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## **FLYING LESSONS for August 14, 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](http://www.thomaspturner.net).

### ***This week's lessons:***

**Many pilots rationalize their decisions** by saying they are willing to assume additional risk for themselves. The freedom of flight is the freedom to choose, and to accept the consequences of the choices we make. Some pilots justify bringing passengers along for the ride when conditions are poor by saying passengers knowingly accept that risk when they agree to fly...which may be true, *if* the pilot is completely honest with the passengers concerning the airplane, the environment, and his/her own level of skill and currency.

**More and more, however**, we're hearing of injuries and fatalities on the ground when an airplane crashes. Accepting the risk and dealing with the consequences becomes a public forum on the safety of local airports, and the wisdom of permitting "little airplanes" to fly overhead. Pilots no longer accept risk only for themselves, or their passengers.

**When you choose to fly** your actions may reflect on general aviation as a whole. Make your aircraft, environmental and personal currency decision not just on what risk you're willing to accept for yourself or those aboard your airplane, but what you're able to justify for those beneath your path of flight and others who fly. It's an awesome responsibility to pilot an airplane, and the safe outcome of each flight will set the tone for the future of personal flying as a whole.

**One such accident happened recently** near Portland, Oregon, when a Cessna 172 departed into foggy conditions only to crash into a house shortly after takeoff. Two occupants of the Cessna died in the crash, as did three people in the house. Three additional people in the burning house suffered "serious" injuries. According to the [NTSB preliminary report](#), the pilot attempted early-morning visual flight in a 300-foot overcast with 2.5 mile visibility in mist, making it only about a mile from the departure airport before crashing into a tree, then impacting a home where six vacationers slept. We don't know yet what other factors may have led to this horrific event, but AOPA Air Safety Foundation executive director (and *FLYING LESSONS* reader) Bruce Landsberg provides a [superb blog](#) on lessons we can learn from this specific mishap at this early date.

**The greater *FLYING LESSON***, however, has direct bearing not only on our lives, the lives of our passengers and the lives of those on the ground, but on the public's perception of the risk of permitting private aviation over populated areas, and the very future of general aviation. Once we could say, "I am willing to accept the risk." Then we began to muse, "How would I explain this in an NTSB hearing?" Now we need to consider "How will my decisions affect aviation decisions in the local city council, in the state legislature, and on Capitol Hill?"

## More of this week's *FLYING LESSONS*:

**There's a common correlation** between flight instruction and landing gear-related mishaps (LGRMs). For student and instructor alike, the risk of LGRMs is high during flight training.

**As safety manager for the flight**, the instructor should ensure the pilot maintains landing gear discipline.

**Mastery Flight Training's research** suggests pilots should avoid touch-and-goes and instead make all landings to a full stop, even during training, and that reconfiguration [retracting flaps, etc.] should be delayed until the airplane is slowed to taxi speed or even stopped, giving the pilot [and instructor] time to positively identify cockpit controls before moving them.

**Gear collapses from side loads** sometimes occur when a multiengine instructor "pulls an engine," or simulates engine failure on the runway for purposes of training. Instructor and student need to cover the proper Engine Failure on the Runway technique prior to practice in the airplane.

**The MEI is responsible** for ensuring all intentional on-runway "engine cuts" are done on wide runways with the airplane below 50%  $V_{MC}$  speed per recommendations in the FAA Practical Test Standards.

**For more on avoiding pilot error LGRMs** see the Mastery Flight Training DVD [\*Those Who Won't: Avoiding Gear Up and Gear Collapse Mishaps\*](#).

### **NEW 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>

**A common instrument approach error** that could lead to distraction is failure to load and arm an instrument approach into a GPS, with fixation on programming the GPS once the omission was discovered. If the pilot was employing an autopilot in the Approach mode, attempting to reprogram the GPS could provide unexpected autopilot responses to the interrupted signal.

**My upcoming (September 2008) Aviation Safety article** is titled "Forget the Checklist", and describes techniques for training to assure you do things right in those cases when there's no time to reference a checklist. But approach set-up is **not** one of those times.

**Arguably briefing and configuring for an instrument approach** carries the *most critical* need for referencing a printed checklist of any flight operation. Yet almost no aircraft manufacturer provides an Approach checklist in its flight manual. Just as well, because an Approach checklist would have to be highly customized to the individual airplane, updated as needed as pilot experience or panel upgrades change the flow of events.

