

# **FLYING LESSONS** for November 19, 2009

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](mailto:mastery.flight.training@cox.net).**

*FLYING LESSONS* is an independent product of MASTERY FLIGHT TRAINING, INC. [www.thomaspturner.net](http://www.thomaspturner.net)

## ***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](mailto:mastery.flight.training@cox.net)

**Coming soon!** **FLYING LESSONS** comes to North Texas

**Saturday, December 12<sup>th</sup>, 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](mailto:Wesley@amptx.com) to enroll.

See [www.thomaspturner.net/Denton%20Dec%202009.pdf](http://www.thomaspturner.net/Denton%20Dec%202009.pdf)

Watch for additional [FLYING LESSONS events](#) in 2010. Contact [mastery.flight.training@cox.net](mailto: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](http://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](http://www.faa.gov/news/aviation_news/2009/media/NovDec2009.pdf).

Do you have a question or comment? Email me at [mastery.flight.training@cox.net](mailto:mastery.flight.training@cox.net).

### ***Fly safe, and have fun!***

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



*FLYING LESSONS* is ©2009 Mastery Flight Training, Inc. Copyright holder provides permission for *FLYING LESSONS* to be posted on FAASafety.gov. For more information see [www.thomaspturner.net](http://www.thomaspturner.net), or contact [mastery.flight.training@cox.net](mailto:mastery.flight.training@cox.net) or your FAASafety representative.