



FLYING LESSONS for August 22, 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.**

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This week's LESSONS:

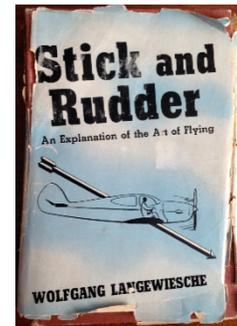
Reader Mike Butler joins several other reader who have recently asked:

May I have your complete set of [Stick and Rudder](#) notes?

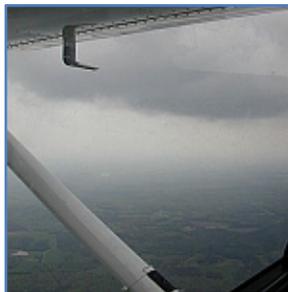
I have fallen behind in transcribing and adding these notes to my website. I'll double down and finish transcribing my notes, then get them posted. This week I've got my notes and commentary on Chapters 5 and 6 of Wolfgang Langeweische's classic text on how airplanes fly and how to fly airplanes.

I'll keep transcribing and adding chapter notes until I have them all posted. Meanwhile, see what I've got done so far on [the Mastery Flight Training website home page](#). Thanks for your patience.

See:
https://en.wikipedia.org/wiki/Stick_and_Rudder
<http://www.mastery-flight-training.com>



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.



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*:

Reader John Townsley writes:

I thoroughly enjoyed your NAFI/American Bonanza Society discussion of engines, and also reviewed the 2013 Oshkosh recorded video of your outstanding talk about Emergency Procedures [EPs].

Thank you (again!) for your outstandingly helpful insights. I am positive more than just ONE pilot (and likely MANY more) has you to thank for avoiding a fatal mishap at least once in their flying experience.

Thank you very much, John. I hope pilots have not been in perilous situations, but am gratified if I have had any positive impact on the outcome for even one pilot and his/her passengers (usually, family). The webinars are available for anyone to listen: the ABS event titled "[Don't Fear Your Engine](#)," primarily specific to Beech airplanes but with information valid for all, and the National Association of Flight Instructors webinar that addresses this in a more generic way from the viewpoint of flight instructors, "[What We Should Be Teaching About Engines](#)." And the EAA/FAA Safety Center program you mention as well.

See:

<https://www.bonanza.org/globalassets/asf/absweb-landing-page.pdf>

<https://www.nafinet.org/mentorlive>

Several readers wrote about last week's *LESSONS*, my story of weather evaluation and my IFR flight into AirVenturen2018. SR-71 pilot Rich Graham writes:

Your article on flying into Oshkosh in marginal weather conditions was great. I'm confident it made a lot of your readers think about planning ahead and having options. It was obvious you had done your homework and had backup plans for deteriorating weather. Not sure if your plane was equipped with an autopilot or not, but you had to be one very busy pilot if you didn't!

The airplane has a new Garmin GFC600 autopilot, Rich, which helped reduce workload a lot. It indeed was a busy time but, as you said, having done my homework ahead of time it was very manageable. Thank you.

Reader Bill Caton adds:

Thank you for sharing this. I did not ever perceive this as bragging at all. Rather, it is a great story of the thought process of observation, evaluation, planning and implementation. I'm curious as to the tools [you], used particularly on the trending observations. Did you use Foreflight or something similar?

Thanks for detailing this. I will remember this much longer and apply frequently thinking about live application rather than textbook theory.

Thanks Bill. I don't know of any software to look back in time at past forecasts. To do as I suggest you need to view forecasts for a few days before a planned trip (and it helps to keep a hard copy), so you have them to compare against actual weather conditions on subsequent days. Bill continued:

Thanks. Do you use ForeFlight primarily?

For official purposes, yes. But I'll also look to see if The Weather Channel and local sources don't disagree with the aviation forecasts. I default to the aviation, but if there is disagreement I'm more skeptical of the aviation forecasts.

Skeptical of aviation. Interesting.

I did have that experience last week. Weather planning on leaving Galveston [Texas] indicated cumulonimbus and storms at Houston Hobby and Bush Intercontinental (IAH). It also showed the same southwest as the high was moving out. This continued on the forecast to 60 -100 [miles] north of Houston. Needless to say, I didn't sleep all that well the night before. My plan was to depart and use vectors as necessary to fly east along the coast and then up to Dallas. Dallas and points south for 100 miles were clear and forecast [to be] that way all day.

I departed to the south and received a vector for 360 degrees and maintained that almost to the final fix on the DP [departure procedure] and was within 25 miles of IAH and there was only 2,000 broken and tops of

6,000. Beautiful flight. Fortunately the briefer that morning said the storms would not come until the afternoon which is typical.

Moral of story: Check with briefer earlier, and be suspect. However, I am glad the forecast were on the conservative side.

That's true, Bill. Sometimes forecasts are correct, sometimes conditions are better than forecast, and sometimes they are worse. I compare non-aviation forecasts to aviation weather to see if they agree. If all sources agree, then the variables that define expected conditions are probably not that complex. The forecasts will probably be accurate. If there is disagreement in one weather sources' forecast and others, however, it probably means the variables are many and may not be well understood. In that case I will still default to the aviation forecasts, of course, but I will treat them more skeptically.

Going back to an early June *FLYING LESSONS* Debrief email, reader Paul Railsback questions a statement I made about changes in Part 23 of the Federal Aviation Regulations and the promise of new, safety-related modifications to existing aircraft. Referring to my comments about possible new devices to warn of low fuel levels, Paul writes:

I am not sure that the new Part 23 is going to be sufficient to ease the process of adding modern equipment to production airplanes. I think Part 21, particularly Subpart E needs to be amended to reflect the same "performance based" concepts adopted by Part 23.

That was actually my argument with AOPA for a long time. Both they and FAA consistently tell me that the Part 23 changes will loosen what have traditionally been Part 21 Supplemental Type Certificate (STC) processes also. We'll see.

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

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