

From The Right Seat (Private and Commercial Check Rides)

I'm frequently asked if I see any common errors when conducting various check rides and the answer is yes. And, while those listed below are the things I see most often, there are an infinite number of ways applicants have screwed up...some of them quite novel...which, unfortunately, result in unsatisfactory conclusions.

So, here we go...in no particular order:

Clearing Turns

The ACS requires them. Don't forget them. 'Nuff said.

Holding The Centerline

The ACS, when addressing the various landings for both Private and Commercial, include the phrase "with the airplane's longitudinal axis aligned with and over the runway centerline" or "over the runway center/landing path" or "aligned with the center of the runway". Regardless of the differences in these phrases, they all mean *land on the centerline!!*

Similar phrases are used to describe the various take-offs. It must be important, or it wouldn't be mentioned in ALL these tasks, so pay attention to the centerline...not just for take-off and landing, but for taxiing, too!!

I'll discuss more common errors with take offs and landings later in this document.

Steep Turns

The ACS say "approximately" $45^{\circ} \pm 5^{\circ}$ for Private, and "approximately" $50^{\circ} \pm 5^{\circ}$ for Commercial. While there is no definition for the word "approximately", it's safe to say that a 30-35° bank isn't even close to "approximately" 45° or 50° . And, while we appreciate your attempt to roll smoothly into the maneuver, it shouldn't take ½ way around to get to the desired bank angle! Typically, applicants wait too long to add back pressure in the left turn and add too much back pressure to soon in the right turn...and this is assuming standard side-by-side seating with the applicant in the left seat.

Slow Flight

When done properly, slow flight can often be done with your left foot *flat on the floor*. Hold pitch with the yoke/stick. For left turns, reduce the pressure on the right rudder. For right turns, add a little extra rudder pressure. Don't let the bank angle exceed about 10° . There's no need for more. It's a rudder maneuver, not an aileron maneuver.

Applicants often initially gain altitude when entering slow flight because they rush flap deployment. That makes the airplane balloon. Patience pays off here. Cool your jets and wait for the airplane to slow down some before adding flaps.

Stalls

- Power Off: The ACS says to establish a descent prior to executing the power off stall. When applying power during the recovery, add sufficient right rudder or you'll exceed the $\pm 10^{\circ}$ heading tolerance. *Establish a positive rate first* and then begin retracting flaps nice and easy. If a wing drops when the airplane stalls, resist the urge to pick it up with the aileron. Bad technique!! Rudder!
 - Note that the Private ACS requires full stall, while Commercial ACS says "first indication **OR** full stall as specified by the evaluator".
- Power On: The ACS says to use no less than 65% power. Full power is ok but not necessary. Most applicants struggle to maintain the $\pm 10^{\circ}$ heading tolerance due to insufficient right rudder. Don't be that applicant!

- Note that the Private ACS requires full stall, while Commercial ACS says “first indication **OR** full stall as specified by the evaluator”.
- Accelerated Stall (Commercial Only): This one is generally done pretty well by applicants, but some will establish the bank and then abruptly apply back pressure (you can interpret that to mean they jerk it!) to induce the 1st indication of the stall. Please don’t do that.

Emergency Procedures

Memory items are one thing and it’s fine to use a ‘flow’. **BUT**, both the Private and Commercial ACS specifically mention “Complete the appropriate check list” in IX: EMERGENCY OPERATIONS, Task A, B and C. Don’t forget to pick up that checklist!

Ground Reference Maneuvers

Pay attention to the wind direction. Not being aware of that is the most common error here. And that leads to:

- Turns Around A Point: Not maintaining a consistent distance from the selected point.
- S-Turns: Rolling out too soon or too late over the reference line
- Rectangular Pattern: Not maintaining a consistent distance from the reference line

Flight By Reference To Instruments

Banking too steeply in turns is very common. When assigned to climb to a specified altitude, applicants tend to reduce the power before, or while, pitching to level flight. Bad technique! Leave that power in as you level off and accelerate to normal cruise. When you reach normal cruise airspeed, bring power back to normal cruise power setting. Of course, you’ll be fine-tuning your trim as you accelerate so as not to gain or lose altitude.

