



STEVE KROG

COMMENTARY / THE CLASSIC INSTRUCTOR

Until the Prop Stops

Keep your head in the game!

BY STEVE KROG

I RECENTLY SPENT a rainy nonflying day reviewing the FAA's June 2019 accident/incident report. I'm certainly no expert in determining causes. However, as a flight instructor, it became apparent that many of the miscues could be attributed to lack of pilot awareness. In more simple terms, keeping your head in the game from the time the prop begins to turn until it comes to a complete stop can — and will — prevent mishaps.

Several reported incidents involved loss of control after an uneventful landing. In one instance, the aircraft was rolling out, but a gust caused the aircraft to veer to the left. Right rudder was applied, but the aircraft exited the runway tail first, damaging the tail and the left main landing gear leg. Let's analyze this situation step by step.

The approach and touchdown can be assumed to have been good. However, at this point, things that should have happened didn't. Let's assume the rollout was proceeding in an uneventful manner. The pilot relaxed believing the flight was over and all but quit flying the airplane. It was at this point a bit of wind pushed the tail to the right and the nose left. Late in recognizing the change in direction, the pilot stomped hard on the right rudder causing the tail to aggressively change direction, now swinging left with a good deal of momentum. The pendulum action of the tail has exceeded the forward energy of the aircraft, causing it to pivot or skid on the left main gear leg and causing the gear leg to collapse. When the aircraft finally came to a complete halt and the dust had settled, it was facing nearly 180 degrees from the direction it had been going, the left gear leg was badly damaged, and the tail post was bent.

The pilot of the now-damaged airplane was asked to explain what happened. His statement read: "The landing was uneventful, but then a wind gust from the left hit me. I punched hard on the right rudder, and I'm not sure what happened after that."



I like to try and visualize these incidents because they make me aware of situations I need to simulate with students. Let's now look at this event. The pilot stated the approach and landing were normal. There's nothing yet wrong here. Then a gust from the left struck the aircraft. At this point,

**The lesson learned is a simple one:
Keep flying the airplane until it
and the prop comes to a stop.
Then and only then does one
adjust the carb heat, trim, radio,
or transponder settings.**

one can assume the pilot had probably forgotten to continue flying the airplane, taking his eye and mind off the rollout. For a moment of inattentiveness, the airplane decided to have a mind of its own and responded to the wind gust. By the time the pilot refocused on what was happening, the incident was almost beyond the pilot's control. The plane was at an approximate 45-degree heading off the runway centerline. Late in recognizing the predicament, the pilot applied hard right rudder. This caused the air-

craft to change direction, but the momentum of the right turn used up all the forward energy. The hard-right turn and the pendulum effect of the fuselage not only swung the tail but now the momentum was carrying the aircraft backward in a tail-first attitude until coming to rest off the left side of the runway.

We'll never know for sure what really happened in the cockpit during this incident. Perhaps the pilot looked away from the runway while removing carburetor heat or reached for the map that had fallen on the floor. In today's world, he may have reached for his cellphone to call home. Inattentiveness may have played a major role in this incident.

The lesson learned is a simple one: Keep flying the airplane until it and the prop comes to a stop. Then and only then does one adjust the carb heat, trim, radio, or transponder settings.

With the benefit of a 200-foot wide turf runway offering a wide margin for error, I'll sometimes try to distract a student during the rollout. It proves to the student how quickly something can get out of hand if one isn't paying attention.

The month of June also proved to be hard on airplanes and the pilots attempting night landings. In one instance, the pilot flew the aircraft into the ground short of the runway. The FAA refers to this as controlled flight into terrain. In two other instances, the aircraft struck trees off the approach end of the runway. How could something so easily avoidable happen you ask?

There is a very good reason why the FAA requires a pilot to perform night landings every 90 days. Depth and altitude perception are significantly affected. This factor could easily be the reason for each of the above three incidents. If night flying is infrequent, it will take more than three takeoffs and landings to be completely comfortable — and safe!

