

# FLYING LESSONS for September 22, 2022

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 most 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 in your success as the 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:***

There was yet another [midair collision reported this week](#), the conflict of a Cessna 172 on an instructional flight and a Sonex Xenos at Longmont, Colorado. The instructor and learner died in the Skyhawk, as did the solo pilot of the two-seat Sonex light sport. Most details of this tragic crash are unknown to date, but it reminds us of the importance of vigilance in the airport environment.



See <https://www.npr.org/2022/09/18/1123710321/colorado-midair-collision-plane-crash-3-dead>

**Although this crash** does not yet suggest a common midair scenario, it does lead to yet another technique for raising your defensive shields in the traffic pattern: **making effective position reports.**

**Visual weather conditions**, especially at nontowered airports, provide great flexibility for practicing instrument approaches. When you do, however, remember that **not all pilots are familiar with the procedure you're flying.** Transient pilots may not know where to look for you. VFR only pilots probably don't know what you mean when you report "Hance inbound" or "final approach fix, RNAV 18."

**The same goes** if you're on an instrument clearance flying a procedure in visual conditions.

**An effective position report** is one that tells the pilots of other aircraft **where you are and where you are going.** To do that your report must be made **in terms other pilots understand**—even student pilots flying solo in the pattern, and pilots not familiar with the area.

**Shield yourself** from collisions by reporting your position and intentions **in terms any pilot can understand.** Instead of "final approach fix inbound," report you are "five miles north straight in runway 18, 3200 feet descending." That, and having all your lights on, will **help other pilots know where to look to find you.**

**If you're an instructor** conducting instrument training with a pilot "under the hood," remember **your primary role is to assure the safe outcome of the flight.** Most of the time inbound on the approach you must **have your eyes outside** looking for traffic, with occasional scans of the panel to monitor and teach your student.

**Before you begin** such an approach, brief your student that if you see another airplane you'll direct him/her to break off the approach following simple, clear instructions, such as "turn right

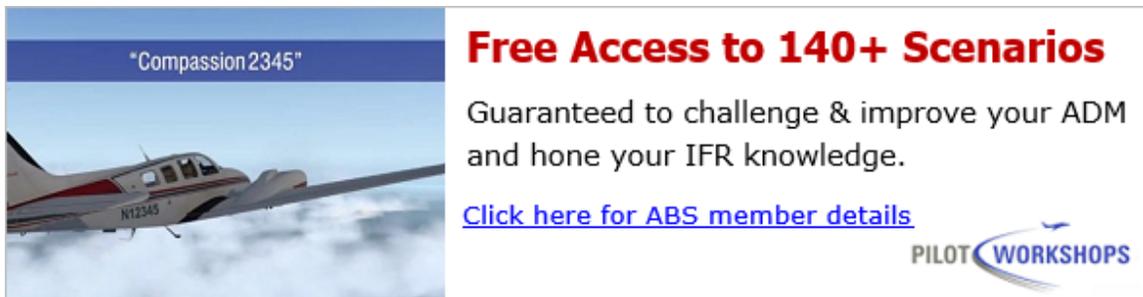
heading 230, climb and maintain 3000 feet.” You may have to sacrifice the training objective and fly something other than the published missed procedure to prevent a collision.

**If you’re a pilot receiving instrument instruction**, have this discussion with your instructor before flight. His or her foremost responsibility is to see and avoid other aircraft. Instruction is a strong but secondary goal of the flight. All it takes is a prompt from the instructor for you to break off the approach and follow the instructor’s missed approach instructions.

**Further**, make *effective* position reports especially inbound in the approach, remembering to put them in terms a solo student or a transient pilot will **understand** and **use to avoid colliding with you**. Don’t wait for the instructor to tell you; make effective position reports without prompting. **Consider it your job to prevent collisions**, even if you’re “under the hood.”

Comments? Suggestions? Questions? Let us know at [mastery.flight.training@cox.net](mailto:mastery.flight.training@cox.net).

