

FLYING LESSONS for May 14, 2009

suggested by this week's aircraft 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. Verify all technical information before applying it to your aircraft or operation, with manufacturers' data and recommendations taking precedence.

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This week's lessons:

Each flight is a unique chain of decisions and events. Any one link of the chain can contribute to a mishap, but it is also an opportunity to recognize the increase in risk and take corrective action. Take a look at [these events](#) that led a highly trained Air Force crew to the gear-up landing of a C-17 Globemaster III at Bagram Airfield, Afghanistan, last January:

- Upon nearing Bagram the crew learned the base's radar was inoperative, altering their typical approach pattern.
- The crew donned night-vision goggles to visually avoid mountainous terrain during the combat-arrival spiral descent.
- About three miles from landing the crew removed night-vision goggles, interrupting their normal landing habits.
- The crew made a "short final" radio call but received no response from Bagram. Lack of expected radio contact landing in a potentially hazardous combat zone undoubtedly diverted the crew's attention.
- A second "short final" call was answered—but the tower controller failed to make the Air Force-required radio call "Check wheels down" in the reply.
- Descending through 300 feet AGL, the pilot forgot to make the required "300 feet" callout.
- At this point the airplane was flying 42 mph faster than the correct short-final speed. USAF Standard Operating Procedure (SOP) calls for a go-around if noting this great a discrepancy at this point on the approach—but the crew did not follow SOP.
- Likely because of all the distractions to this point, the crew failed to process the "Before Landing" checklist.
- At this point the C-17's ground proximity warning system should have given an audible "too low: gear" alarm. It did not, however, because the crew had accidentally turned off the ground proximity system—perhaps as they removed their night-vision equipment?
- The massive transport landed gear up, sparking a fire and requiring a two-day recovery followed by repairs costing over \$19 million.

The specifics may not relate to the airplane you fly, but the *FLYING LESSON* certainly does. A close watch for possible distractions, adherence to standard procedures, and erring on the side of safety when discrepancies between "expected" and "actual" occur will go far to prevent accidents no matter what the kind of aircraft.

The aircrew could have avoided mishap by following checklist procedures, according to the Air Force. So can you.

See www.armytimes.com/news/2009/05/airforce_c17_bagram_050809/.

“He was a good pilot.” How many times have you read something like this recent quote in a news report about an aircraft accident?

[He] was an experienced pilot who had been flying since he was a teen.... I was very shocked to find out about the crash because he has a lot of experience. [He] had a very successful business and was very well liked and did it the right way."

How about these? “I knew this was going to happen.” “He thought the rules didn’t apply to him.” “He really couldn’t afford to maintain his airplane.” “He was an accident waiting to happen.”

No one thinks they’re about to take off on their last flight, or that his/her attitudes are conspiring to bring about their demise. Yet that’s exactly what happens. It’s easy to feel “it can’t happen” to you, especially if friends and family repeatedly comment on how good a pilot you are—when often friends and family have no objective basis for that opinion.

Despite our efforts we may never be able to eliminate the hazards of rules-flaunting pilots or the accidents waiting to happen. But their bad example warns us to watch out for these traits in ourselves. Strive to have a legitimate basis to consider yourself a superior pilot. Judge your skills not by bravado or overcoming undue risk, but by your ability to achieve maximum performance or economy within the limitations of the airplane you’re flying.

Ask yourself before each flight: Have you stacked risk against yourself, become an accident waiting to happen? Or have you evaluated risk to maximize the potential for completing the flight safely, as planned?

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

Coming this weekend: MFT presentations

- **Beechcraft Pilot Proficiency Program Columbus, OH:** “What Really Happens in IMC”, Friday, May 15 at 4 pm. Contact www.bppp.org to enroll.
- **Sporty’s Pilot Shop Fly-In, Batavia, OH:** “The First 60 Seconds: Takeoff, Cruise, Go-Around, Missed Approach and Emergencies.” Saturday, May 16 at 1:30 pm.

See www.sportys.com/flyin

QUESTIONS OF THE WEEK

One randomly selected reader in May will win his/her choice of a **Mastery Flight Training hat** or the MFT DVD **Those Who Won’t: 10 Tips for Avoiding Landing Gear Mishaps**. Your email address goes in the drawing once every week you respond to a question. All responses will remain confidential, but I will publish a review of the results. Like PIREPs, this works best if *everyone* participates. So take a moment to answer this week’s Question...then come back to read the rest of *FLYING LESSONS*.

May Question of the Week #2

Have you ever confronted a pilot because you thought he/she or the airplane was unsafe? What did you do, and what was the outcome? Copy and paste the question with your response to MFTsurvey@cox.net. Thanks, and good luck!

May Question of the Week #1 asked what you think should be included in all pilots' next Flight Review. Responses were limited but insightful. Here's what you said:

- It would have to be instrument flight. There is just not enough of it done during ab-initio [training] and it remains one of the biggest killers of pilots, even in a country like Australia where the climate is docile and the terrain non-threatening compared with the US, NZ or Europe. It is actually on the AFR [annual flight review] list for most schools, but so often doesn't happen because the school's foggles or IFR hood are being used elsewhere, or the pilot doesn't want to do it. It should be that an AFR stamp doesn't go in the logbook unless 30 minutes of solid IF [instrument flying] work is done (not just five minutes and a rate-one turn to the left).
- A go-around, preferably initiated from no more than 20 feet AGL.
- Preflight weather evaluation, particularly for those pilots flying aircraft capable of long cross country flights where the flights frequently cross large weather systems, fronts, etc.

Thanks to all who answered last week's Question!

DEBRIEF: Readers discuss past *FLYING LESSONS* reports

Reader Brad Haslett adds his expertise to the recent discussion of Minimum Equipment Lists (MELs):

A HUGE factor often overlooked in MEL usage is the Preamble - almost every MEL has one- and all Preambles say basically the same thing: "use your noggin". Here's a good example from real life; the DC10 has one circuit breaker that controls every map light, yoke light, and chart case light in the airplane. If that breaker is pulled and collared, can you go at night? The combinations and permutations of lighting on different airplanes are so variable that most MELs say something to the effect, "sufficient lighting at the Pilot's discretion...yada, yada, yada". In other words, you're a Big Boy, you figure it out for yourself. Let's take a hypothetical situation for a Baron: the right alternator is inop, the left vacuum pump is inop, the altitude hold on the A/P is inop, and the DME isn't working. Are you legal? Probably (whatever the MEL says) - since each is an unrelated system, the MEL may say you're "good-to-go" Is it smart? As a wise aviator once said, "it all depends".

Sometimes a MEL is a quick-and-dirty, "I'm legal and I'm outta here" tool. Other times, it is a "let's rethink how we're going to complete the mission safely" tool. But (and it is a big but) it can't cover every scenario and every circumstance. That's what the Preamble is for - the Preamble suggests you ignore the next 967 pages of the MEL and use common sense.

You'd be surprised how many experienced pilots don't even realize a Preamble to the MEL exists. Every airplane ever built since the Wright Flyer has had COM/SNS (common sense) system installed. When something doesn't work, follow the old trouble shooting method of, "SWITCH, BREAKER, BOOK (MEL, FAR's, MX manual). If the MEL says "GO", double-check that the COM/SNS (common sense) ON/OFF switch is engaged in the ON position.

Thanks, Brad!

Questions? Comments? Send your insights to mastery.flight.training@cox.net

Fly safe, and have fun!

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2008 FAA Central Region CFI of the Year



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