



FLYING LESSONS for November 8, 2018

by **Thomas P. Turner**, Mastery Flight Training, Inc.
National Flight Instructor Hall of Fame inductee

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.**

FLYING LESSONS is an independent product of MASTERY FLIGHT TRAINING, INC. www.mastery-flight-training.com

Pursue ***Mastery of Flight***

This week’s LESSONS:

I’ve always been a stickler for taxiing directly on taxiway centerlines, and landing with the runway stripe (if there is one; I’ve flown from several grass runways) between the main wheels. For me it’s been a measure of professionalism, a matter of demonstrating I’m fully in command of the airplane with, as the old Practical Test Standards used to say, the “successful outcome” of my runway and taxiway operations “never seriously in doubt.”

When I became an instructor I began impressing this upon my students as well. It worked most of the time, but not always. It seems such a little thing, being on the centerline. It’s easy to say it’s not a big deal to be a little left or right of target, as long as nothing got bent. But staying centered is more professional, and one indicator of your entire approach to precision and discipline in flight.

I was tasked with flying an A36 Bonanza to a rural airport about 45 minutes from home. I was to meet a team of publicity folk who would extensively photograph the Bonanza’s panel for marketing their avionics. They chose the small, nontowered Gardner airport instead of the much larger, tower-controlled New Century airport nearer their office so they could work on the ramp unfettered by security, and so they could get very near the runway to photograph the airplane as I landed and took off as well.

I’m familiar with the area but had never flown into that particular airport. Looking at the charts I found the paved runway is 2900 feet (884 meters) long—short by modern standards, but easily doable to anyone reasonably proficient in an A36. Oddly for this part of the country, the runway runs east/west. Almost all runways in Kansas run north and south, more suited to the prevailing winds.



A closer look at Gardner, in the Chart Supplement (the fairly new name for the “green book” Airport/Facilities Directory), revealed other options: Runway 17/35, a 3237-foot (986 meter) grass runway—more aligned with the usual winds—and Runway 3/21, another grass runway only 1871 feet (570 meters) long with trees off one end and power lines off the other. Bonanzas operate well on grass and Runway 17/35 could work, but the shorter and obstacle-ridden Runway 3/21 is a little below my threshold of comfort despite (or more likely because of) my familiarity with flying the A36. Grass runways increase takeoff distance (the A36 *Pilot’s Operating Handbook* doesn’t

GARDNER MUNI (K34) 1 W UTC-6(-5DT) N38°48.42' W94°57.38'

KANSAS CITY

1049 B NOTAM FILE COU

L-10J, A

RWY 17-35: 3237X90 (TURF) LIRL 0.6% up S

RWY 17: Road.

RWY 35: Trees.

RWY 08-26: H2960X39 (ASPH) S-6 LIRL(NSTD)

RWY 08: P-line.

RWY 26: Thld dsplcd 255'. Tree.

RWY 03-21: 1871X80 (TURF)

RWY 03: Trees.

RWY 21: P-line.

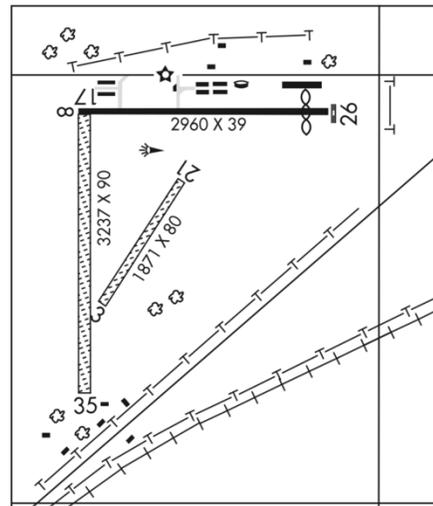
SERVICE: S7 **FUEL** 100LL, MOGAS **LGT** Rwy 08-26 NSTD LIRL, no rwy end lgts, no dsplcd thld lgts Rwy 26 and lgts placed 35' out from rwy edge at 240' spacings. LIRL Rwy 17-35 OTS indef.

AIRPORT REMARKS: Attended 1400-2300Z±. Fuel avbl 24 hrs with credit card. MOGAS: 87 octane unleaded auto gas. Glider and ultralight activity on and invof arpt. Rwy 17-35 ends marked with orange barrels. Major powerplant repairs only.

AIRPORT MANAGER: 913-829-4606

COMMUNICATIONS: CTAF/UNICOM 122.8

Ⓡ **KANSAS CITY APP/DEP CON** 118.9



tell us by how much), so in reality the slightly longer grass runway 17/35 presented no advantage over the slightly shorter, paved runway 8/26.

The first time we scheduled to meet the weather was IMC (instrument meteorological conditions). Gardner has no instrument approaches, and I don't play that "shoot the approach to a nearby airport, cancel IFR and scud-run to a nearby airport" game. I postponed the meeting. Our second attempt had clear skies, but it had rained heavily the day before, muddying up runway 17/35, and the wind was out of the north at 17 gusting to 25 knots. I don't play the "gusting well above demonstrated maximum crosswind component" game either. Again, I called a no-go. As much as we all wanted to get the photos done, they simply were not worth the risk.

Further, an even closer look at the Chart Supplement reveals an even more important fact: runway 8/26 is 2960 feet (902 meters) long, but it's only 39 feet (12 meters) wide. In an airplane with a 9-foot 7-inch (2.9 m) wheelbase (distance between the main wheels) and a 33-foot 6-inch (10.2 m) wingspan, that means if you are precisely on centerline there is only about 15 feet (4.6 m) of pavement on either side of the wheels. The runway is only 5.5 feet (1.7 m) wider than the Bonanza's wingspan, leaving only 2.75 feet (0.8 m) on either side of the wingtips (although of course the wings can extend a little over the grass safely as well).

