

Every pilot has his or her pet peeves. Every instructor has certain areas they emphasize. And they both seem to have an opinion about which attributes make one a *professional-minded* pilot.

From my very first flying lesson, one area that was stressed to me was centerline control. More specifically, a pilot's ability to keep the aircraft on or directly above the runway's centerline during takeoff or landing, regardless of crosswind or other variables. My first instructor Phil, was a recently retired Air Force B-52 Commander and T-37 spin instructor (while also an active GA pilot). Under his tutelage, I learned that any landing where a main wheel of the C-150 we were flying crossed the centerline, "did not count." His emphasis was never on expecting perfection. It was on expecting to see me control the airplane – to truly be the Pilot-In-Command by putting the airplane where I wanted it to be and not allowing outside factors to have a negative influence on that control. Additionally, I needed to be not so focused on getting a greaser landing that I forgot to apply proper crosswind correction or touch down off the centerline.

Eventually, we all get past those early learning curves. However, we should never "get past" routine training and practice. For even the best instruction will not stick without continual practice and vigilance. There are also elements of personal pride, self-critique and attention to detail. In other words, do you hold yourself to the same standards when you are solo, as you do when receiving instruction? Often the answer is "no" and therein lies the root of degrading performance. Peak performance is achieved through consistently holding ourselves to high standards, whether someone is watching or not. Centerline control is a prime example.

All of these lessons have always taken leading rolls in my instruction. In fact, I've been known to say things like, "That was a really good landing, but if it had been on the centerline it would have a *great* landing!" It's not a critical comment



Staying Centered

by Matt McDaniel

so much as it is a challenge for the next landing. If a pilot can consistently get a greaser landing, there is no reason they should not be able to do so on the centerline. It's really one of those nuances of piloting that speaks volumes to me, as an instructor. When centerline control is sacrificed in favor of crosswind correction and/or achieving that super-smooth landing, it can suggest a problem with multi-tasking. It can also suggest a simple lack of attention to detail, in that the pilot sees that the landing will be acceptably smooth and safe – so what if it is well off the centerline?

Obviously, there are safety aspects to striving for consistent centerline landings. It allows maximum margin for error in the event of unexpected control or mechanical problems. Additionally, it opens the use of countless additional airports that have narrower than typical runways.

Those two reasons alone should be enough to encourage you to sharpen your centerline-control skills.

The number of pilots who exhibit poor centerline control consistently surprises me. I've seen it at every level from private pilots flying planes they are already comfortable in, to professional pilots I've shared airliner and business jet cockpits with. In fact, as I write this, I've been flying with an airline pilot who consistently takes off and lands about five feet left of center. To me that says that he simply doesn't care, as I have no doubt that if he cared to, he could correct this issue with very little effort. That is an example of lack of attention to detail, or maybe just apathy. Generally such examples are more annoying than dangerous. The truly dangerous examples are those where the take-off or landing ends up off centerline due to uncorrected wind drift and/or over-focus on having a barely-felt liftoff or greaser touchdown.

I've been witness to many landings where the actual touchdown was silky smooth, at least initially. However, at the same time the plane was drifting sideways, the pitch was outside the ideal range, and/or the aircraft was not aligned longitudinally with the runway. So generally, what started as a beautiful touchdown quickly devolves into a side-loaded, hopping, squeaking "rollout." This sort of landing almost always starts off the centerline and quickly diverges even farther from center. Obviously, these are not examples of the safest procedure.

In fairness, I must give credit to the pilots I've flown with who demonstrate their dedication to attention to detail. Many consistently show me centered takeoffs and landings, with great crosswind corrections and smooth transitions. Often this is true even when I offer them the challenge of runways much narrower than they'd normally use – down to as narrow as 19 feet for some of my best students.

Another almost universal truth, in my experience, is that pilots tend to

land off centerline when transitioning to new aircraft types or when checking out in a different pilot seat within a given aircraft. In such cases, left-seat pilots tend to end up left of center, while right-seat pilots end up right of center. Again this is probably a multi-tasking issue, as the transitioning pilot is concentrating so hard on learning the handling characteristics and sight pictures of the new aircraft that other factors take a back seat. Consequently, wind correction and centerline control are generally the first things to slip.


So, how can we as pilots who strive to be the best we can be, work to achieve consistent centerline control?

- Practice consistently in a variety of wind conditions. No pilot ever improved at crosswind landings by avoiding crosswinds!
- Remember that your Cirrus has a prop and all the turning tendencies resulting from that. It seems so basic, but sloppy rudder work

can quickly ruin the most stabilized takeoff or landing.

- Remember that ailerons aid in crosswind correction and centerline control throughout both takeoff and landing rolls. Just because the plane is on the ground does not mean the laws of aerodynamics have been nullified. If the airspeed indicator is not at zero, you can bet the ailerons are capable of helping you (or hurting you, if you elect to not use or misuse them).
- Take pride in your performance and don't accept less than you know you are capable of. Situation permitting, if your last landing is not at the level you expect from yourself, make it your second-to-last landing by going around for another one.

- Challenge yourself. Grab your favorite instructor and head off to runways that are narrower than you normally use. Gradually, head to even narrower runways that leave you no choice but to have good centerline control. Obviously, this process should be gradual, purposeful and under instructional supervision.

We all hear the voices of past instructors echo in our head sometimes. Often for me, that is the voice of Phil saying, "Matt, I don't care if your landing is a greaser, as long as it's controlled." Then, he'd add with a laugh, "So, if your landing is basically a crash, the last part of the airplane to stop moving better stop on the centerline!" 

About the Author: *Matthew McDaniel is the owner of Progressive Aviation Services (www.progaviation.com). He has worked as a Cirrus-specific instructor for over four years. He also flies a Boeing 717 for a national airline and holds type-ratings to command three other airliners and several versions of the Cessna Citation business jet. He has well over 2,000 hours in the SR-2X, 3,700 hours instruction-given and 7,500 hours total. He can be reached at matt@progaviation.com or (414) 339-4990.*



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