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What the Examiner Sees – The “New” Private Pilot PTS

by Larry Bothe, 5/26/2014

The current Practical Test Standards (PTS) for Private Pilot were effective June 1st of 2012. They were first published 6 months before that, in November of 2011, so that CFIs could become familiar and hit the ground running on June 1st. You would think that with 6 months advance notice and 2 years of being the “law of the land” the not-so-new PTS would by now be ingrained in every CFI's mind and we would all be teaching to those (minimum) standards. I'm sorry to report that such is not the case. After 2 full years I continue to encounter applicants who have never heard of one or more of the new standards, which is what has caused me to write this seemingly belated article.

Before I go any further, I will admit up front that submitting an article on this subject to the SAFE Resource Center is probably "preaching to the choir." Flight instructors who belong to professional organizations such as SAFE and NAFI are the ones who are concerned about being up-to-date and doing things correctly. For example, NAFI did a good job of notifying its members of the changes in the new PTS early on. They created a copy of the entire new PTS with all the changes highlighted in red. I still have the pdf-format version of that file on my hard drive to send out to CFIs who ask me what changes were made. There are a lot of them, mostly additions.

Why is it then that I keep encountering Private Pilot applicants who have not been trained in the things that were added to the new PTS? One reason is because, unfortunately, less than 10% of all CFIs belong to a professional organization dedicated to their activity. It is my hope that after you read this article you will talk to your colleagues who do not belong to SAFE or NAFI and suggest that they join. It is very difficult for CFIs to keep up with all the changes that come from the FAA, and to understand what those changes mean. These professional organizations provide that service, among many other benefits.

After every checkride, regardless of the outcome, I try to talk to the recommending CFI. We can learn something from every checkride, even the very best ones. None are perfect. When an applicant doesn't know about one of the new PTS requirements I ask the instructor why not. If the CFI taught it but the student/applicant forgot, I can live with that. But when I get an answer like, “Oh,

there's a new PTS?", I'm upset. Or they know there is a new PTS but somehow believe that the changes are so insignificant that using the old PTS will be close enough. How can a CFI hold him-or-herself out to offer flight instruction and not know the current requirements for the certificate they are teaching? How cavalier can you be? And don't forget the changes. There have been 6 changes to the new Private PTS since it was first published, the most recent of which is dated 02/28/2014. You have to make a real effort to keep up with this material. The most up-to-date PTS information is available at FAA.gov, for free. Here's the whole URL: http://www.faa.gov/training_testing/testing/test_standards/.

Here is a listing of the significant items that were added in the new Private PTS that are typically tested during the oral portion of a checkride.

- Sigmets & Airmets: That's right, Sigmets and Airmets, even though they have been around forever, were not mentioned in the old PTS, but they are now. Applicants should know the basic difference between a Sigmet and an Airmet, and what kind of information is contained in each.
- Windshear Reports: Note that the requirement is for the applicant to know about windshear *reports*, not just what is windshear. The rote definition of windshear is not sufficient to fulfill this requirement. Applicants need to know that windshear reports can come from Approach Control, Tower or ATIS, based on PIREPs or windshear sensors (multiple anemometers on the airport). Windshear is now also forecasted at the end of a TAF when appropriate.
- Icing and freezing level information: We used to reserve icing questions for Instrument applicants, but now it is specifically called out in the Private PTS. Applicants should know that it is possible to get ice on a plane while flying along in legal VFR weather. How? By flying in cold air beneath the clouds where a temperature inversion is present. Warm rain falling from above gets into the colder (sub-freezing) air below and becomes super-cooled (remains in a liquid state even though the water is cold enough to freeze). When the hapless VFR pilot flies into the super-cooled water droplets and disturbs them they freeze instantly, forming clear ice. My first-ever declared emergency was due to that very phenomenon. Other icing information comes from Area Forecasts, PIREPs, and indirectly from Winds Aloft (freezing level).
- NOTAMs: Private applicants are now specifically expected to have any NOTAMs for their departure and destination airports.
- Somatogravic and black hole illusions: Be honest; do you know what a somatogravic illusion really is? I didn't. It's the illusion that in an abrupt acceleration you feel like the nose is pitching up, when it really isn't. That in turn may cause a pilot to push forward on the yoke and thus fly into the ground. The reverse is true in a deceleration. You feel like the aircraft pitched down and you might pull back on the yoke, inducing a stall. I have never experienced either of those illusions, but a night-flight problem I have

had to deal with is taking off on an overcast night toward an area with no ground lights. As the runway lights pass behind the airplane it looks like somebody suddenly painted the windshield black. It's instant IFR, whether you have had training or not. You have to climb on the artificial horizon for several minutes until you get high enough to see some distant ground lights and your mind creates a visual horizon for you. Try runway 5 at Mt. Pocono, PA some overcast night if you would like to experience this for yourself.