The method I like to use is simple. First, I start doing takeoffs and landings just before dusk and continue doing them until full darkness sets in. The student adapts quite easily to the night landing. After three or four night landings, I'll have the student leave the traffic pattern, fly away from the airport for several miles, then return and enter the traffic pattern and land. Students often comment, "Wow, that is a lot different than I thought it would be."

FAR AIM

2020

Federal Aviation Regulations Series



ACCURATE,
RELIABLE, TRUSTED.



asa2fly.com/faraim



**AVIATION
HEADSETS
PORTABLE
INTERCOMS**

New Transcom III Portable Stereo Intercom

SPO Portable Stereo Intercom

- Make and receive cell phone calls through the intercom
- Works with stereo or monaural headsets
- Music input for Cell Phone or MP3 player
- 5 Year Warranty
- Operates on battery or aircraft power
- Includes a cell phone / music input cable and a cable for DC aircraft power
- The Transcom III models available are: **SPO-23** (2 place), **SPO-43** (4 place), and **SPO-63** (6 place)



S-45S Stereo Headset

- Microphone for high noise environments
- Dual volume controls
- Gel & foam ear seals
- Air pillow head pad
- 5 Year Warranty
- Youth version with child sized headband available
- Stereo / Monaural switch on the cable



PTT Push-To-Talk Switches

- Attaches to the control yoke with a hook and loop strap
- Available versions:
PTT-HS Use with headset alone or with a portable intercom
PTT-ICS Use with a portable intercom
- Coiled cable extends to 6 feet



See our web site for our complete line of headsets, intercoms, and accessories.

Sigtronics Corporation

909 305-9399 • www.sigtronics.com
178 East Arrow Highway, San Dimas, CA 91773

STEVE KROG

The key to a good night landing is a stable approach. To teach this, I'll have the student remain at traffic pattern altitude and fly an extended downwind leg (there's an exception to every rule). After turning onto final, establish the desired landing configuration, maintain a constant accepted approach speed, and glide to the approach end of the runway. After two or three extended approaches, the concept of the stable approach while gliding to the runway end has been established.

There is one very good exercise that is easily demonstrated and understood when practicing night flights. That is demonstrating how to determine if you are too high or too low on the final approach. If too high, the lighted runway appears to be moving downward and toward you. And if you are too low, the runway will appear to be moving upward and away from you. The lighted runway really helps illustrate this concept.

Another incident involved an aircraft losing power while on final, causing the aircraft to hit the terrain 500 feet short of the approach end of the runway. The pilot's statement reads: "Just after turning from base to final, the engine quit." No reference was made to an attempted restart. The airplane was heavily damaged, but the pilot was not hurt (except maybe his ego).

Could this incident have been prevented? The answer is maybe yes and maybe no. Today, many of the flight schools teach extended traffic patterns. I, personally, am not a fan of this. Rather, I prefer teaching and flying a traffic pattern that allows me an even chance of landing at the airport should the engine quit at any point while flying the traffic pattern. Had this individual been flying a tighter traffic pattern, the landing may have been uneventful. However, if one is flying an extended pattern with a 1-mile or longer final, chances are minimal that the aircraft could ever reach the runway if the engine quits. I'm a firm believer in stabilized final approaches — but from a quarter mile out versus 1-mile out. My rule of thumb is if I have approximately 500 feet of altitude at a quarter mile, the odds of landing on the runway are definitely in my favor unless I'm dealing with a strong surface wind. But in that situation, my turn to final is even shorter than a quarter mile.

A good pilot practicing safe methods will make pattern adjustments for every landing, taking temperature, density altitude, and surface wind into consideration. The best method I've found for teaching this is to reduce power to idle when abeam the approach end of the runway on downwind. Then I let the student figure out the adjustments that need to be made to land safely on the runway. Exercises like this help develop a student's understanding of the aircraft being flown and the effects of the environmental conditions for every landing.

There's an old saying that states that luck is when preparation meets opportunity. A good pilot will always be in a learning mode and thus preparing for almost any situation when flying.

Fly the plane until the prop stops and keep your head in the game. *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.

I'll sometimes try to distract a student during the rollout. It proves to the student how quickly something can get out of hand if one isn't paying attention.