



**STEVE KROG**

COMMENTARY / THE CLASSIC INSTRUCTOR



## Frustrations and Questionable Training

A case for quality instruction

BY STEVE KROG

**AIRVENTURE IS A TIME** for me to take a break from everyday flying and see old friends, make new ones, and talk flying with everyone. I always think of AirVenture as an annual family reunion where all members of the family get along and are focused on one thing — the pleasure of flight.

Before the opening of EAA AirVenture Oshkosh, I scanned the massive list of available forums. This year there was a forum that caught my attention. It was a designated pilot examiner/CFI forum held in the FAA center. The primary speaker was DPE and airline pilot Sarah Rovner. Her overview on checkride weaknesses really helped define some inconsistencies flight schools have encountered this past summer.

I've been a flight instructor for more than five decades and have seen many changes in the evolution of flight training, some good and some not so. My greatest frustration is the movement away from actually learning to fly an airplane by attitude and feel and moving toward dependency on the whizbang gadgets and talking glass panels.

Yes, I've also been accused of being from the old school and told that I need to adjust with the times. I beg to differ. The basics of flight that the Wright brothers learned by doing still apply to the airplanes we fly today even if they have every known flight instrument available to a pilot. Lift, gravity, thrust, and drag are still the primary inputs in making an airplane fly.

### SLOW FLIGHT, NO LONGER SO

The new FAA Airman Certification Standards (ACS) state that to demonstrate slow flight in a satisfactory manner, it must be done as follows:

Establish and maintain an airspeed at which any further increase in angle of attack, increase in load factor, or reduction in power, would result in a stall warning.

For those of us who have been flying for a decade or two, we know that the stall warning horn sounds when the aircraft airspeed is anywhere from 5 to 10 knots above stall speed. When practicing slow flight according to this, the student never learns the true feel of the airplane when it actually approaches that fine line between slow flight and an impending stall.

I'm told this is done for safety reasons. However, if the student never experiences true slow flight, how will they know what to expect? How does it feel? What is the airplane telling the student? Before circuit breakers replaced fuses in training aircraft, unbeknownst to the student, I would remove the stall warning horn fuse before the flight. Once established at a safe altitude, I would ask the student to demonstrate slow flight. The timid students would get nervous knowing they were approaching stall speed, but the horn hadn't yet warned them. We would spend time transitioning to level

flight and back to slow flight. I would have the student tell me when they felt they were on that feather edge of slow flight without creating a stall. For those students that focused on the airspeed indicator, I would put a cover over the instrument. Then we would proceed with practicing slow flight simply by attitude, sound, and feel. I feel this made a better, more competent and safer pilot.

### STALLS: THE CFI'S GREATEST FEAR

I try to stay in communication with a handful of DPEs from around the country. They openly share what they are seeing and experiencing when conducting checkrides. Regarding maneuvers, **stall performance leads as the primary student weakness.** The ACS outlines power-off stalls as follows:

*Establish a stabilized descent. Transition smoothly from the approach or landing attitude to a pitch attitude that induces a stall. Acknowledge cues of the impending stall and then recover promptly after a full stall occurs.*

When I read this, it seems quite simple to perform. However, that is not often the case. Many students cannot perform a stall with a break. In my opinion, this reflects back to the flight instructor and the flight school.

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At our flight school we take stall training seriously and train well beyond the minimum requirements called for in the ACS. Stalls with breaks in all configurations and power settings are practiced. Additionally, most students receive spin training. I've stated this before but will do so again. A pilot has no idea how they will react in a spin. They can read about spins and watch spin videos all day long, but until experiencing a spin from inside the cockpit, they have no idea what they might do.

