



FLYING LESSONS for August 10, 2017

FLYING LESSONS uses recent 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 airplane have little direct bearing on the possible causes of aircraft accidents—but knowing how your airplane's systems respond can make the difference as a scenario unfolds. So apply these FLYING LESSONS to the specific airplane you fly. Verify all technical information before applying it to your aircraft or operation, with manufacturers' data and recommendations taking precedence. **You are pilot in command, and are ultimately responsible for the decisions you make.**

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This week's LESSONS:

The recent midnight near-landing of an Airbus A320 onto an airliner-crowded taxiway at San Francisco has created a lot of discussion. [The NTSB preliminary report](#) states:

On July 7, 2017, about 2356 Pacific daylight time, Air Canada flight 759, an Airbus A-320, C- FKCK, was cleared to land on runway 28R at San Francisco International Airport (SFO), San Francisco, California, but instead lined up on parallel taxiway C, which had four air carrier airplanes on it awaiting takeoff clearance (a Boeing 787 that was first in line followed by an Airbus A340, another Boeing 787, and a Boeing 737). The flight descended below 100 feet above the ground and initiated a go-around after overflying the first airplane on the taxiway. The flight was operating under 14 *Code of Federal Regulations* Part 129 as an international scheduled passenger flight from Toronto/Lester B. Pearson International Airport, (YYZ), Toronto, Canada. Night visual meteorological conditions prevailed at the time of the incident.

See <https://app.ntsb.gov/pdfgenerator/ReportGeneratorFile.ashx?EventID=20170709X81141&AKey=1&RTtype=Prelim&IType=IA>

AVWeb published [additional investigative details](#) about the event (emphasis added):

New flight recorder data says Air Canada flight 759...descended as low as 59 feet above ground level and the 55-foot tall 787 on Taxiway C before beginning to climb out on its go-around—coming potentially as close as four feet from a collision.... After prompting by one of the pilots of United Flight 1 (UA1), the first in line for takeoff on Taxiway C, who was well positioned to see that ACA759 was not headed toward a runway, the tower controller instructed ACA759 to go around. After advancing the thrust levers at 85 feet above ground level, the aircraft continued to sink to a minimum altitude of 59 feet, before overflying at least two more aircraft. Altitude figures in the NTSB report are likely based on the A320's radar altimeter, according to an A320 pilot who spoke with *AVweb* about the incident. The extent to which the accuracy of the radar altimeter may have been influenced by extremely close proximity to aircraft underneath has not yet been reported by the NTSB.

According to initial interviews with the flight crew, both pilots appear to have been confused by the absence of lighting on Runway 28L, which had been closed for construction. Its lights were turned off at the time of the incident, and a 20.5-foot wide flashing X had been placed near the threshold. The Air Canada pilots reporting believing that Runway 28R was actually 28L and they therefore believed that Taxiway C was Runway 28R. According to the NTSB, the pilots "did not recall seeing aircraft on Taxiway C but that *something did not look right* to them." At 0.7 miles from the runway, *the Airbus crew had asked the tower to confirm there were no aircraft on 28R* and that they were cleared to land. The NTSB only learned of the incident two days after the fact, at which point the cockpit voice recorder had been overwritten by subsequent flights.

See <https://www.avweb.com/eletter/archives/101/3762-full.html?ET=avweb:e3762:278475a:&st=email#229456>

There are many differences, but there are also several similarities between the San Francisco incident and the widely reported Harrison Ford event at Santa Ana, California earlier this year. In the Santa Ana event the pilot was cleared to land his Aviat Husky. When he aligned with what he thought was the runway he saw and asked tower controllers about a Boeing 737

that was in his glidepath. He nonetheless continued, reportedly clearing the Boeing by about 125 feet before landing on what was in fact a parallel taxiway, not the runway for which he had been cleared. The 737 was actually holding short of the active runway waiting for the Husky to land, and in that position was parked across the end of the parallel taxiway.

I used that incident as the jumping-off point for [FLYING LESSONS for February 16, 2017](#) and a discussion of [confirmation bias](#)...the human tendency to interpret observations and perceived facts in ways that confirm our preconceived notions.

