



STEVE KROG

COMMENTARY / THE CLASSIC INSTRUCTOR



Approach and Landing

Accidents continue

BY STEVE KROG

I RECENTLY ATTENDED AN FAA safety seminar. The topic was “Stabilized Approaches and Landings.” Based on FAA statistics covering the state of Wisconsin, more than 40 percent of the reported incidents and accidents for fiscal year 2024 occurred during approach and landing. These numbers concur with those from surrounding states as well. On the one hand, I find this hard to believe. On the other, I think I understand and can speculate on a good reason.

Why are there issues with the approach and landing?

- Improper planning
- Incorrect pattern entry
- Erratic altitude, speed, and horizontal separation on the downwind leg
- The turn onto the base leg
- The turn onto the final approach leg
- Nonstabilized approach
- Not planning for the landing and rollout
- Establishing and maintaining proficiency

IMPROPER PLANNING

Prior to departure did you check for NOTAMs at your destination airport? Did you obtain a current weather forecast covering your departure, route, and arrival? Did you understand and consider the surface wind conditions at your destination? Lack of consideration for any of this data often leads to arrival confusion and a nonstabilized approach and landing.

INCORRECT PATTERN ENTRY

I spend a lot of time observing our students when entering and remaining in the traffic pattern. It’s not uncommon to have three or more student pilots in the pattern at the same time. We also attract a fair amount of transient traffic as well. Pilots operating from a towered airport and flying into a nontowered airport often become confused. They’re not quite sure how to properly and safely enter the traffic pattern.

Judging the speed and positions of the established pattern aircraft distracts the arriving pilot. I’ve monitored numerous radio

transmissions where the arriving pilot decides to depart the area due to their confusion with the traffic.

ERRATIC SPEED/ALTITUDE

Entering the pattern at an unfamiliar airport requires some thought and planning. However, if competing with several other aircraft in the pattern, it is easy to lose focus and overlook or forget required procedures for a safe approach and landing.

While attempting to visually spot other aircraft, it is easy to extend your downwind leg well beyond the desired flight path. Twisting and turning in the cockpit doesn't lend itself to establishing a steady, stable approach speed either.

One minor issue combined with one or two other minor issues creates a major issue, leading to a potentially unsafe situation. Time to add power, establish a go-around, and then announce your intentions to the other aircraft.

TURNING TO BASE

In addition to competing with other pattern traffic, there are two other potential complications leading to unstable approaches. While twisting and turning your head, attempting to make visual contact with the other pattern traffic, you have completely forgotten about the wind and what it is doing to your ground track.

If the wind was a quartering tailwind while flying the downwind leg, your groundspeed increased and your aircraft was pushed inward toward the runway. Not having compensated for either input, it is easy to overshoot the point at which you want to turn onto the base leg. The faster groundspeed will also impact the radius of the turn to base.

TURNING TO FINAL

After making the turn to final, you can visually see that you are nearly over the runway. Now you have three choices: Overshoot the runway and attempt to bring the aircraft back in line with the centerline, make a hard skidding turn in an attempt to align with the centerline, or go around.

The first option leads to an unstable, erratic approach. The second option frequently leads to a skidding turn and then a stall/spin, becoming an added statistic. Seriously, the only safe option you have if encountering this situation is to go around. Add power, reestablish full control of the aircraft, take a couple deep breaths, clear your mind, and set up for a more stable and controlled approach and landing.

UNSTABLE FINAL APPROACH

An unstable final approach will most often lead to an uncomfortable, unsafe landing. Think about it for a moment. If you had

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to add significant power while on final, you're obviously well below the desired glide path or you opted to fly the 747 5-mile final.

The added power prevents losing more altitude, but it also adds airspeed. If your desired final approach speed is 65 mph, but you pass over the runway threshold at 75 mph, you have a lot of excess energy that needs to be dissipated before making a safe touchdown. An increase of 10 mph above the desired approach speed adds approximately 1,000 feet before touching down. Short runways are not your friend in this situation. Airspeed keeps you in the air, and groundspeed gets you on the ground.