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## Debrief:

Readers write about recent *FLYING LESSONS*:

Reader and Air Force pilot Christopher Cephlecha comments on [last week's LESSONS](#) stemming from the recent rash of midair collisions:

There have been a lot of comments about avoiding mid-air collisions in the traffic pattern recently. But, no one seems to emphasize **what is possibly the most important clearing tool**, and that is **the VHF radio**. I'm constantly amazed at **how so few pilots actually LISTEN to the traffic pattern calls** on the radio, and **fewer still are capable of building a picture in their mind of what's going on in the local pattern**. The cold hard truth is that it is extremely difficult to see any typical GA airplane beyond a couple of miles. **If you are relying totally on "see and avoid," you are accepting unnecessary and unacceptable risk.**

I'll say it: **The number #1 most effective clearing tool/procedure/technique for deconfliction in the pattern is using and listening and using the radio.** By doing this you **build situational awareness on who is in the pattern, who's entering, and who's departing, and where they [are]**. And with a bare minimum of radio work you can procedurally deconflict your flight paths. Now throw in the HUGE advantage of having traffic appear on your iPad or avionics via **ADS-B, and you logarithmically decrease your chances of having a mid-air collision.**

Bottom line: **make meaningful, concise traffic pattern calls, listen up, build a mental picture, correlate that with ADS-B traffic data, and you greatly decrease your chances of a mid-air in the pattern.**

As many, many instructors told me in the USAF, "son, the best clearing tool in the pattern is the radio".

I agree with the immense value of radio communication in the airport traffic pattern, Chris. We all should focus on making accurate, precise and timely position and intentions reports near and around airports, and actively listening near airports to **develop a mental image of our place among others in the airspace**. Trouble is, some pilots make inaccurate or imprecise reports, if they make them at all. Pilots have been known to transmit on the wrong frequency at times (I've

made that mistake myself). And those perhaps ill-advised, in the vast majority of U.S. airspace it is perfectly legal to fly with no communications radio at all (as I did in my Cessna 120 in the bad old days).

Still, your points are on target: use *all* available resources—radio, ADS-B—to “see” yourself as part of the big picture in the vicinity of airports (and everywhere). I’ll take it a step further: use radio calls, ADS-B and other resources to see your place in the airspace, and then **look outside to visually acquire other aircraft** based on what these resources tell you. While you look, scan the entire area to find pilots who, knowingly or not, or because of lack of equipment, are not making radio calls on frequency or appear on ADS-B. Thank you very much, Chris.

See <https://mastery-flight-training.com/wp-content/uploads/2022/09/2022.0915-FLYING-LESSONS.pdf>

Long-time reader and aircraft manufacturer test pilot Dale Bleakney continues.

I read your newsletter today. As usual, it was well thought out, informative, and thought provoking.

I too was taught to fly by a post WWII Undergraduate Pilot Training (UPT) instructor who taught in Stearman airplanes. He also taught me to **do a 360 turn before taxiing to the runway**. I not only look for airplanes where I would expect them to be, but due to some almost “bad” days, I now always **look for airplanes where I don’t expect them to be** as well.

A couple of examples of this may help bring this home for your readers and may even prevent a near mid-air:

1. One night I was in the pattern with a student at [Wichita, Kansas’] Jabara airport (KAAO). We were landing to the south. When landing to the south, the traffic pattern is a right-hand traffic pattern. As we turned base, I did my normal **check final left, check final right, check straight ahead**. Much to my surprise, there was **an airplane on a left-hand base right in front of me**. I had heard no communications from this airplane. We deviated to the north and landed without incident. **Some people on the ground saw it all happen and thought we were going to hit**. It was close, but not that close. The closeness the people saw on the ground was more of an optical illusion.
2. One early morning, I flew to Independence, KS (KIDP) in a G58 [Baron] to drop off some customers. **I made calls at 10 and 5 miles, downwind, base, and final as I always do**. When I turned base, I did my left, right, center scan, and much to my surprise, there was **a pipeline patrol airplane right in front of me**. I pushed the nose over and **avoided the collision by less than 50 feet**. The 182 never saw us. It was the second time I was in a near mid-air early in the morning. I think there is a natural tendency for all us to **think that because it is really early or really late, there should be no one else out here** and we don’t need to look.
3. One final account that will hit home (maybe) with your readers. A few years ago, I was at Beech Field (KBEC) taxiing for takeoff in a [Cessna] Sovereign. Beech Tower cleared me to taxi and back taxi on the runway. As I approached the runway, again, I did my left, right, center scan. I was past the hold short line and getting onto the runway when I noticed **a Bonanza (destined for KAAO (Jabara) on short final for KBEC**. I cleared the runway on a west taxiway, and the Bonanza landed. I hope the Bonanza pilot learned something from the event. I surely did.