See:

<http://www.mastery-flight-training.com/20170216-flying-lessons.pdf>

<https://www.psychologytoday.com/blog/science-choice/201504/what-is-confirmation-bias>

I think there's a simpler but perhaps even important *LESSON* from the Airbus (and the Husky) incidents. It really is a follow-up to [last week's LESSONS](#) on resolving inflight discrepancies:

- If you "have a bad feeling about this," if you see something that just "doesn't look right," check it out **now**, without delay.
- If you are on final approach within 500 feet of the ground and something about the runway environment, or its lights, or something on the surface isn't what you expect it to be, **go around now**. Get some altitude first, then sort out the problem.

See <http://www.mastery-flight-training.com/20170803-flying-lessons-2.pdf>

Both the San Francisco and Santa Ana events were mere seconds from becoming profound tragedies. People got lucky.

You don't have to know what's wrong, you just need to know *something's not right*. That's enough information for you to make a quick decision to go around and gain some altitude. That gives you time to resolve the discrepancy, overcome confirmation bias, and make sure things *are* right.

Comments? Questions? Let us learn from you, at mastery.flight.training@cox.net



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Debrief: Readers write about recent *FLYING LESSONS*:

A *LESSON* about the Before Takeoff (and Before Start) **CONTROLS: Free and Correct** check we (re)learned last April ("[A Terrible, Encouraging LESSON](#)") still elicits reader comments, both by email and by several people to me in person at Oshkosh. Reader Gary Holden writes:

I really liked your article on pre-flight. I see pilots talking to passengers while going through the motions of the pre-flight. It's hard to stress enough the importance of a thorough check before even getting in the airplane. I liked the idea of checking the controls for free and correct before starting the engine, I hadn't thought of that. My Dad taught me to box the controls doing the control check. I think that is also a good idea. One other thing I do and mention to flight review or students is to **smell during a pre-flight**. I raise the cowlings to check the oil and stick my head in there to see and smell the engine compartment. **You can smell burned oil, fuel or electrical problems**. If you do this you will become used to how your airplane smells

and be able to detect any difference which could lead you to finding a minor problem before it becomes a situation.

Excellent additional point, Gary. Thank you.

See <http://www.mastery-flight-training.com/20170427-flying-lessons.pdf>

Frequent Debriefing John Scherer, a former US Air Force C-5A pilot, continues last week's discussion about [discrepancies and SOPs](#) (Standard Operating Procedures):

Hi Tom, great to speak to you briefly at Oshkosh! Your article about the A320 Crew that left their gear down left me incredulous. When we fly our [Beech] Bonanza, with clean configuration, 23 inches and 2300 RPM, the indicated airspeed will be 170 mph every time. I wonder what those airline pilots thought when they set cruise power and got a much slower speed than usual. And what did they think when the airplane would only climb to 24,000 feet? **Basic stick and rudder skills include an awareness of what your airplane is telling you. Listen to it!** Your point on checklist discipline is also so important. Thanks for your great articles each week.

Thanks to you also, John. Sorry it's always so busy at Oshkosh that I don't have more time to talk with each person.

See <http://www.mastery-flight-training.com/20170803-flying-lessons-2.pdf>

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Best info that I receive about flight safety! - Brian P Conway

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Repairs complete

I had some website software issues the last couple of weeks that are now resolved. The pdf versions of *FLYING LESSONS* for [July 27th](#) and [August 3rd](#) are now available, here and (as usual) through links in the left column at www.mastery-flight-training.com. Fixing the problem also took time that delayed publication of this week's *LESSONS*, and prompted me to keep it short to get it out somewhere near on schedule. Thanks for your patience.

See:

<http://www.mastery-flight-training.com/20170727-flying-lessons.pdf>

<http://www.mastery-flight-training.com/20170803-flying-lessons-2.pdf>

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Thomas P. Turner, M.S. Aviation Safety
Flight Instructor Hall of Fame 2015 Inductee
2010 National FAA Safety Team Representative of the Year
2008 FAA Central Region CFI of the Year
Three-time Master CFI

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