Private Check-Ride Itinerary

What to expect on your private check-ride

Like most flight exam check-rides, the *Private Pilot Practical Test* is divided into two parts: an oral exam and a flight exam. The oral exam usually lasts about two hours, although it can be longer or shorter depending on how well the examiner feels that the student is prepared.

ORAL EXAM

Certificates and Documents

Pilot

Examiners typically focus on the requirements to obtain a Private Pilot Certificate and its privileges, limitations, endorsements and currency requirements.

Aircraft

Required aircraft documents (AROW) and required aircraft inspections and maintenance. Usually, it is best to present the required inspections to the examiner by confirming their completion in the aircraft maintenance logbook.

Weather Information

- Know your METARs, SIGMETs, and PIREPs.
- Demonstrate that you are capable of making solid "go / no-go" decision. Remember, a conservative decision is always best. After all, "there are old pilots, and there are bold pilots, but there are no old, bold pilots."

Cross-Country Flight Planning

- Examiners will ask students to plan a cross country over a specified route prior to the check-ride. This is your chance to make a good impression. A well-organized and thought-out cross-country plan will represent you strongly. Know your route, the airspace and airports along the route, and what some of the possible difficulties that the flight may present and what alternatives you can take. Always have an out!
- Discussing the cross country flight plan is often a way that examiners will move to the topic of the National Airspace system – usually by pointing out different airspaces or areas on the chart.
- Remember that the actual navigation log is a "dead reckoning" plan to help you estimate the total flight time and fuel consumption. With this dead reckoning log, you also make useful notes that will help you in pilotage and radio navigation.

National Airspace System

- Know the various classes of airspace. It is easiest if you have focused on the "eight types of Class E."
- Know the basic VFR weather minimums and cloud clearances for ALL the types of airspace. Recite the often over-looked exceptions, such as you may have only 1 statute mile visibility and cloud clearance at night if in Class G and within 1⁄2 mile of the airport while in the traffic pattern.
- Know the special use airspace, particularly TFRs. Know when and how to check for new TFRs. Make sure they are plotted on your charts.

Performance and Limitations

- The examiner will ask you to complete a weight and balance calculation based on your flight, prior to the check-ride. Completing takeoff and landing distance calculations and an additional weight and balance for your arrival will go a long way in scoring bonus points.
- The examiner may have you work through a performance calculation or weight and balance problem. This is where it pays to be familiar with chapters 5 and 6 of your aircraft's POH.
- You will also likely discuss density altitude and its effects on aircraft performance. Sound "go / no-go" decisions should always be made.
- The effects of overloading and CG location may also be discussed. Explain clearly the benefits and negatives of BOTH forward CG and aft CG.
- The examiner may begin quizzing you on the various aircraft V-speeds. This is your chance to make a great impression by standing up to the board or taking a piece of paper and drawing the airspeed indicator and its markings and then labeling all of the V-speeds. This may sound overly studious but some examiners actually require it. Regardless, it is of critical importance to *KNOW your V-speeds*!

Operation of Systems

- Discuss the various systems of the aircraft.
- Aerodynamic fundamentals (e.g. "What causes an aircraft to turn?" and "What are flaps for?"). The questions will probably include left turning tendencies, adverse yaw, ground effect, angle of attack, stalls, and spins.

Minimum Equipment Lists

- Know what they are, the advantages and disadvantages and how to use one. You are always either operating under an MEL or the equipment required by Part 91. Remember that MELs must be approved by the FAA for each specific airplane.
- Knowing the categories of MEL items (A, B, C, and D) is a bonus.

Aeromedical Factors

- Know the effects of alcohol on flying and the restriction.
- Know the effects of over-the-counter drugs and restrictions.
- The effects of nitrogen excess from scuba diving on persons in flight.
- Symptoms, causes and effects of at least three of the following:
  - Hypoxia (both hypoxic and anemic)
  - Hyperventilation
  - Middle ear and sinus problems
  - Spatial disorientation
  - Motion sickness
  - Carbon monoxide poisoning
  - Stress and fatigue

INTERIM BREAK AND PREFLIGHT

After completing the oral portion of the practical test, there is usually a brief break period. Usually, the applicant will begin his / her preflight inspection at this time while the examiner grabs a coffee. Be sure to do a careful preflight and to organize the cockpit well for your flight. The first portion of your Private Pilot Check-ride will probably be cross country procedures, so ensure that you have your plotter, flight plan, E6B, and charts organized and readily accessible.