**The challenge** is to create a printed Approach checklist specific to the airplane you fly, and more importantly, to **use it every time** you prepare for an instrument approach.

Questions? Comments? Send me a note at [mastery.flight.training@cox.net](mailto:mastery.flight.training@cox.net).

## DEBRIEF

Before Oshkosh I wrote as part of a *FLYING LESSON*:

Participating in charitable or military auxiliary flights does by itself not make for a better or more capable pilot. There should be no assumption of higher risk just because the flight is being conducted with a stable, ambulatory patient or done in conjunction with a paramilitary flying organization.

Tragically this week there has been another triple-fatality volunteer medical flight event—the third in as many months—although at this point there's no evidence of what brought down this third self-styled "mission".

Before this third event occurred FAA Central Region FAAS team manager (and *FLYING LESSONS* reader) Bobby Reed responded:

Morning Tom, Once again nice job!! Thanks for hitting on the first article about pilots who feel called to break the surly bonds when called into service for supporting medical transports. [Others in FAA have] told me about recent comments by pilots stating that "The mission's gotta go and you gotta get the mission done at all costs" kind of attitude by some pilots who are asked to support things like Angel Flight.

I remember being pressed to go with a failed fuel cross-feed valve in the Gulf because the nature of the "mission," and I refused to take the aircraft. Many other crews made the same decision causing that aircraft to sit for awhile before they sold some crew down the river to take it.

When things go wrong it is usually a chain of events and anytime we contribute to the chain by making a bad decision we become part of the causal factors titled the "human factor." The human factor is, as you know, the easiest for us as aviators to avoid and hardest for the accident investigator to uncover, wondering why they made the decision they did--especially if no one's around to talk to after the fact.

You can surely bet had we accepted that aircraft with a failed cross-feed the engine with the bad valve would have failed, or we had a fire and we would have been unable to shut off the fuel to it, ending in a potential catastrophic situation. Why we make poor decisions and think we won't have to ever deal with the results is unknown but a forgone conclusion. If you put your money in the slot once to many times you're going to get a pay out one day.

Human factors in aviation is like gambling, if you don't put in the coin you won't have to wonder if you will win or lose. Thanks again for your time and efforts!!

Thanks, Bobby, for your comments and valuable additions to *FLYING LESSONS*.

In a live briefing on the August 12th triple-fatality charitable medical flight a representative of NTSB said this and other fatal Angel Flight mishaps in recent weeks are focusing Federal attention on operations by charitable air transportation organizations.

But properly managed the risk during paramilitary and charitable flights *is* acceptable. Another reader whose name unfortunately escapes me told me at Oshkosh about a voluntary risk management checklist used by U.S. Coast Guard Auxiliary flight crews, one that mirrors active-duty USCG flight dispatch checklists. He said he would send me a copy and, if it is in the public domain, I'll post it on the [Mastery Flight Training](http://mastery.flight.training) website when it's received.

## NEW PISTON BEECHCRAFT REPORTS THIS WEEK

The August 14, 2008 Weekly Accident Update is now posted at [www.thomaspturner.net](http://www.thomaspturner.net), including these reports:

- An A36 delayed go-around and three died in the resulting crash....
- A C23 landed hard during an instructional flight....
- A Duchess' gear collapsed during a training flight....
- A J35's engine failed in cruise flight....
- An M35's nose gear collapsed on landing....
- A B55 crashed into the side of a mountain....
- Three died when a G35 pilot lost control during an instrument approach.... **See expanded commentary on this mishap in the [Beech Weekly Accident Update](#).**

**NTSB updates** are now available for the Baron 58 wing explosion of takeoff at Jackson, MS; the A23A fuel starvation at Sheboygan, WI; an A36 engine failure near Dwight, IL; the Staggerwing nose-over at Hubbard, OR; and the triple-fatality A36 takeoff crash at Tampa, FL.

**And NTSB final "Probable Cause" reports** have been posted for an E18S loss of control on landing at Guyon, KS; the S35 fuel exhaustion at Creola, AL; the A36 runway overrun at Ryegate, MT; and an F33A loss of directional control on landing at Groveland, CA.

For more information, commentary and analysis see the [Beech Weekly Accident Update](#) link at [www.thomaspturner.net](http://www.thomaspturner.net).

See [www.thomaspturner.net/WAU\\_2008.htm](http://www.thomaspturner.net/WAU_2008.htm)

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

I welcome your comments and suggestions. Contact [Mastery Flight Training, Inc.](#)

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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](#)) 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](#). 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.