As a traffic pattern observer, it is easy to determine who flies off 5,000 feet or more of runway length. The approach is fast, the float time is long, and the touchdown is well down the runway. When transitioning to shorter runways, it usually results in two or three go-arounds before adapting to and setting up properly for landing at a runway of 2,000 feet.

PLANNING FOR THE LANDING AND ROLLOUT

The final approach has been made; now what? As an observer, I can attest that the primary single-engine fixed-gear aircraft are built tough. When conducting a flight review with a general aviation pilot, for example, I've experienced landings where I've said to myself that I would never rent an airplane to that individual. It seems as if there is little thought to leveling, flaring, and touching down. The touchdown is flat with all three wheels slamming onto the runway at once.

In other instances, I've observed landings from 10-15 feet above the runway. A flare is established, and then we wait until the aircraft drops out of the sky. No thought is given to the height above the runway and how to manage it, nor the direction the crosswind is blowing.

Tricycle gear pilots, unless regularly challenging themselves to fly in variable conditions, often become quite lax with control inputs after touching down. Again, I've observed pilots letting go of the yoke, reaching for the flap control, and having no consideration for what the surface wind is doing to our ground track. They will also begin riding the brakes hard in an attempt to make the first turnoff.

I learned to fly in tricycle aircraft and was taught to flare, control descent, touch down, and then hold the nose wheel off the runway for as long as possible under normal conditions. This saves on brakes, tires, and aircraft wear and tear. Once on the ground, the wings now become huge speed brakes if the nose is held off the ground, allowing the relative wind to provide brake action.

ESTABLISHING AND MAINTAINING PROFICIENCY

1. Lack of Proficiency — Not flying enough to get and remain proficient. Remember that meeting minimum requirements does not equal proficiency.

2. Lack of Preflight Planning — Not checking the weather before the flight or the NOTAMs for the destination airport. It's embarrassing to arrive at the intended destination only to find the airport is closed for construction.

3. Misunderstanding of Equipment or the Information — We're all fascinated by the new electronic gadgets in our aircraft, but do you know how to operate this equipment beyond just turning it

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on? Many of us do not! This leads to inattention and possibly venturing into airspace where one should not be.

4. Inaction to Abort and Perform a Go-Around — Admit it, the last time you aborted a takeoff or performed a go-around was the day you took and passed your private pilot checkride. Lackadaisical preflights and efforts to maintain proficiency create these situations, so we all should practice them from time to time to prevent becoming a statistic.

5. Inattention/Not Monitoring Airspeed — This doesn't mean continually staring at the airspeed indicator. Rather, stabilize your attitude and your airspeed will follow accordingly. Trim can be your friend. I tell my students to retrim every time a power change is made, especially in the pattern. A properly trimmed airplane will remain at the desired attitude while you are busy looking for traffic, conducting a prelanding checklist, or swatting at that hornet that just made a cockpit appearance.

IN SUMMARY

Why are these incidents happening? I believe there are several reasons. Beginning with post-COVID, many general aviation pilots took a year away from flight. Much like the unanticipated return to the air by the airlines, there was a robust return to the air by GA pilots. Has this resulted in the approach and landing accident/incident increase? Yes, somewhat.

Flight has piqued the interest of many, young and old, who pursued learning to fly. However, age and experience are not the primary reasons for the increase in approach and landing incidents either.

Research has shown that student pilots and individuals recently earning a private pilot certificate are not the cause as some might expect. In fact, their numbers are low. They diligently practice the flight training provided to them when flying.

Research has also shown that pilots who attend the various safety seminars offered by the FAA are seldom involved in the incident statistics either.

Most of these situations occur to individuals who fly infrequently, don't keep up on the changing regulations, and fly with little consideration for environmental or human factors that influence flight.

Flying is exhilarating, fun, and challenging. Do your part to maintain proficiency, leading to safe flight for all. *EAM*

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.