FLIGHT EXAM

During the flight exam portion of the practical test, it is important to remember a few basic principles during the flight:

- Good communication – Be sure to explain what you are doing, talk through checklists and flow-checks, and to keep the examiner in the loop. You ought to do this with passengers too because it keeps them informed on what's going on. Even by yourself, it is a way to keep sharp on your procedures. If you need clarification of something said by either the examiner or air traffic control, make sure to ask immediately!
- Checklists – Use your checklists and be familiar with all of the items on the checklist. This is not the time to "impress" the examiner with your memorization of the checklist. Some items, such as the before landing check and the initial reaction after an engine failure, are completed by using "flow checks." You should confirm the correct actions of your flow checks with the checklist as soon as time allows. When taxing on the ground, always use your checklist.
- Maneuver Set-Up – Do not rush the performance of a maneuver. Set up correctly with the AAACT procedure before each new maneuver. If you screw up, try again! Don't try to hide your mistakes or try to continue with a maneuver that has gone bad. Most examiners allow you to make a couple of errors – just stop the maneuver and say that you want to try it again. You haven't failed your check-ride until you have a failure slip in your hand and the examiner is getting in his/her car driving away.
- Other areas that an examiner is looking for you to excel in include:
  - Mastery of the aircraft.
  - Proficiency and competency within the approved PTS. Bring a copy to the exam and hand it to the check pilot.
  - Sound judgment.
  - Collision avoidance procedures.
  - Single-pilot competency (the examiner is your passenger).
- Remember you are passing the test until the examiner has to take the controls. If you fail to complete a required maneuver within standards you will probably be allowed to continue, receive more training, and be re-examined on the failed part(s).

Prior to Takeoff

The flight exam will begin with the examiner asking a couple of basic questions about the preflight and the aircraft. This is when you should know how much usable fuel you have, the minimum and maximum oil, where the AROW documents are located. Also, know the aircraft systems such as which flight controls have counter weights and what are they for, where the static sources are located, what the drain hole is for on the pitot tube and where is the vacuum filter and intake for the vacuum system. Some examiners even want to know how much air pressure is in the tires (it is important in determining your airplane's hydroplaning speed).

Once you have both strapped in, remember that the examiner is your passenger. Brief him / her as you would a passenger, explaining how to open and close the door, not to touch the controls (although he / she can if necessary – obviously, it's all just pretend). Explain how to look for traffic and point it out using the clock system and to limit talking during operations in the vicinity of airports. Also, don't forget to tell the examiner to keep their seatbelt on (and visually check to make sure that both the seatbelt and door are secure) and where the air sick bags are located, and what to do if air sick.

Ground operations
Use appropriate checklists and complete all operations efficiently and professionally.

- Complete the normal engine start-up.
- Get ATIS and set altimeter & heading indicator.
- Obtain taxi clearance.
- Check compass, heading indicator, and turn coordinator during taxi.
- Complete run-up check.

Takeoff
Prior to the takeoff, determine if you will be performing a short or soft field takeoff and brief the examiner on the procedure and departure procedure as appropriate. Make sure that your charts and supplies are in place.

- Review & brief a short or soft field takeoff, as specified by the examiner.
- Complete all aircraft settings, such as flaps, prior to tower contact.
- Contact tower and respond/taxi for takeoff as directed.
- LIGHTS, CAMERA, ACTION.
- Make sure you call "engine instruments in the green, static power set, airspeed alive" because this is your opportunity to assess these items and make a "go / no-go" decision.
- Start Time – you need it for cross country procedures.

Departure
Perform the appropriate departure (probably Vashon). Be sure to know your altitudes here!!! Use the VOR to confirm.

Cross Country Procedures
The examiner will likely have you plan a cross country to either Hoquiam or Astoria. Your check points should be spaced between 10 to 20 NM. You should always be able to see your next checkpoint. So, on poorer weather days or at lower altitudes, your check points need to be even closer.

Make sure that you are keeping track of the time and that you fly the course that you set in your flight plan. Of course, the actual wind may be somewhat different that what was forecast.

Your first checkpoint will likely be North Vashon Island. This is where you would contact Seattle Approach for flight following but you don't actually do it on the check-ride. Just let the examiner know that is what you would do. How do you know the correct frequency? A good way is to ask Boeing Tower, but it is usually 120.1.

Your second checkpoint will be somewhere around the Carr Inlet. Upon reaching your second checkpoint, the examiner will ask you to divert to either Tacoma or Bremerton (usually Tacoma).

Diversion

The diversion seems simple enough, but many students have difficult with this part. The key is to have practiced diversions before the check-ride, both in your mind and in flight. The difficulty with a diversion is that no matter how easy it is to practice on the ground, in flight you have to fly the airplane and contend with turbulence, looking for traffic, passengers, etc.

