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FLYING LESSONS for November 19, 2009

suggested by this week's 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.

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.



FLYING LESSONS is featured on the FAA's safety website!

This week's lessons:

One of the crashes pictured below resulted in serious head trauma to the pilot. The other ended with three people walking away without injury. Which of these engine failures do you think was the "worse" accident?

Since we asked, you probably guessed correctly that the Beech Baron mishap (bottom) more seriously injured the pilot. At last report the pilot was in serious condition with head trauma. The Beechcraft Debonair (left) was much more extensively damaged, but its pilot and passengers were not hurt.



What made the difference? We don't know definitively, but all bets are that the Debonair's occupants, at least the pilot and anyone in the other front seat, were wearing shoulder harnesses. It's virtually certain that the pilot of the Baron was not.



If the airplane you're flying has shoulder harnesses, wear them...it's required (under U.S. regulations) for all occupants for ground operations, takeoff and landing, and it's a great idea at all other times, when you probably won't have time to put it on if an engine quits.

If you own an airplane that does not have shoulder harnesses, strongly consider having them added if shoulder harnesses are approved for your airplane. Contact aircraft owners groups for sources if you don't know where to look for aftermarket harnesses.

If you rent or borrow and have no direct say in how the airplane is equipped, show these pictures to the airplane's owner and suggest that shoulder harnesses be installed.

Many underwriters in the insurance industry read *FLYING LESSONS*. I challenge you to discount premiums for airplanes equipped with shoulder harnesses if the pilot demonstrates, through records of recurrent training or other continuing education, he or she goes beyond the minimum requirements for flight currency—a good indicator the pilot will wear shoulder harnesses if they are available.

Collapse of retractable landing gear, either on takeoff or landing, is often the result of bent or broken pushrods or rod ends, or insufficient nose gear down tensions that do not adequately resist the push-back of surface friction against the nosewheel while on the runway.

History shows aircraft owners should not skimp on landing gear maintenance and rigging checks, including adherence to factory-recommended inspection and overhaul schedules for the critical *and non-redundant* landing gear system. Short-cuts here may contribute to a number of airplane-totalling failures...truly a false economy for owning and operating a complex airplane.

FLYING LESSONS is read on six continents (anyone downloading from Antarctica let me know). But the majority of readers live in the United States, and for U.S. readers Thanksgiving is but a week away. As you prepare for this family holiday remember holiday schedules add another layer of stress to your go/no-go decision-making...just when we're facing some of the worst flying weather of the year. Double-check the weather, runway conditions and fuel availability. Offset that extra stress with another layer of go/no-go evaluation before you take off, and additional vigilance en route. Fly safe, and have great Thanksgiving fun!

Questions? Comments? Email me at mastery.flight.training@cox.net

Coming soon! *FLYING LESSONS* comes to North Texas

Saturday, December 12th, Denton, TX: *FLYING LESSONS* is hosted by Aircraft Precision Maintenance, Inc. The day-long program includes:

- Running out of fuel: Lessons from three case studies
- Keep it on the runway: The lost art of directional control
- A pilot's guide to aviation insurance
- Those who won't: Avoiding gear up and gear-collapse mishaps
- What *really* happens in IMC

Check [here](#) for complete details. Contact Aircraft Precision Maintenance at 940-765-7975 or Wesley@amptx.com to enroll.

See www.thomaspturner.net/Denton%20Dec%202009.pdf

Watch for additional [FLYING LESSONS events](#) in 2010. Contact mastery.flight.training@cox.net if you'd like to arrange a presentation at your conference, FBO, safety meeting or flying club.

DEBRIEF: Readers comment on past *FLYING LESSONS*

Noted aviation author, instructor and *FLYING LESSONS* reader LeRoy Cook writes:

I read the reader's tale of his client's having an ELT go off inadvertently in turbulence. He thinks the newer installations have a panel-mounted switch so they can be turned "off" remotely, but I don't think the FAA allows this, only "arm" and "on". The old Piper

installations had an "off", but evidently the FAA thought this was placing too much power in the hands of the pilot and it's no longer done. It would sure make sense to be able to turn it off from the cockpit--bureaucracy rules!

