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COMMENTARY / THE CLASSIC INSTRUCTOR

Probable Cause

Pilot's failure to maintain directional control during the landing roll

BY STEVE KROG

ON A RECENT SNOWY and blustery afternoon, I entertained myself by scanning the NTSB accident/incident reports covering the past several calendar years and came away wondering how so many of the reported events involved loss of control after landing. Many of the incidents involved tailwheel aircraft, but there were also several tricycle aircraft listed as well. Why do these situations continue to happen?

After some thought, I turned to Wolfgang Langewiesche, author of the book *Stick and Rudder*. Many of you are familiar with this excellent book, and if you are not, I strongly advise that you acquire a copy for your aviation library. He states the following:

More airplanes are wrecked during the landing run than during any other maneuver. Just at the time when the pilot tends to think his worries are all over, the airplane is actually in its most vicious mood. Here is what happens: The airplane swerves a little, say to the left. The pilot, dumb, happy, and relaxed, thinks, "Come on baby, keep straight" and bears down a little on the right rudder. But the swerve fails to stop. On the contrary, it gets sharper. The pilot, now awake, gets busy on his rudder and his brakes, but it is too late; within less than a second, the swerve has become a vicious skid, similar to the type of automobile skid in which the rear end swings clear around. Full right rudder and hard right brake are powerless; on the contrary, the brake seems to make it even worse! And while the airplane thus whips around it also heels over to the right: the left wing rises, the right wing goes down, drags on the ground — and cracks!

And the pilot's face is red — a ground loop!

I've touched on this subject several times over the past year or so, but these incidents continue to occur, so we need to continue addressing the problem. What are the common causes (in some cases, excuses) for these incidents? Reading the pilot reports of the incidents indicates several common factors.

- Wind/weather
- Distractions
- Inexperience
- Lackadaisical attitude

WEATHER

Changing surface wind conditions are often the reason offered for causing a landing incident. The pilot(s) attempted a landing when, suddenly, it seems the wind just picked up a wing. Rudder and aileron inputs were applied but seemed ineffective. Consequently, the aircraft departed the runway, damaging a wingtip and possibly a runway light, or worse. Both the airplane and the pilot are repairable. One requires some new aluminum or a bit of fabric while the other needs ego repair. A few more practice crosswind landings, and this incident will not be repeated.

Dealing with crosswind takeoffs and landings continues to be a problem for many pilots. There are three primary reasons contributing to this problem. The first is a lack of proper training. Many new, young instructors may be uncomfortable teaching stiff crosswind landings. This often leads to inadequate teaching of crosswind landings and ends with newly certificated pilots having limited crosswind training.

Lack of maintaining currency and, equally important, proficiency can also lead to situations potentially causing an incident or, even worse, an accident. Many of the pleasure flying pilots I've come to know don't always practice crosswind landings. They prefer an early morning or evening flight when the winds are calm and the air is smooth. We all like to fly in those conditions, but there are times when we are forced to deal with crosswinds.

An early morning two-hour round-trip flight for breakfast may take three hours. By the time you're headed home, surface winds have picked up, and you must deal with a crosswind landing upon the return. Rather than suffering a serious bout of indigestion thinking about the landing during the return flight, a little previous practice in the traffic pattern working on crosswind landings would have prevented the need for a shot of Pepto Bismol after landing. Worrying about landing every time you go out for a pleasure flight takes a lot of the pleasure out of a flight. Working on your proficiency a bit more can help make every flight pleasurable.

A few minutes of practice from time to time could save you from an embarrassing future landing incident.

DISTRACTIONS

Good, conscientious pilots will get and remain focused on each approach and landing. However, distractions do occur and disrupt that focus. For example, a passenger onboard becomes upset or, worse, ill. Digging through all the cockpit pockets looking for a sick sack while on the approach to land is a distraction. Another is encountering other air traffic while entering the traffic pattern. First, you're looking for the traffic, and then you're frustrated because the other pilot didn't see you and managed to cut directly in front of you while on the downwind leg. Frustration can take over and break your concentration on the approach and landing.

Another distraction is observing an aircraft waiting to take off at a nontowered airport that hasn't yet made a radio call or in any way indicated its immediate intentions. As you continue the final approach, the aircraft taxis into position for departure but then continues to sit on the runway. Go around or continue the approach? That is the immediate question further distracting you from the procedures you need to follow for a safe landing. When do you make the go-around decision? Have you even practiced a go-around in the last year? A few minutes of practice from time to time could save you from an embarrassing future landing incident.

INEXPERIENCE

Just because an FAA designated pilot examiner has signed and handed you your private pilot certificate doesn't qualify you as the "ace of the base." It's much like the issuance of your first driver's license, which was a document stating you were safe to occupy space on the road while continuing to learn!

As mentioned earlier in this article, you may have been given less than adequate crosswind landing training. Sure, it was enough to pass the checkride, but the training wasn't enough to go out and immediately attempt a landing in a 45-degree, 20-knot crosswind on your first flight after earning your certificate.

It's vital for your safety and the safety of your future passengers that you know, understand, and appreciate your flight limitations. Until you've completed more flight hours, your personal limitations may be a maximum 20-degree, 10-knot crosswind. However, your comfort and proficiency levels will increase to safely handle more challenging crosswinds with more experience. It's important that pilots understand their limitations and the limitations of the aircraft being flown.

When I bring in new tailwheel instructors, I strongly remind them that they need to know and understand their own limitations. Some days they may be uncomfortable with the conditions and need to reschedule an instructional flight while more experienced instructors continue to fly. As they gain experience and the flying season progresses, their safety parameters will expand. There is absolutely nothing wrong with saying "No flying today" due to the gusty crosswind. In fact, it's a sign that you know and accept your personal limitations and you're a safe, confident pilot.

LACKADAISICAL ATTITUDE

Are you content with your pilot skill level? Do you have a "that's good enough to get by" attitude? Good pilots never accept "good enough" but rather maintain a flight schedule to keep their flying skills at a proficient, safe level.

Great pilots not only maintain their flying skills but also challenge themselves to always get better. This is the attitude that we'd all like to attain, always striving to be a better pilot.

Good pilots will always have a respect for dealing with crosswinds. They will be thinking about the entire approach and crosswind landing as they near the destination airport. After turning onto the final approach and establishing the glide angle, speed, aileron, and rudder inputs, good pilots will already be thinking about the point at which to level off. As the back-pressure is applied, good pilots will be thinking about the flare while maintaining the necessary aileron and rudder inputs. When the flare is entered, good pilots will be thinking about and preparing for the touchdown, while also maintaining the needed control inputs. Once on the ground, good pilots remain focused on rolling out and applying the necessary controls, never taking their eyes off the runway.

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After slowing to a comfortable taxi speed, good pilots will continue with control inputs as needed for the surface wind conditions, taxi off the active runway, and only then take care of cockpit duties such as closing the carb heat, shutting down the transponder, and changing radio frequencies if needed.

Good pilots will remain focused and fly the airplane as needed until the prop stops in front of the hangar. Remaining focused and thinking ahead of the airplane will allow you to have many more safe, pleasurable flights with family and friends.

Fly safe and stay focused. *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.