Short Field Take-Offs and Landings

- Take Offs: Hold the centerline!
- Landings: For Private, you have your landing spot plus no more than 200 feet. For Commercial, it’s your spot plus no more than 100 feet. Standard runway centerline stripes are 120 feet long, with 80 feet in between the stripes. ***IF*** your airport has standard markings, then those ACS distance requirements are pretty easy to see. Whatever you do, don’t be short!! Your Examiner can easily see if you’re short. And, land on the centerline. Don’t forget to retract the flaps and announce “simulated heavy braking”.

Soft Field Take-Offs and Landings

- Take-Offs: Get the weight off the nose wheel. That doesn’t mean adding so much back pressure that you strike the tail! Hold the centerline. When you break ground, be careful about relaxing back pressure so soon that you sink back down to the runway.
- Landings: Carry just a little power through the round-out, flare and touchdown. Throttle idle when the mains touch and hold the nose wheel off for as long as you can. Oh, and hold that centerline!

COMMERCIAL-SPECIFIC MANUEVERS

Chandelles

Recovery from the left Chandelle is largely accomplished by adding right rudder during the gradual roll-out. Recovery from the right Chandelle is mostly accomplished by using aileron to roll out while holding enough right rudder for coordinated flight. Common mistakes are banking and/or pitching up too aggressively, or not aggressively enough early in the maneuver, and lowering the nose prior to reaching the 180° point of the maneuver. Improper rudder usage is also a common problem.

Lazy Eights

Not pitching up enough at the 1st 45° point is very common. If you don't pitch up enough, you don't lose enough airspeed and the airplane will not slice through the 90° point on its own without some 'help'. All too often, applicants 'drive' the airplane through the 1st half of the maneuver. Start with no more than about 10° of bank, pitch up to within 5-10 knots of stalling speed at the 1st 45° point, and then let the airplane slice through the 90° on its own. Yes, it will do that if you set up properly.

At the 135° point, begin a SLOW return to level flight, ending up +/- 10° and +/-100 feet of your starting point. Improper rudder input is a common issue here, too.

Eights on Pylons

Common errors here include selecting pylons that are too far apart or, in some cases, too close together. Some applicants find it easier to start the maneuver with the 1st pylon on the RIGHT wing. That's fine. Nothing in the ACS says you must start with a left turn.

Make sure you know where the wind is coming from and ANTICIPATE how it will affect you as you circle the pylons. Failure to properly anticipate what's coming results in jerky control inputs where the applicant is almost constantly behind the airplane. A well-done Lazy 8 means the applicant is ahead of the airplane. Improper rudder inputs...using the rudder to keep the wing on the point...is a very common error here. Lastly, this is a fixed-power maneuver. Set the power and don't touch the throttle until the maneuver is done!

Steep Spirals

To me, this is one of the most challenging of the Commercial maneuvers. To accomplish it successfully, you're starting at a relatively high altitude... often 3000 or 4000 feet AGL in order to finish no lower than 1500' AGL. Selecting the point around which the applicant will be 'spiraling' is a very common error. That point must appear to be almost directly below the airplane otherwise, after starting the maneuver, it'll quickly become readily apparent that the point is too far away.

Here's a handy trick. Instead of picking a 'point', pick a stretch of road, or a tree line...something that could simulate a runway. Identify a mid-point along this imaginary runway. Begin the maneuver on the 'downwind', then turning 'base', turning 'upwind', turning 'crosswind', 'downwind', 'base', etc., as you descend. It's much easier if you think about the maneuver as a descending traffic pattern and the results will be a relatively constant distance from the point as you descend.

Power Off 180

This is a 'one and done' maneuver. You must get it right the 1st time. No go-arounds UNLESS continuing will create an unsafe condition. Unsafe conditions could include a flock of birds in your way, unexpected turbulence, a runway incursion by an airplane, car, animal...in other words, the landing area becomes unsafe. These kinds of things are excusable and would allow for another attempt.

However, if the applicant's actions, or lack thereof, are the cause of the go-around, then the maneuver will be unsatisfactory, and grounds for a disapproval. The ACS says the applicant must land on the selected point plus no more than 200 feet. You can use any tool at your disposal; flaps, S-turns on final, slips, etc. DON'T BE SHORT and hold that centerline!

Conclusion:

This is not an exhaustive list of all the errors we see, but these are the most common and are easily correctible. And remember, perfection is NOT the standard. Really, it's not. But you must be safe and use good judgement. You WILL make mistakes during the flight. I promise you'll make mistakes. Acknowledge them and fix them and chances are very good that you'll end up with that shiny new temporary certificate in your pocket!!