TCAS, TIS, TAS, and ADS-B are great aids to the see and avoid concept. But I agree with you and the FAA that **the biggest way to avoid collisions is to scan properly, look out** (use the MFD above the glareshield), **use proper radio communications, and be constantly vigilant**.

Knowing these and several of your other stories, Dale, you live a charmed life. May it continue so! Seriously, we make (most of) our own luck and your vigilance in the pattern makes a difference in your life and that of many others. Thanks for letting us learn from your experience.

Reader and [Vectors for Safety](#) guru Gene Benson follows up on my call last week for your input to his research on maintenance error-related aircraft accidents:

Thanks for putting that bit into *FLYING LESSONS* about maintenance issues. I have received several valuable stories and have responded to the pilots. I think the problem is bigger than I thought. Of course, like everything else in aviation safety **getting the attention of the majority of pilots is the difficult part**.

I like your "Shields Up" writings. I think that **the collision risk can only be increasing as the older and slower airplanes leave the fleet and are replaced by the newer faster models**. Coupling that with the increased **tendency to look inside at all the pretty colors on the displays rather than look outside** is a

disturbing trend also. I hope that as more airplanes have ADS-B IN traffic awareness might increase, but again that means looking inside. Time will tell.

Thanks again for your help.

You're very welcome, Gene. Glad to help.

See <https://www.genebenson.com>

More to say? Let us learn from you, at [mastery.flight.training@cox.net](mailto:mastery.flight.training@cox.net).



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### Correlation and skillsets

Thank you very much to Rick Lugash for becoming a monthly contributor and supporter of *FLYING LESSONS Weekly*. I greatly appreciate all my supporters, recurrent and one-time donors, for your commitment that helps cover the costs of hosting and delivering the weekly reports. I appreciate any comments, criticism and suggestions you might have for making it even better, any time. Rick writes:

You are very welcome, Tom. The irony is that you've been one of the best flight instructors I've ever had.

Your power is the context you put everything in. It's the application of your content to something tangible. Or as you put it in [this month's Aviation Safety article](#), the “**correlation.**” It's what I call “*the why behind the what.*”

I've been practicing these ground maneuvers for the commercial rating for a couple months now and never correlated the maneuver to enhanced flight path management (FPM) as evidenced by the two crashes you reference. That golden nugget of wisdom was like a whack on the side of my head.

Overall, the quality of flight instruction is abysmal. **Being a good flight instructor requires a very different skill set than being a good pilot.** I do a lot of flight instruction. At nearly 900 hours, I still keep a weekly flight lesson at my local airport (Camarillo) with my primary instructor. She's a good pilot, but terrible at the correlation part. **I've had to learn the context, or correlation all of that myself**—and that's hard to find in any of the training literature.

I have the benefit of doing this full time. Most don't so most never truly understand—or connect the dots of why we're trained to do things — the *why behind the what*. So when I find the real experts in any field that I'm deeply committed to, I glob on and hold tight and absorb as many of those golden nuggets of wisdom as possible.

Thank you for everything that you do — from your *LESSONS* to your leadership in our industry.

That means a lot to me, Rick, even more than your commitment of a monthly contribution. You've derived a vital point that is lost on most in aviation, from first *LESSON* to the senior captain's seat: there is indeed a very different skill set between a great pilot and a great flight instructor. A great instructor needs both; a great pilot without the instructional skills should consider a different path to career goals. Unfortunately those paths are very few and far between; since the dawn of aviation we've not been able to turn this realization into action to improve the quality of flight instruction.

I've been extremely fortunate to have been exposed to people and opportunities that have helped me grow as an instructor. On a parallel track beginning with Edmund Wong in 9<sup>th</sup> grade Social

Studies and Mrs. Mak in 10<sup>th</sup> grade English, through the benefits of a liberal arts degree with a major first in Astronomy and later in History, I learned how to research, to write and speak, to teach...and to find correlations. I keep practicing, as 95-year-old cellist Pablo Casals is credited as saying when asked why he still practices every day, because **“I feel I am making daily progress.”** Thanks for your kind comments about my work, Rick. I wish you the best as you make daily progress as an instructor as well.

See <https://www.aviationsafetymagazine.com/airmanship/advanced-maneuvers/>

## Re-double clicking

To my “friends at Mallory Airport” who wished me a safe flight home on the Charleston Approach frequency as I climbed out of Charley West (KCRW) last Sunday morning, **thank you.** I hope you heard my “double-click” in acknowledgement and you too had a safe and enjoyable flight.

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

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