To have a successful diversion, follow these steps:

- Find your current location and mark it on the chart (you need to know where you are to figure out how to get to where you are going).
- Start your flight timer (if it takes awhile to calculate the diversion, you need to account for this to determine where you have moved in relation to your original point).
- Find the airport you are going to and measure the TRUE COURSE.
- Minus 20 degrees (a rough estimate for variation in the Seattle area) from the true course
- Turn to this MAGNETIC HEADING.
- Measure the distance from the starting point to the diversion airport.
- Estimate enroute time and fuel burn.
- Look up the airport information (this should already be on your flight plan as an alternate). Include runway numbers, traffic pattern turns, pattern altitude, ATIS, tower, and ground.
- Get the ATIS.
- Call tower or CTAF at least 10 miles out.
- Enter the pattern appropriately.
- Brief the approach and landing.
- Continue approach to landing or when told to break off.

For longer diversions, it may be necessary to basically plan a new cross country in flight. You must account for wind and its effect on your ground speed, fuel onboard and fuel consumption.

The common errors for students are:

- Failure to maintain control of the aircraft within limits (altitude +/– 200 ft, heading +/– 15°). Remember, you have to FLY THE AIRPLANE above all else!
- Sloppy or incorrect set-up for approach to the airport. You need to know what the runway numbers are, how to enter the pattern, etc. before you get too close to the airport!

Airport Landings

Once you arrive at the diversion airport, you will make one or two circuits in the pattern to perform short and soft field landings and takeoffs. Likely, on one of these circuits the examiner will pull the power back and ask you to make a power-off glide to landing. Usually, the examiner will specify that this landing be made without flaps.

Make sure that you know where you are aiming for on short field landings. Good communication is important to avoid a misunderstanding. You may not land before the point or more than 200 feet after it. If you are not going to make it, GO AROUND!!! You are simulating a real-world situation. You wouldn't land before the short runway and you wouldn't land well down the runway either. So, don't do it on your check-ride. Going around is OKAY!

On the power-off landing, as long as you do not put the flaps down you can pretty much fly a normal pattern (maybe just a bit closer in). You may not have the power you have in a normal situation but you also won't have the high drag of the flaps. It is always better to come in a bit high and then slip if necessary. Remember an approach that is too high will probably take you well past your intended touchdown point.

Performance Maneuvers

After completing your landings, you will likely depart to the northwest of Tacoma (southeast of Bremerton) to complete your "air work." You will climb up to 2,500 to 3,500 feet and perform slow flight, steep turns, and stalls.

Make sure that you complete the AAACT maneuver set-up before each set of maneuvers. Slow flight in the 152 is easy so just focus on getting your set-up and transition in and out of slow flight. Remember to look for traffic during the maneuvers. You will likely do a few turns while in slow flight then be asked to go straight into a power-off stall. After you recover, climb back up to your starting altitude. BE SURE NOT TO EXCEED Vy. You are not only trying to ensure the minimum loss of altitude but you are also trying to climb back up to your starting altitude as quickly as possible. Flying faster than Vy is a waste of engine power.

Perform stalls nice and smooth – no one wants a roller-coaster ride. Stay coordinated and remember to look outside. If you are yawing away from your visual reference, then add a little bit of rudder to stay on heading. On the recovery do not let the nose drop much below the horizon – this is one of the examiner's pet peeves. After the power-off stall you will do a power-on stall. Complete an AAACT maneuver set-up and complete the power-on stall. Again, on the recovery stay coordinated and on heading, don't let the nose drop below the horizon, and don't exceed Vy on your way back up to the starting altitude.

After the power-off stall, you will complete two steep turns – one left and one right. Make sure you do the AAACT first then complete the turns. On the private check-ride the turns do not have to be immediately one after the other but on the commercial check-ride they do. You may opt to do it this way if you would like.

Pick a reference point on the horizon and begin the maneuver. Add about 100 RPM as you bank the airplane. Once you pass 30 degrees, start to add a little back-pressure. Remember to spend most of your time looking outside at the horizon and to watch for traffic. Anticipate the rollout by looking for your reference point and leading by half the bank angle (in this case, 22.5°). However, this really depends on how aggressively you roll out of steep turns. Be sure to take away your extra RPM and back-pressure as the turn is completed.

Common errors are:

- Loosing too much altitude in the turn. Remember to pull back or release back-pressure as needed to stay on your target altitude.
- Overshooting the target heading.
- Gaining altitude after rolling out or while rolling from left turn to right turn.
- Excessive speed loss.

Remember the maneuver is not over until you are back in normal cruise flight.

