

FLYING LESSONS for April 15, 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.

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

FLYING LESSONS is an independent product of MASTERY FLIGHT TRAINING, INC. www.mastery-flight.training.com

This week's lessons:

Just as the runway disappears behind you the engine burps...then quits completely. You don't have altitude—or time—to figure out what happened. What you do in the next very few seconds will determine whether you, and those who've placed their trust in you, will survive.

This is the so-called "impossible turn" scenario and, although mathematically possible with near-perfect pilot technique, it almost never works when a pilot is surprised with an engine failure just when he or she anticipates a successful flight.

See:

www.aopa.org/members/ftmag/article.cfm?article=7392
<http://jeremy.zawodny.com/flying/turnback.pdf>

Slang dictionaries define a "wus" as "a person afraid to act or not up to the task because of fear"—the opposite of a "macho" pilot. In almost all cases if you lose engine power on takeoff, "be a wus." Act out of *knowledge*, not fear--if you lose an engine on takeoff land straight or nearly straight ahead, with:

- Wings level,
- Under control, at the
- Slowest safe forward and vertical speed

OK, I mean the term as a humorous reminder. But if you are a "wus" (and you are wearing a shoulder harness) you have a far greater chance of survival than if you try to do better than almost everyone else has ever done and attempt to return to land on the reciprocal runway.

If it ever happens to you, will you try to return to the runway because of a "macho" attitude that you *think* you can make it? Or will you learn from others' experience and land on the best surface that's nearly straight ahead? Your choice need not be the last thing you do.

It's amazing how many pilots feel they've graduated from basic safety practices once they have passed a checkride. The basics are *basic*, however, because they have meaning that's derived from experience.

We check fuel sumps for a reason. Water in fuel tanks and lines will cause a power interruption that may happen at the worst possible time (is there a good time for an engine failure?).

Water can get into fuel tanks by many means: loose or leaking fuel caps, water pumped from airport fuel tanks or trucks, or condensation of moisture from air in less-than-full tanks. Airplanes stored in hangars aren't immune. There may be no obvious source of water in the tanks.

Some airplanes have many fuel sumps...and you must check them all, even after your checkride.

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

Supported by fliers like you: Is *FLYING LESSONS* valuable to you? I gladly donate my time and expertise, but hardware, software, hosting and other costs add up. \$5, \$10, the cost of an hour of dual instruction...any support is greatly appreciated. If you wish to donate to help *FLYING LESSONS* get even better you may do so through a secure [Paypal button](#) at www.mastery.flight.training.com.
Thank you!

Personal Aviation Safety Stand-down

The FAA Safety Team is holding a nationwide Safety Stand-down on Saturday, April 17th. Programs beamed live from the FAA at Sun-n-Fun add to live seminars at FSDOs and other locations across the country. Contact your local FAA office or FAAS Team representative or check www.faasafety.gov for the schedule in your area.

Thanks, everyone who came to hear *FLYING LESSONS: How Not to Crash Your Airplane* at Sun-n-Fun last Tuesday. I'll be giving the same presentation at AirVenture in Oshkosh this summer. See you there!

Question of the Week

The last couple of weeks we've been asking out mentoring less experienced pilots. This week let's turn it the other way—is there a task or topic on which you'd like to be mentored by a more experienced pilot?

Send your response to mftsurvey@cox.net.

Last week's question was:

Do you actively mentor another pilot or pilots toward being a safer pilot? How do you establish the mentorship arrangement?

One reader replied:

First, I enjoy your weekly newsletter immensely and recommend it to all my students. Keep up the great work.

As an active flight instructor I feel it is an obligation to not only mentor my students to be a safer pilot while they are seeking their certificate, but especially when the umbilical is cut and it's time they exercised their privileges as a newly minted certificated pilot. I remain in contact through emails and encourage them to call and fly together when we can. After my students acquire their private [pilot certificate] I always take them on a night flight to a local Class C airport to go start the process of going past what is required by the PTS [Practical Test Standards] and delve into the world of expanding horizons. I think the more they fly, the safer they will be...and opening new places to go and exciting destinations to try only gets the juices flowing more and more. Like smarter instructors than I have said for years, it is a license to learn and not just a license to fly.

As for establishing the mentorship relationship, I think it comes natural for the student/instructor—so it just kind of happens. I do think it takes more effort when they are “done” to maintain the arrangement. I try and communicate regularly and forward interesting emails and links to things I feel will be prudent for them to know (like your newsletter, for example). Communication is the key for sure, and I think as an instructor it is incumbent upon us to initiate and maintain the link. I know that two of my previous instructors from years gone by were instrumental in teaching me that concept not in the form of a lesson, but by doing it year after year. They kept an interest as I progressed and would meet up often to just talk about recent experiences and how their insight might be applicable. I have tried to carry on that tradition in hopes my students will one day have the same opportunity to share their experiences down the line.

Thanks, reader! Anyone else?

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



FLYING LESSONS is ©2010 Mastery Flight Training, Inc. Copyright holder provides permission for FLYING LESSONS to be posted on FAASafety.gov. For more information see www.mastery-flight-training.com, or contact mastery.flight.training@cox.net or your FAASafety representative.