

## TOUCH AND GO'S

Pilots seek to enhance their skills and proficiency levels in a variety of ways. One method that was used in the initial flight training environment was the "touch and go." At some flight schools the student rarely actually landed the aircraft, they just did touch and go's.

As pilots mature and move up to more complex equipment, my observation is that many attempt to replicate in the more complex and powerful airplane, those things they did in the training aircraft. (i.e. they revert to the way they were trained initially).

Sometimes what they learned in basic flight training may not be appropriate to the equipment they are now flying. Specifically, touch and go's in a complex high performance aircraft. There are issues to deal with that weren't in the equation in a simple Cessna 150 or 172, or Cherokee Archer. Landing gear extension and retraction, higher-powered engines with more torque and greater left turning tendencies, and greater flap effect are just a few.

What are we trying to accomplish by doing a touch and go in a high performance retractable gear airplane?

Are we trying to learn how to land the aircraft?

Are we trying to practice landings, or are we practicing go-arounds?

Neither? I guess neither, since a touch and go does not properly replicate either a landing or a go-around.

Landing a high performance complex airplane is really no different than landing in any other airplane, expect that there are more things for the pilot to do, especially if you really have no intention of landing. You are not mentally prepared to land the aircraft at all, as you have no intention of slowing and exiting the runway.

Downwind you set up the aircraft and perform your before landing check. "GUMP" Gas, undercarriage, mixture and prop. Undercarriage? Prop? We didn't find those in our initial training aircraft.

As a hypothetical, let's say the correct IAS numbers for landing your P-210 are 100 downwind, 90 on base, and 80 on final. If you can't get a handle on all the other factors during the landing phase, if you can hit those numbers, and do a smooth round-out (flare to some) after you enter ground effect, you should score a fine landing.

But, does a touch and go in a Cessna P/T-210 or a retractable 182 equate to practicing an actual landing? Even if you land and stop on the runway, reconfigure the aircraft, and then do a takeoff (which isn't a touch and go - but a stop and go) it is not a normal flight operation that you would do when going on an actual flight, because you won't take off half or three quarters of the way down the runway. By taking off half way down the runway you have removed valuable distance from your safety equation in the event of an engine anomaly on takeoff.

Few things are more different when flying a complex airplane than doing a landing and doing a touch and go. In one case (the touch and go) we have no intention of landing and stopping the aircraft. In the other, we intend to land the aircraft, taxi it off the runway and stop, versus the touch and go in which we get the mains on the ground and then start reconfiguring the moving aircraft while looking outside (and inside to see what we are grabbing) and trying to get it back into the air.

Look at what is required to take a P210 landing with full flaps (as it should), to do a touch and go. Watch the pilot try to hold the nose down as he applies full power to "go-around" during his touch and go while he still has his flaps down. Note the airplane turning left while still on the runway and shortly after liftoff. At the same time he is trying to get the airplane to lift off, he is reaching to position the flaps to takeoff setting, get the cowl doors open, get in nose down trim, etc. etc. Yup, a touch and go is just like a landing. That is so not true.

When we are really intending to land, we have a different mindset, and a whole different set of events to complete. We want to touch down on centerline, main wheels first, holding the nose wheel 3-5 inches off the runway for as long as we can, and after the airspeed has dropped below the white arc on the airspeed indicator (so that we don't smoke a tire), gently applying braking to slow us sufficiently to exit the runway without putting excessive side load on the landing gear, and allowing us to stop completely as soon as we cross the runway hold line. Then we use the

"clear of runway" section of our checklist to reconfigure the aircraft before calling ground for taxi clearance to our hangar.

Should we ever perform touch and go's in a high performance complex airplane as a method to teach someone to land the aircraft? Is this type of aircraft really landed until it is clear of the runway and stopped? Perhaps the only way to learn how to "land" these types of aircraft is to practice full stop landings. Land, clear the runway and stop.

One of the advantages of practicing full stop landings is that you practice flying the airplane with the mental intent of actually landing the aircraft and safely exiting the runway. That is the goal. The goal is not to get some wheel(s) on the ground and then send the aircraft back in the air again for another trip around the pattern. Full stop landings and taxi-backs also allow us to practice checklist discipline, using the checklist at every phase of flight, including after we clear the runway and stop, and again before we takeoff, whether or not another run-up is needed.

When we practice flying, we should practice what we are trying to accomplish. The goal in this case? A landing that culminates in a beautiful touchdown and a safe exit from the runway. A landing where the mains touch down with just a squeak off each tire as they touch down simultaneously and a gentle dip as the nose wheel touches down when full up elevator can no longer hold it clear of the runway, on centerline. Those kinds of landings receive favorable comments from the passengers every time, and they should. That is how a professional pilot lands. And I would hope that all private pilots strive to fly professionally.

If we are practicing go-arounds, let's do that. Let's practice them by initiating the go-around well before the runway, just before reaching the runway, just before the mains touch, just after the mains are on the ground, and after the aircraft has all three wheels on the ground. We intended to land, but we have to go-around for whatever reason, be it excessive crosswinds, the proverbial moose on the runway, not enough runway remaining to stop, or whatever else is thrown at us.

Performing touch and go's teach you how to do touch and go's, an event that rarely occurs in real life flying. Even if you do a thousand of them a year, they won't teach you how to land and exit the runway, handle that gusting crosswind as the aircraft slows, or how to perform a go-around under circumstances we normally experience in real life - when the go-

around is unexpected. The worst thing about touch and go's is that you do them with no intention of landing the aircraft in the first place! How can that be practicing landings?

If you want to practice landings, practice landings! Clear the runway and critique the landing yourself. Then go back and make the next one better!

Fly Safely,

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