



What's your Cirrus Taxi Style?

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Are your brakes being replaced every hundred hours?

Do your passengers hurry to put on their neck pillows to avoid whiplash while you taxi the airplane?

Many pilots transitioning to a Cirrus after being trained on a legacy training aircraft (e.g. Piper Warrior, Cessna 172) struggle a bit with the free casting nosewheel. Some folks take to it like a fish to water, but some struggle. To twist an idiom, you might say that sometimes we try to lead that horse to water, but it just won't fish.

When that pilot (horse) becomes a Cirrus owner, they wonder why their brake pads are being replaced at every inspection and what that "thunk thunk" noise is when they taxi.

Taxiing well and safely is a valuable skill in a Cirrus. Every pilot has their Cirrus taxiing style. Let's see if you, dear reader, can identify yours.



Thomas the Tank Driver – You pull your seat far forward and rest the middle of your feet on the tops of the pedals, and stab right or left as needed – *make the durn thing turn*. Leave the power up at 1500 RPM all the time. It works great!

Passengers hurry to install their neck pillows until you get them in the air. Your mechanic sends you the bill. And you think Cirrus should install more powerful brakes.

This isn't the right technique, Thomas, and you are risking a brake overheat among other expensive, bad outcomes. The line crew shouldn't be able to toast marshmallows on your melted wheel fairings.



Doris the Dizzy Dumpster Driver - Doris taxis carefully and at an appropriate speed but only moves the rudder a small amount, stabbing away at the brakes when it's time to turn. Works fine, but not a comfortable ride for the passengers and still hard on the brakes. Also hard on the large leg muscles when moving her feet up and down and pounding those brakes. After the flight, Doris has sore quadriceps and thinks she needs to spend more time at the gym.

Deflect the rudder fully before using the brakes, Doris, and think brake pressures, not pedal movement. If it looks like you are doing leg lifts over there in the left seat, you are working way too hard. Your passengers will still need their neck pillows early in the flight and your brake pads will not last long.



Mike the Zero Turn Mower - Mike likes to taxi briskly and is a specialist at spinning the airplane on one wheel when it's time to runup. Flat spot city!

Mike also likes to turn off on 90-degree taxiway turnoffs like they are a high-speed taxiway at JFK. The landing gear groans and the wheels slide as the airplane tries not to lift a wing while skidding off the runway.

As the popular song says, Mike – YouGottaNot. Slow down the airplane before turning. Think Minnesota in the wintertime. And keep those main wheels rolling when you turn into the wind. You will not lose control on a contaminated surface and your tires will last much longer.



Sam the Speedster - Sam is all about balancing speed and intense task focus. A Type A pilot, Sam taxis at 20 kts plus while running the Before Takeoff Checklist and copying an IFR clearance. It all works well until Sam drops his Apple Pencil and wraps the airplane around a taxi light. Lawn job!

Sam, multitasking in the airplane while taxiing is just plane (*sic*) dumb. Wait until you're stopped to run checklists and keep your ground speed below 15 kts, preferably closer to 10 kts until you get to the runup pad. The faster you taxi, the more the airplane will want to weathervane when that unexpected gust of wind hits the tail. YouGottaNot be a speedster!

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Perhaps you found an element or two of your own taxi technique above and chuckled a little. These examples will help you remember that handling an airplane well and safely on the ground is an important part of airmanship.

Here is what Cirrus says about taxiing in the POH (but I would suggest substituting “toe pressure” for “toe taps”):

When taxiing, directional control is accomplished with rudder deflection and intermittent braking (toe taps) as necessary. Use only as much power as is necessary to achieve forward movement. Deceleration or taxi speed control using brakes but without a reduction in power will result in increased brake temperature. Taxi over loose gravel at low engine speed to avoid damage to the propeller tips.

• **WARNING** • *Maximum continuous engine speed for taxiing is 1000 RPM on flat, smooth, hard surfaces. Power settings slightly above 1000 RPM are permissible to start motion, for turf, soft surfaces, and on inclines. Use minimum power to maintain taxi speed.*

If the 1000 RPM taxi power limit and proper braking procedures are not observed, the brake system may overheat and result in brake damage or brake fire.

Recommendations

- Try placing the balls of your feet in the middle of the rudder pedal and using full rudder deflection first, then use your only your ankle (not your leg muscles) to apply brake *pressure*, not movement, when the brakes are needed.
- Don't run checklists or copy clearances while moving on the taxiway.
- Keep your ground speed between 10 and 16 kts, lower speed is better in strong winds.
- Taxi on the centerline, not one foot to the left. Lean your head over the aircraft centerline to observe dead center.
- Use 1,000 RPM as a target for your taxi power setting.
- Position your controls to compensate for the wind.
- When the wind is blowing, roll the airplane nose into the wind for runup without stopping the inside wheel in the turn, and straighten the nose wheel before stopping.
- Slow to a fast walking speed before turning off the runway.
- Cross the hold short line before running your after landing flow/checklist. Looks like a flap, feels like a gear handle. Oops!

You may find that more than half of your taxi to the runway can be accomplished with rudder alone at 1,000 RPM. Think about balancing a glass of water on the bolster panel while taxiing. Are you going to get wet?

Try these ideas next time you fly. And remember YouGottaNot revert to the habits you should avoid.