FLYING LESSONS for May 27, 2010

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.

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This week's lessons:

Go around…balked landing…wave-off…. Each is a term for abandoning a landing, powering up, and giving it another try or flying to another airport. Each term, however, makes it sound like a mistake was made, or the decision to abort was made *for* the pilot instead of *by* him or her.

Call it a "rejected landing" instead, rejected through a deliberate decision by the pilot-in-command. There's no blame, no implied failing in skill, only wise and timely recognition that the landing won't go as planned.

Why might you reject a landing? Most commonly it's likely the wind…a strong, gusty or crosswind. Another frequent reason is airspeed control—we know this is true, because so many landing mishaps involve running off the far end of the runway.

Landing long comes from approaching too high and/or too fast, both conditions that should be remedied before the airplane crosses the runway threshold. Airline and corporate flight operations—far safer, historically, than personal/general aviation—stress making a "stabilized approach" as a requirement for continuing to a landing. Find yourself "unstable" close the to ground and reject the landing, goes the doctrine.

Criteria for rejecting a landing in a piston or light turbine airplane might include any of these items:

- Not in landing configuration (landing gear and flaps) when passing the runway threshold
- Airspeed below reference speed (50-foot landing speed in many Pilot's Operating Handbooks) or more than 10 knots above reference speed within 500 feet of runway elevation.
- Rate of descent exceeds normal final approach descent rate within 500 feet of runway elevation.
- Failure to fully compensate for crosswind drift when passing the runway threshold.
- Touchdown will not occur within the first third of the runway or with less than a sufficient distance to land without using brakes (this latter criteria applies to very long runways and deliberately landing long on long runways).

If any one of these criteria occurs, reject the landing and set up for another approach, or divert to a different airport. No one expects a runway overrun until it's unavoidable. The trick is to avoid the unavoidable situation.

Comments? Questions? Tell us what you think at mastery.flight.training@cox.net.

Debrief: Readers write about recent *FLYING LESSONS*

Reader Pete Tracy writes:

> I noted the comment from the Asheville pilot where ATC brings him in downwind at 4000AGL. It seems to me that this is a very nice opportunity to ask for a contact approach. The pilot clearly has the runway in sight from 4000AGL. Ask for a contact approach and do whatever is reasonably required.

Thanks, Pete. First, let's look at the requirements of the contact approach:

- A contact approach is an instrument approach procedure, flown as part of an IFR clearance.
- ATC cannot suggest a contact approach—the pilot must ask for it.
- Flight conditions must be at least one mile visibility and the pilot must be reasonably assured he/she can descend from the minimum safe IFR altitude to the airport while remaining clear of clouds.
- The destination airport must have approved weather reporting, and report at least one mile visibility.
- The pilot is responsible for terrain avoidance while on the contact approach. ATC will still provide traffic separation between the contact approach airplane and IFR and special VFR aircraft.
- The pilot does not need to be able to see the airport, but must have ground features in sight that he/she knows will lead to the airport. Alternately, the pilot may report preceding traffic to the same airport in sight, and follow that aircraft until the airport is in sight.

Now, what are the advantages of a contact approach?

- The pilot may short-cut the instrument approach when conditions are not good enough to permit ATC to offer a visual approach.
- The pilot may maneuver as needed to lose altitude or slow down.
- The pilot may descend lower than IFR procedures permit when crossing terrain near the airport, reducing the need to dive toward a close-in airport.

Thanks, Pete.

Risky business

AOPA Foundation president (and *FLYING LESSONS* reader) Bruce Landsberg introduced a new pilot decision-making tool this week. The AOPA Air Safety Institute (AOPA-ASI) has published its "Flight Risk Evaluator." No, it has nothing to do with court appearances or jumping bail, it's all about making better go/no-go decisions. "Pilots make judgments about risk every time we fly," says Landsberg. "It's a pretty informal thing – just something we do automatically. But research has shown that there are real safety benefits to taking a more formal approach." The Evaluator

lets you consider personal minimums as well as check your decisions against the environment and legalities, then produces a list of risk considerations for your proposed flight. It's really pretty cool—take a look.

