LESSONS* with a donation at www.mastery-flight-training.com. **Thank you!**

Debrief: Readers write about recent *FLYING LESSONS*:

Reader Alan Kellum writes about last week's guest editorial on a Piper Seminole fuel starvation event:

Two of the occupants (brothers) lived a few miles from my residence. The local newspaper (*The Memphis Commercial Appeal*) carried the story about the crash and the tragic deaths of the four occupants. Needless to say, the loss of these young men moved the community to share in the family's loss.

As a pilot for 18 years, and the owner of a Piper Lance, I too, was angered about the report that the fuel selector switch was apparently in a position that prohibited the proper flow of fuel to the left engine. The Lance's fuel selector switch, mounted on the floor under the control panel between the two front seats, can easily be moved by one's foot, if not careful. I was introduced to this possible situation with my first plane, a Cherokee Six.

Having carelessly kicked the selector handle myself, I always check the switch during my final check before taking the active runway. I am well aware that complacency in the cockpit can ruin your day.

As an older pilot (63), I always enjoy taking my "baby" up for a ride. However, as much as I am familiar with my plane, I always use my checklists in all phases of my flights. I had excellent instructors over the years and owe my cautious approach to flying to them.

I hold Airplane Single Engine Land, and Sea, and Airplane Multi-engine Land, with Instrument Airplane privileges. I pursued the ratings to make me a "better" pilot. Plus, I hope to become an instructor, someday. I don't get to fly as much as I used to, due to the high costs. I have always subscribed to publications such as AOPA's *Pilot*, EAA's *Sport Aviation*, *IFR* and *IFR Refresher*, along with on-line reads. I enjoy your *FLYING LESSONS* and look forward to each edition.

Dianne White, *FLYING LESSONS* reader and editor of [Twin and Turbine](http://www.twinandturbine.com) magazine, continues the discussion of slips in high-wing Cessnas:

I enjoy your *FLYING LESSONS* email each week. I always learn something. I was intrigued by the conversations on slips. I was taught by a WWII instructor who felt slips were an essential part of a pilot's skill set. In fact, up until solo, he didn't let me touch the flaps in my 172...made me use slips for speed/altitude control on final.

Anyway, when I bought the turbo Skylane [182], Kirby Ortega from Cessna took me up and demonstrated a full-flap "pitch pulsing." I thought it felt more like a wild bucking Mustang! Not fun! As a result, I don't slip the Skylane, but I do our 172.

See www.twinandturbine.com/.

Interesting, Dianne. Shortly after earning my Private certificate I too had an instructor who had taught in WWII. He taught me a lot about slips, which I often had to do in the no-flap Cessna 120 I owned at the time. As you know, to this day slips are a required Task item on the FAA Private Pilot practical test.

I received a couple of nice notes from readers this week. Mark Briggs wrote:

Your comments about the labor hours you spend in publishing this newsletter drive home a strong message about your dedication to aviation safety. I find *FLYING LESSONS* to be an excellent educational resource and appreciate the opportunity for learning which it presents. Please DO keep up the excellent work, and please know that your work brings real benefit to your readership. Safety is no accident but rather the result of a lot of hard work and dedication!

Thanks very much, Mark. I fully intend to keep *FLYING LESSONS* going, and appreciate your support. Mark submitted an item that will be a Question of the Week soon.

Bill Caton, an early [supporter](#) of *FLYING LESSONS*, attended the third annual [FLYING LESSONS Safety Day](#) last weekend in Denton, Texas, and sent this brief review:

That was an incredible seminar you taught yesterday. I feel we could have talked for hours about any one of the topics presented.

Thank you, Bill. Glad you enjoyed it.

See:

www.mastery-flight-training.com/be_a_master_pilot.html
www.mastery-flight-training.com/mftdto_syllabus_2010.pdf

From the AOPA Air Safety Institute:

Icing: Am I legal, am I safe?

Unless your particular airplane model and system has been certificated for flight in icing conditions, the answer is "No." Read more about ice protection systems in the Air Safety Institute's *Aircraft Deicing and Anti-icing Equipment Safety Advisor* and find out what the difference is between FAA-certificated systems for flight in icing conditions and so-called "non-hazard" systems. Do you know if your airplane is approved for flight in icing conditions?

[Download the advisor.](#)

See www.aopa.org/asf/publications/sa22.pdf.

Share safer skies. Forward *FLYING LESSONS* to a friend.

Fly safe, and have fun!

Thomas P. Turner, M.S. Aviation Safety, MCFI
2010 National FAA Safety Team Representative of the Year
2008 FAA Central Region CFI of the Year



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