Unusual Attitudes
The hood work on a private check-ride is relatively brief. It mainly consists of a couple of unusual attitudes a nose-up climbing turn and a nose-down descending spiral. Make quick and appropriate correction of each situation. After the unusual attitude, be sure to describe what attitude you were in and how you corrected for it.

Navigation Aids
Sometimes the examiner will have you do this under the hood. You will tune in the Seattle (or assigned) VOR and identify it. Yes, IDENTIFY IT!!!! That means listening to the Morse code and ensuring that you have the correct VOR by referencing the chart. Some students are failed on this task. After all, tracking the wrong VOR would not be a good thing in a real-world situation. Such confusions have been the end of many pilots and airline passengers.

You will then be asked to state which radial you are on. Remember, a radial is a magnetic bearing FROM a VOR so, it's easiest to just center the needle with a "From." If s/he asks you to track to the VOR, spin the OBS to the reciprocal heading (centered with a "To" indication) and turn to that heading. If you want to fly away from a VOR, then fly outbound with a "From" indication. To avoid reverse sensing remember that your OBS setting and your MAGNETIC HEADING should ALWAYS MATCH (within a few degrees for wind correction and instrument error).

Engine-Out
The next thing the examiner will do is pull the throttle to idle. BEST GLIDE SPEED, BEST FIELD and fly the airplane. Then do your engine-out flow-check (same one as your before landing check).

Then USE YOUR CHECKLIST to confirm that all items have been tried. Then you would talk your examiner through the communication procedures and forced landing checklist. Some examiners actually want to hear what you would say on the radio (simulate it obviously) in such a situation. A "Mayday" call includes who you are, where you are, the problem/situation, what your intentions are/requests, how many passengers on board, and how much fuel you have.

Make sure that you fly the airplane and continue to glide efficiently towards your selected field (or circling it to enter the downwind pattern spot if you are already over it).

Remember that you are PIC on your check-ride and if you decide to call off the maneuver once you get down to 500 AGL, that's what goes. The number one cause of accidents while training or during check-rides is simulating an engine failure with a perfectly good engine. Aircraft engines don't like to run at idle while being drug slowly through ice-cold air and they may not necessarily be kind to you when you go to put the power back in. Always VERIFY the engine every 30 seconds (briefly).

Ground Reference
Now that you have gotten down to 1000 AGL from the glide, it's time for some ground reference maneuvers. The examiner will likely have you do either one S-Turn or one Turn-Around-A-Point. Make sure that you clearly understand the location of the "target point." Complete the

AAACT. Pay special attention to the "Emergency Field" portion of this because you are required to have an emergency field location available at all times during ground reference maneuvers. Make sure that you tell the examiner where your field is located.

The key to ground reference maneuvers is to stay within the required parameters that is, to maintain altitude +/– 100 feet and airspeed +/– 10 knots. This is probably the most critical part of the maneuver. The other key is to explain what you are doing while you are performing the maneuver. "I am on the downwind, so I need a steeper bank," "now I am on the upwind, so I am using a shallower bank." As with all maneuvers, if a ground reference maneuver does not go well end it immediately and state that you would like to try it again.

Going Back Home

"Take me back to Boeing." You want to hear that after you have done all of the maneuvers, not 20 minutes into your check-ride. Sometimes the examiner will forget or choose not to complete all the maneuvers that you thought you would do. It is not necessary to remind him/her unless you were just itching to demonstrate your skills on that particular maneuver.

Be sure to stick to procedure on the way back. Get the ATIS (write it down), do your flow-checks, make your radio calls. You should relax, because you likely passed but don't get complacent – you still have a lot of work to do!

Now is a time you may ask the examiner a few questions about her/his background, flying techniques, etc. However, it is probably not the time to ask "so, I can't remember, is it okay to fly for hire with a private?" or "I can fly IFR with just a private license as long as I am in Class G airspace, right?" Save those questions for your instructor and, of course, remember to always ask an instructor or experienced pilot any time you are unsure of something.

If you haven't made one of the landings (power-off, short-field, soft-field) you may likely be asked to do it as you land at your home airport. However, if the examiner feels pretty confident in how you did some don't bother. If they do ask you to do it, it's your chance to give a last good impression so show her/him one of your best landings.

Congratulations!

As you park the airplane on the ramp and shut-down remember to execute the final checklists. The examiner will sign your logbook and then have you sign the copies of your certificate. "Congratulations, you are now a Private Pilot" s/he will say as he hands you your temporary license.

Remember, it is a license to learn. You don't know everything and you never will. Flying conservatively and always with careful planning and preparation is the best way to ensure many happy flying hours.

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