



**STEVE KROG**

COMMENTARY / THE CLASSIC INSTRUCTOR



# Teaching the Teacher (To Be)

Prepping a new crop of CFIs

BY STEVE KROG

**THIS PAST SUMMER HAS** been eventful for me. In addition to the near two dozen private pilot students completing our flight program, I've had the opportunity to work with three certificated flight instructor (CFI) candidates. The experience has been fun but especially challenging.

Often the most difficult challenge for a CFI candidate is getting them to speak in clear and concise terms when defining and explaining a maneuver. You might scoff at this, but the next time you are on a pleasure flight, pretend to "define, describe, and teach" a simple maneuver like a steep turn. It's easy to fly but can be quite difficult when you have to explain each step of the

maneuver. You'll come away with a new appreciation for what your instructor did for you while you were learning to fly.

To prove my point to an instructor candidate, I'll play the role of new student while the candidate tries to teach me a maneuver. I am careful to explain that as a role-playing student, I will *literally* do exactly what the instructor asks me to do. If I'm told to move the control stick to the right, it goes all the way to the stop!

I was working with a candidate early one morning several years ago who was to teach me a simple medium or 30-degree bank 180-degree turn to the left. The maneuver was first explained and then demonstrated, but lacked precise detail. Now it was my turn. The instructor reminded me to look to the left and clear the area for traffic, which I did. Then I was told to apply left aileron by moving the control stick to the left, which I did. But I moved it full left to the control stop. The left wing instantly dropped, and the aircraft did a hard yaw to the right.

This caught the instructor quite by surprise! While trying to tell me to relax the amount of aileron I had applied, I was also being told to apply left rudder. Naturally, I applied full left rudder while returning the control stick to neutral. Now in a hard-left skidding turn, the instructor took the controls and righted the airplane back to straight and level flight. At this point, the instructor suggested we return to Hartford and discuss what I had done wrong.

The point I wanted to make with this instructor candidate was that every student is different in how they interpret what you say and, consequently, respond quite differently. I responded literally. Another student may be timid and barely make any control inputs. This instructor candidate never made that mistake again after that short flight example.

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A key area that I strongly stress to instructor candidates is taking the time to figure out how their students think — basic psychology 101. Every student, regardless of age, learns how to perform things in a different manner. One student may grasp the concept of a steep turn while explaining the maneuver on the ground. On the other hand, the next student may not understand it until seeing it done and trying it for real in the air a couple of times.

Many of the younger instructors with whom I've become acquainted approach instructing only as a necessary means to an end to build time toward a better-paying aviation job. Thus, little or no time is devoted to getting to know and understand each flight student. This is a real disservice to the unknowing student, in my opinion.

A student's attitude toward flying is heavily influenced by their instructor's conduct and attitude. If the instructor has a lax "I don't really care" attitude, the student will emulate that and use it as a guideline for future flights. "My instructor never cared if

my altitude was sloppy, so why should I? It doesn't really matter does it?" A good pilot will always be in a learning mode and will strive to do and be better every time they go flying.

#### SO MUCH TO KNOW

Another key area overlooked by many is the new maneuvers a flight instructor candidate is required to perform. Unfortunately, some of these maneuvers should already have been taught to a pilot under either the private pilot or commercial pilot curriculum.

One of the three summer instructor candidates had attended an aviation flight college a dozen or so years ago but put her aviation goals on hold to marry and raise a family. She obtained the normal certificates and ratings: private pilot, instrument rating, commercial pilot, and an aviation management degree. That is where her training went on hiatus. A dozen or so years passed, and she was ready to again strive to become a flight instructor.

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Before beginning work on the instructor rating, she had recently earned her multiengine and multiengine instrument ratings, as well as passing both of the instructor written tests required of all candidates. Prior to coming to me, she had also enrolled in a five-day instructor preparation course with the intention of being ready for the checkride upon completion. Unfortunately, this course turned out to be less than promised or expected.

As we began outlining all the things a CFI candidate needs to have knowledge of, her frequent response was, “They didn’t talk about that subject in the prep course.” Unfortunately, there were several subject areas that we needed to discuss and absorb to be ready for the eventual checkride that were not covered in the prep course.

For the first three days, we did no flying. Rather, we reviewed all the private pilot requirements listed in what is called the Private Pilot — FAA Airman Certification Standards. Flying each of these maneuvers is quite easy for someone with her flight skills. However, describing, explaining, and demonstrating each is quite another matter. Using a model airplane, I had her teach me every maneuver required of a private pilot candidate before making the first flight.

Then, and only then, was it time to take to the air and do some role-playing. She was the instructor, and I was the student. Having worked with other CFI candidates, they all concur that I am — or was — the worst student they will ever have to instruct!

After several flights, she was doing an incredibly good job on all the required maneuvers, and it was time to move into phase two, commercial pilot maneuvers. It was in this phase that we found a significant void in her previous flight training.

She did not recall ever having to do accelerated stalls or steep spirals, both requirements for the commercial certificate. Nor did she ever have to do stalls with a full break of any kind. “We were always taught to recover from a stall when the warning horn went off,” she commented. Fortunately, as an instructor candidate, full stalls with breaks are required. Having identified these two deficient areas, we worked hard to get her comfortable and confident with both maneuvers, both in performing as well as teaching them.

The new maneuvers required of an instructor include spins and spin training, cross-controlled stalls, and secondary stalls. As a longtime instructor, I personally feel all three of these maneuvers should be taught at the private pilot level (but that is an issue to be addressed another day). New instructor candidates need to



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know how to define, explain, and perform each of these three maneuvers, mostly for the purpose of being able to both recognize and recover should a student get themselves into any of these situations while receiving dual instruction.

Spin training is quite simple, especially in a J-3 Cub as it does not want to spin on its own and easily recovers from a spin. We must make it spin. Once we accomplished one- and two-turn spins with ease, it was time to complete the training with the additional two stalls.

Secondary stalls can occur if an apprehensive student fears doing stalls. A stall with a full break is performed, but the student quickly relaxes the back-pressure and then applies too much back-pressure during the recovery. The nose rises and a second but more abrupt stall occurs. Relaxing the back-pressure and lowering the nose leads to a quick recovery, but it certainly gets a student’s attention the first time it is experienced.

Cross-controlled stalls are a bit more interesting. I like to teach them in a scenario-based situation. From a safe altitude, I select a road perpendicular to our flight path and tell the student that

the road is the runway. I tell them not to use more than 10-12 degrees of bank and whatever rudder pressure is needed to align the aircraft with the road. Power is reduced to idle while doing so. Note the starting altitude and try to maintain it. When the stall and break occur, the student is expecting the top wing to drop, but in this configuration, the bottom or lowered wing breaks sharply. Perform the required movements for recovery and, when at level flight, note the altitude again. Even with the knowledge of what is about to occur and practicing these stalls, altitude loss is usually 500 feet or more, depending on the aircraft being flown, leaving no margin for error should a cross-controlled stall occur in the traffic pattern.

These stalls are seldom discussed and hardly ever demonstrated, except when an individual is training for the flight instructor certificate. For those of you who like to be challenged and strive to become better and safer pilots, talk to your local instructor and see if they will give you some dual in these areas. The training may have to be done in an aircraft other than your own. Regardless, it would be well worth the investment to become a better pilot, and it may save your life! *EAA*

**Steve Krog**, EAA 173799, has been flying for more than four 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.