FYI, if the job titles and terms look just a little odd, it's because AOPA reorganized last week, merging the AOPA Foundation, the fund-raising arm for AOPA's regulatory and outreach, with the AOPA Air Safety Foundation, the pilot education organization. Former AOPA-ASF president Landsberg is now president of the combined AOPA Foundation, and "the crew formerly known as Air Safety Foundation," many of which read *FLYING LESSONS,* now comprise the AOPA Air Safety Institute (ASI). I spoke with Bruce last Tuesday before his Wichita Aero Club presentation, and he reports the consolidation is a good one that "makes sense," in part because it removes confusion about co-existence of an AOPA Foundation and an AOPA Air Safety Foundation. Here's to their good works, regardless of name.

See:
http://flash.aopa.org/asf/flightrisk
www.wichitaaeroclub.org

Check(list) it out

Do you routinely go through a final-items cockpit flow or checklist just before taking the runway for departure? If you think you could never forget anything, consider this report from AVweb about cases when professional flight crews attempted to take off without starting a regional jet's second engine. Fly enough and complacency can set in, no matter how experienced you are or even if you have another pilot helping. Develop, and use, a takeoff final-items check.

See www.avweb.com/avwebflash/news/StartEngineTakeoff_202585-1.html.

From our friends the Feds

The U.S. Federal Aviation Administration has published a Safety Alert for Operators (SAFO) on nighttime operations at non-towered airplanes, basically a reminder to look up the frequencies for and activate pilot-controlled lighting. It's a good, quick topic to include in a Flight Review or return to night currency. Read the SAFO.

A Special Airworthiness Information Bulletin (SAIB) reminds pilots to avoid placing loose objects on top of the glareshield if they'll come into contact with electrical wiring, to prevent a possible fire. The SAIB cites an electrical fire in an MU-2 turboprop after a portable GPS antenna contacted and shorted out a stripped windshield heat wire. It also reminds us that objects on the glareshield may cause incorrect magnetic compass indications should you need to manually reset a heading indicator or use the mag compass while flying partial panel. Here's the SAIB.

Are these advisories a little basic? Perhaps. But what about the new pilots among us? And can't we all use a little refresher? Simple, perhaps, but they could save a life.

See:
www.faa.gov/other_visit/aviation_industry/airline_operators/airline_safety/safo/all_safos/media/2010/SAFO10008.pdf
http://rgl.faa.gov/Regulatory_and_Guidance_Library/rgSAIB.nsf/(LookupSAIBs)/CE-10-35?OpenDocument

At least I know you're reading…Thanks to those of you who wrote last week to remind me it was Paul Harvey, not Lowell Thomas, who was famous for his "Rest of the Story" reports. And me such a fan! I apologize for my error.

Question of the Week

This week's question:

> **When's the last time you rejected a landing? What happened?** Tell us your story at mftsurvey@cox.net**.**

Last week's question was:

What's your best go/no-go decision-making story?

Here are your responses:

> It's so often that in this day and age there is no longer a go, no/go decision, but a GO/Continue/Deviate decision. Often weather dictates our decisions, and with the wealth of weather products out there it's easier to just launch and decide if we can continue, with rare exception. A lot of us have more weather information in the plane that the national weather service has for our flight, with [lightning detectors], radar and XM [weather uplinks]. The exceptions come with weather that is not good for take off or a situation that will dramatically change for the better, shortly... like a fast moving front coming through.
> In using this philosophy, I find perhaps one trip every two years that I just can't make, which isn't horrible. Now, I'm pretty conservative, so I reserve the right to delay or cancel if I'm tired or just don't feel like flying and don't count those.
>
> You know, it is hard to think of one. Now, sometimes I do think about how the flight would have gone if I had made the decision to go. BUT, this thought quickly goes away when I get home and see my wife and 2-year old son! Thank you very much for your articles Tom! They are always great reads!

And thank you!

Fly safe, and have fun!

Thomas P. Turner, M.S. Aviation Safety, MCFI
2010 National FAA Safety Team Representative of the Year
2008 FAA Central Region CFI of the Year