The third time, as they say, was the charm. Skies were clear; surface winds were about 15 knots from the northeast, favoring runway 8 (runway 17/35 was NOTAM'd closed for mowing anyway). That's a roughly 11-knot crosswind component. Now, that's not unusual in Kansas, and most pilots who fly in this part of the world get a lot of crosswind practice. However, on this narrow a runway it only works if the pilot not only lands aligned with the runway, but also **touches down very close to the centerline and remains there** through the end of the landing roll.

"We don't rise to the level of our expectations, we fall to the level of our training." - Archilochus

My preliminary research shows that the majority of wind-related Loss of Directional Control on the Runway (LOC-R) mishaps happen when the crosswind component is less than 10 knots. Perhaps pilots get complacent when there is some but not a *lot* of crosswind, and don't feel they need to apply the control inputs necessary to maintain runway alignment.

Meanwhile, landing long and running off the end of the runway continues to be a common accident scenario as well. Glide path control, to a touchdown spot 1000 feet (about 300 m) from

the threshold or one-third the runway length, whichever is less, or if you prefer as suggested by the [Second Stripe Challenge](#), is important on any runway and vital on a short runway.

See <http://www.mastery-flight-training.com/secondstripechallenge.pdf>

This week's **LESSONS**:

- Check runway *width* as well as length when choosing which runway to use
- Apply the control inputs needed for runway alignment regardless of the reported wind
- If you can't maintain runway alignment *and* glide path to your planned touchdown zone while on speed and in configuration in the last 400 feet of descent on final approach, don't wait until you flare to determine whether or not you can land. Go around *before* you flare, and go somewhere else.
- Don't let schedule, pride or a sense of "mission" prompt you to "give it a try" when conditions are clearly unacceptable.

Why do I insist on staying centered on the taxiway lines and the runway stripes every time I fly? Pride? Professionalism? It's so when the taxi area is tight (airplanes, obstacles, plowed snow, etc.) or the runway is very narrow (especially in a manageable crosswind), I have well-practiced confidence that "the successful outcome is never seriously I doubt."

Questions? Ideas? Opinions? Send them to mastery.flight.training@cox.net



How Much Flight Risk Should You Accept?
[Watch this video](#) for a thought-provoking answer to this important question.

PILOT WORKSHOPS

See https://www.pilotworkshop.com/how-much-risk?utm_source=flying-lessons&utm_medium=banner&utm_term=&utm_content=&utm_campaign=risk&ad-tracking=fl-risk

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Debrief: Readers write about recent **FLYING LESSONS**:

Midway through the annual Bombardier Safety Stand-down when I wrote last week's **LESSONS**, an aviation safety conference with the theme "The Normalization of Excellence," I asked readers to send in what they think "normalization" and "excellence" mean in the context of personal and business aviation. Reader Chris Larson wrote:

Normalization-- the process of beginning to accept or *accepting something that is not an everyday occurrence* or not widely accepted *as typical*.

Excellence-- exceeding expectations. Doing what others could expect you to do, even though you haven't said you would do it, *as it should be done, as it was meant to be done*, and doing it in a timely fashion. Doing it at a level rarely seen above what others usually do.

Reader Keith Duce adds:

My thought on "**Normalization**" would be *making the most difficult and complex tasks flow normally* with little or no stress on the task at hand. "Automatic mode."

I'll get to my notes on the Safety Stand-Down next week. Thank you both.

Questions? Comments? Suggestions? Let us know, at mastery.flight.training@cox.net

Call for Entries: The Richard Collins Writing Prize for Young Pilots

\$2,500 award for a pilot up to age 24

The Richard Collins family has partnered with Sporty's Pilot Shop to offer **The Richard Collins Writing Prize for Young Pilots**. To qualify, the writer must be a pilot (including student pilot) who is 24 years of age or younger. The article must be original, not previously published, and no longer than 1,500 words. The topic may reflect any aspect of general aviation flying.

The winning article will be published in *Air Facts*, the publication Richard's father Leighton founded in 1938 and which was relaunched eight years ago by Sporty's as an online magazine. The articles will be judged by a panel of three: Richard Collins, Jr., J. Mac McClellan, and Amy Laboda.

"Mac worked with Richard for nearly 40 years, and Amy was hired by Richard for her first full-time aviation writing position," says Sporty's Vice President and *Air Facts* Editor John Zimmerman. "Over the years, many young pilots were hired and mentored by Richard."

The winning article will be published in *Air Facts* while its writer, the Richard L. Collins Scholar, will receive a check for \$2,500. The prize will be awarded during the 2019 Sun' n Fun Fly-In in Lakeland, FL.

Articles may be submitted now through March 1, 2019, and sent in as Word document to editor@airfactsjournal.com. In addition, young pilots are required to submit a 100-word bio to accompany their articles.

"This writing prize honors two passions of my father – *Air Facts* and finding new writing talent among young pilots," says Richard's son, Rich. "My sisters, Charlotte and Sarah, and I are honored to not only help fund this prize, but to help to continue my father's legacy. We know this effort would make him happy."

Stick and Rudder

My notes and commentary on Chapter 7 of Wolfgang Langewiesche's essential classic, ***Stick and Rudder***, are now posted on [the Mastery Flight Training home page](#). Read notes on Chapters 1 through 7...and let me know what *you* think about Langewiesche's timeless message.

See <http://www.mastery-flight-training.com>

Share safer skies. [Forward FLYING LESSONS to a friend](#)



Pursue Mastery of Flight.

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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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