During the week of AirVenture I had the opportunity to meet with representatives from several university (Part 141) flight schools. Other than having a difficult time scheduling checkrides with DPEs, I wanted to know their opinion of the flight instructors employed by the university. Flight instructors are hard to retain after they reach a certain number of flight hours. Even more troubling is that the instructors are not taking the flight training seriously. It is looked upon as a necessary evil required to get to the next level of their flying career. Few take it seriously. Consequently, the quality of flight training is lacking. If there is a weak link in the flight training system nationwide, it is in this area.

The FAA safety inspector that I work with shared a story proving my point. An area DPE was giving a private pilot student the oral portion of the checkride. When he asked the pilot candidate to tell him what a spark plug is, what it does, and the number of plugs in the airplane being used for the checkride, the student had no idea. Several additional simple questions about the engine and engine parts later, the examiner ended the oral with the "pink slip."

After giving the situation some thought, the examiner decided to call the recommending CFI. He wanted to know if the student was that ill-prepared or if the problem was further up the food chain. He contacted the CFI and began asking the same questions. The CFI couldn't answer the spark plug questions either. At that point the FAA was contacted. It investigated and found that all the instructors were lax in aircraft knowledge, and the entire staff was given the option of mandatory remedial training or each taking the FAA 709 ride. All agreed to the remedial training option, which they are all undergoing now.

Sadly, this is becoming more the norm than the exception. The quality of primary flight training might be adequate for checking the

boxes, but it sure isn't enough to ensure that we are turning out safe, competent pilots.

Another example from an area DPE also proves my point. The student had prepared the cross-country portion of the flight checkride on his iPad. It became immediately apparent to the DPE that the student was not paying attention to the surroundings but rather doing everything based on the magic magenta line. At that point, the DPE reached over and took the iPad, stating it had failed. To help make it a bit easier for the student, the DPE did this within 3-4 miles from the departing airport. Without his iPad, the student was unable to find the airport, and after performing several 360-degree turns, admitted he had no idea where he was and needed some help. I've proven this to be true with young CFI candidates, too.

The procedure for determining your location while in flight has been lost. Students are not taught to think outside the box, use common sense, or try to determine where they are located without mild panic setting in.

Many years ago, famous air show pilot Duane Cole wrote a book titled *Happy Flying, Safely*. Flying his clipped wing Taylorcraft all over the United States, usually without a radio, he was never lost but rather sometimes didn't quite know where he was. He wrote that finding himself in that situation, he would fly low over a set of farm buildings and look for the chicken house. Back then, all farms raised a few chickens. All chicken houses faced south. From that he could determine he was headed in the right direction toward his destination.

Chicken houses aren't nearly as prevalent today. But there are some things a pilot can do to help find their location should they experience electrical navigation system failure. Climb for instance. Adding 1,000 feet to your altitude will increase your visibility range by nearly double. Note your airspeed and the estimated time you've been in the air. For example, you're cruising at a groundspeed of 80 mph, and you have been flying for 45 minutes. A quick calculation tells you that you are roughly 60 miles from your departure point. Your planned destination was 100 miles away from departure. So, rather than panic, assume you are roughly 40 miles away from your destination. Take a couple long deep breaths, fly the airplane, and continue on your heading. Unless you completely miscalculated the wind, the destination and familiar surroundings should soon begin to appear.

Sadly, these simple things are no longer taught. Rather, a curriculum is followed, and the boxes are checked. Common sense and learning to think is never part of the training. I've only touched on a few things here. There are dozens more situations exposing a lack of training outside the box. Hopefully the new generation of pilots being turned out will be able to acquire some of these skills without hurting themselves or their passengers.

We've moved into an era of flying airplanes by pushing buttons and turning knobs without ever developing a feel for or an understanding of the basics of flying. For long-term safety, I would like to see a return to some of these basics. They may save a life or two.

Enjoy the pleasure of flight — but do so safely. *EAA*

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**Steve Krog**, EAA 173799, has been flying for more than five decades and giving tailwheel instruction for nearly as long. In 2006 he launched Cub Air Flight, a flight training school using tailwheel aircraft for all primary training.