Thanks, LeRoy.

It can happen to anyone

Gear up landings can happen to anyone, including professional aircrews, maybe even on a bad day including you. Perhaps this [Qantas Airways crew](#) should have seen the Mastery Flight Training DVD *Those Who Won't: Avoiding Gear Up and Gear Collapse Mishaps*. Luckily the 767 pilots discovered their omission and powered up in time.

See:

www.news.com.au/travel/story/0,28318,26303318-5014090,00.html
<https://secure5.webfirst.com/ABS/Store/#ThoseWhoWont>

Ice season, continued

The [November/December issue](#) of *FAA Aviation News* holds three good articles about cold-weather flying:

- "On Thin Ice"—A little frost won't hurt....
- "Ice Belongs in Drinks"—including the legal definition of "known icing"
- "When the Runway Becomes an Ice Rink"—when braking action is poor

There's your *FLYING LESSONS* homework assignment for the week.

See www.faa.gov/news/aviation_news/2009/media/NovDec2009.pdf.

QUESTION OF THE WEEK

November's Question of the Week #3

You're landing a retractable-gear airplane. As you complete the flare the airplane descends a couple feet lower than normal, and you hear the sound of metal scraping—you're landing gear up. Is powering up and going around the best course of action on noting you've made runway contact with the landing gear up? Or is it better to bite the bullet, chop the throttles and accept the gear-up? **What do you think?**

Win your choice of a Mastery Flight Training hat or the instructional DVD *Those Who Won't: Avoiding Gear Up and Gear Collapse Mishaps*. Answer this Question of the Week to be included in the random drawing for October. Copy and paste the question with your response to MFTsurvey@cox.net...then come back to read the rest of *FLYING LESSONS*.

Last week we asked:

What's your thunderstorm avoidance or encounter story?

No one responded. Perhaps all *FLYING LESSONS* readers stayed away from storms long enough to master thunderstorm avoidance. But if you have a war story, send it in!

What do you think? Let us know at mastery.flight.training@cox.net.

For piston Beech pilots

The November 19, 2009 Weekly Accident Update is now posted at www.thomaspturner.net, including these reports:

- A Duchess landed gear up, then went around...
- A Debonair's engine quit on a practice ILS...
- A Baron's nose gear collapsed on takeoff...
- A K35's gear collapsed on landing...
- A Baron 58 taxied into a light...
- An A36 fatally crashed on takeoff...
- A G35 landed gear up...

There is also an NTSB update on the A36 in-flight breakup while deviating around thunderstorms near San Antonio, Texas...

For more information, commentary and analysis see the Beech Weekly Accident Update link at www.thomaspturner.net/WAU_2009.htm.

Fly safe, and have fun!

Thomas P. Turner, M.S. Aviation Safety MCFI
2008 FAA Central Region Flight Instructor of the Year

I welcome your comments and suggestions. Contact mastery.flight.training@cox.net.

If someone has forwarded this message to you and you want to have *FLYING LESSONS* sent directly to you each week, [tell me](#). If you received this message directly (as opposed to through a digest or chat room) and you wish to stop receiving *FLYING LESSONS*, email "unsubscribe" to mastery.flight.training@cox.net.
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Holder of an ATP certificate with instructor, CFII and MEI ratings and a Masters Degree in Aviation Safety, and **2008 FAA Central Region CFI of the Year**, Master CFI Thomas P. Turner 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 now manages education and technical services for a 10,000-member pilots' organization. With over 3600 hours logged, including more than 2200 as an instructor, Tom writes, lectures and instructs extensively from his home at THE AIR CAPITAL--Wichita, Kansas.

