



For much more on flying safely see www.thomaspturner.net.

©2008 Mastery Flight Training, Inc. All rights reserved

FLYING LESSONS for October 9, 2008

suggested by this week's mishap reports

FLYING LESSONS uses the past week's mishap reports as the jumping-off point 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.

Feel free to forward this message for the purpose of pilot education. *FLYING LESSONS* is also available in PDF through a link in the left column at www.thomaspturner.net.

FLYING LESSONS IS AN INDEPENDENT PRODUCT OF MASTERY FLIGHT TRAINING, INC.

This week's lessons:

Expect delays... I was providing instruction this past week, and was demonstrating a detailed preflight inspection to a trio of new airplane owners. While we scrutinized the landing gear of their retractable single I saw a Piper Aerostar on short final. All seemed normal, but while I was looking at the approach end of the runway my students were looking past me down the active; all three gasped as a "five-foot flame" shot from the Piper twin on touchdown. I immediately suspected a landing gear collapse and, sure enough, when I got up off the ramp and looked the Piper was at the far end of the runway, nose on the ground and tail high in the air.

Our takeoff was delayed no more than half an hour as ground crews quickly moved the stricken airplane from the metropolitan reliever airport's only runway. I wondered, however, about any pilots who might be planning an arrival at an airport where a preceding aircraft suffers a landing gear-related mishap (LGRM). The next pilot would have to be prepared to hold or head toward an alternate; if the hold time is long or the alternate is far away the pilot who plans arrival with FAA minimum fuel reserves could be in trouble fast as a result of the previous pilot's misfortune.

Always consider the possibility that the runway will be unexpectedly closed for any of several possible reasons when you arrive. If you plan to arrive with minimum legal fuel reserves know you must decide quickly when and how to get to another airport while fuel remains.

Instructing in Advanced Avionics Aircraft (formerly Technologically Advanced Aircraft, or TAAs) I'm constantly warning pilots not to program their GPS during taxi. Navigational programming is an attention-grabbing, head-down task, and frequently the button-distracted pilot waivers on the taxiway. I have no data (yet) to show it, but my feeling is that taxi mishaps and runway incursions may have significantly increased coincident with the widespread introduction of programmable GPS in airplanes.

The latest-generation MFDs (multi-function displays) with airport diagrams on a moving map are great for on-airport situational awareness, but should not be the focus of your attention while taxiing. Consider them to be like a street map in a busy city—you can look at them ahead of time to find where you are and make a plan to get to where you want to

be, but you can't safely drive the city streets while looking at the map. Similarly, orient yourself with the MFD airport map and perhaps scan it quickly as you go, but when you release the brakes your eyes need to be looking out of the cockpit.

Whether or not my feeling on GPS and taxi mishaps is correct, keep your eyes outside while taxiing. Program your navigational equipment and study a MFD moving map airport diagram only when at a complete stop, either on the ramp or in the run-up area. From there permit yourself only very brief scans of the avionics while slowly taxiing, and only then while on long, straight stretches of taxiway and with no other traffic in your vicinity.

Questions? Comments? Send me a note at mastery.flight.training@cox.net.

DVD from MFT!

You know you've heard it: there are those who have, and those who *will* have a gear up landing. Become one of **Those Who Won't** with this DVD detailing **10 tips for avoiding landing gear-related mishaps**. By Master CFI Thomas P. Turner, the 15-minute DVD is the result of over six years of studying why pilots make landing-gear mistakes. Great for airport, flying club and FAASTeam safety meetings. \$25 plus shipping and handling [online](#) or by calling 316-945-1700.

See <https://secure5.webfirst.com/ABS/Store/#ThoseWhoWont>

DEBRIEF—Reader comment on past *FLYING LESSONS*

Regarding my suggestion to practice the emergency landing gear extension procedure in your retractable gear airplane, reader Bob Beabout writes:

Manual landing gear extension on a Piper Comanche will require it to be put on jacks for the retraction. Maybe other airplanes too?? Be sure to be aware of consequences.

A little online research revealed this [April 2000 article](#) in the *Comanche Flyer*:

Emergency Gear Release Arm Problems
by David R. Clark

...Piper advises us that if we utilize the emergency gear extension system while in the air the proper technique is to land the airplane and put it up on jacks and re-attach the gear motor torque tube to the landing gear drive shaft. You can judge for yourself what you are comfortable with, but not being knowledgeable about this system may unnecessarily distract you at a time when other things demand your full attention. Don't try activating the emergency system in the air for practise unless you are really adept at doing this task on the ground with the plane on jacks....

In the last *FLYING LESSONS* I suggested a manual gear extension should be a part of every pilot checkout in a retractable gear airplane. Let me amend that recommendation slightly as follows:

Practicing the manual landing gear extension procedure to completion should be a requirement for initial checkout in any retractable gear airplane, unless there is an airplane type-specific reason not to actually extend the gear manually. Review the

checklist at least annually (if the procedure is not actually practiced) to ensure you are ready to complete the process under the stress of an actual failure.

Thank you, Mr. Beabout, for your advice.

See <http://www.theleftseat.net/article.html>

For piston Beech pilots

The October 9, 2008 Weekly Accident Update is now posted at www.thomaspturner.net, including these reports:

- An A36 crashed after its pilot reported a mechanical failure....
- A Staggerwing's landing gear collapsed on rollout....
- A Duchess crashed on landing under unknown circumstances....

For more information, commentary and analysis see the Beech Weekly Accident Update link at www.thomaspturner.net.

See www.thomaspturner.net/WAU_2008.htm

Fly safe, and have fun!

I welcome your comments and suggestions. Contact [Mastery Flight Training, Inc.](http://www.masteryflighttraining.com)

If someone has forwarded this message to you and you want to have *FLYING LESSONS* sent directly to you each week, [tell me](mailto:tom@mftraining.com).

If you received this message directly (as opposed to through a digest or chat room) and wish to be removed from the *FLYING LESSONS* list, [tell me](mailto:tom@mftraining.com).

©2008 Mastery Flight Training, Inc. All rights reserved.



Holder of an ATP certificate with instructor, CFII and MEI ratings, a Masters Degree in Aviation Safety, and **2008 FAA Central Region CFI of the Year**, Master CFI Thomas P. Turner ([resume](http://www.thomaspturner.net/TTweb.2008.0619/Resume.htm)) has been Lead Instructor for FlightSafety International's Bonanza pilot training program at the Beechcraft factory; production test pilot for engine modifications; aviation insurance underwriter; corporate pilot and safety expert; Captain in the United States Air Force; and contract course developer for Embry-Riddle Aeronautical University. He is now the Manager of Technical Services for the [American Bonanza Society](http://www.americanbonanzasociety.com). With over 3500 hours logged, including more than 2200 as an instructor, Tom writes, lectures and instructs extensively from his home at THE AIR CAPITAL--Wichita, Kansas.



See www.thomaspturner.net/TTweb.2008.0619/Resume.htm