- Special Flight Rules Areas: Not to be confused with Special Use Airspace. Special Flight Rules Areas have been around for several years and are now in the Private Pilot PTS. SFRAs are those areas in the US which are so complicated, due to security considerations and/or how they are used, that special training is required to fly in them. The best example is the area around greater Washington, DC. If a pilot wishes to fly in there, as depicted on the Washington sectional chart, he/she must take an online course (on the AOPA website, membership not required), take and pass a test, and print a certificate of completion that must be carried with you in the plane. Woe be to the pilot who has any sort of problem (with the FAA) in and around Washington and can't show that he has completed the online course. Another such area is out west around the Grand Canyon.
- Emergency equipment and survival gear: This one made it into the Private Pilot PTS via the Sport PTS, where it has existed since 2004. If you are going to fly in (pick one) the desert, mountains, snow, what emergency equipment or survival gear would you carry with you? Even though it's right there in the PTS I find that most applicants have never considered it, and their instructors have not mentioned it. When pressed, most applicants can come up with water, the means to start a fire, some food, and warm clothing if I pick snowy, cold weather. But how about a signal mirror (old CD?), compass, knife, paperback book on survival, space blanket, fish line and hooks; all small things that could really contribute to your survival in case of a real emergency. I have them all, and more, in my old Boy Scout knapsack under the rear seat of my airplane.
- Lost Procedures: If you get lost, how do you find yourself? With GPS we know where we are all the time. But what if that high-tech stuff goes dark, and suddenly all the terrain below begins to look the same? How will you figure out where you are? The first thing to do is climb, if you are less than several thousand feet above the ground. You'll be able to see better and hopefully identify some unique terrain feature that you can also find on your chart. Can you locate a town? If so, descend and read the name of the town off the water tower; then find the town on the chart. How about help from the outside world (ATC)? Who do you call? Some facility with radar, so they can "see" you. Who has radar? Approach Control or Center, not Tower. (However, note that some towers, including those at class D airports, do have a radar feed from a local TRACON to use for reference and can assist pilots.) What's the frequency? It's in the white box near Class C airspace. If you're in the middle of nowhere call on 121.5.

- Airport Diagrams: These days don't even think about letting your student go to a checkride without airport diagrams for the airport where the checkride is taking place and for the destination airport in the preplanned cross-country. And the applicant better know about any "hot spots" (places of potential collision) on those diagrams.
- Airport Signs & Markings: The FAA now encourages DPEs to test this area using flash cards. The flash cards are available from AOPA for free; just call and ask. You can print them off the website, but then they will be on some flimsy paper. The ones AOPA sends out are on substantial card stock. Get a set.
- Crosswind Component: What is the maximum demonstrated crosswind for the airplane you brought for the test? Since crosswinds are rarely directly across the runway, at 90°, how will you determine how much of a wind is crosswind and how much is headwind? If the airplane is at all new there will be a crosswind component chart in the POH. Your student must know how to use it. No chart in the POH? Download one from the Internet.

All of the subjects listed above are usually tested during the oral portion of the checkride. You wanted to know why the oral part takes so long these days? Now you know. Nothing was removed from the PTS in the June 2012 revision - just a whole lot of things added. Besides the additions in the oral part, there are two new flight maneuvers.

- Emergency Descent: Not to be confused with simulated engine failure. The requirement is to know the procedure to get the airplane on the ground really fast if you have some bad event at altitude, like an in-flight fire or a passenger has a heart attack. What seems to work best is to retard the throttle to idle, slow the plane to flap speed, deploy all the flaps, roll into a 45° left bank, and pitch for the top-of-the-white-arc airspeed. That results in a high rate of descent without doing a screaming dive. The high-speed dive doesn't work because it isn't safe if there is any turbulence, and you arrive at the ground going 2 or 3 times your normal approach speed. There is no way you can land.
- Magnetic Compass Turns: As of 05/30/2013, Change 5, the PTS requirement is "Demonstrates use of magnetic direction indicator in navigation, to include turns to new headings." The best way to turn to a new heading using only the magnetic compass is to do a timed turn, at 3° per second. Note that this isn't an instrument thing; the applicant is not wearing a view-limiting device. Rather, it is just simulating the failure of the DG. The applicant can see outside just fine. If the checkride is being conducted in the flatlands of the Midwest the applicant should be aware that most roads and farmers' fields are laid out north-south or east-west. That makes turns to a cardinal heading a cinch. The student should also know that there are no magnetic dip errors on headings of East or West, so turns to those headings, or even 10° either side of them, can be made directly on the wet

compass, without timing. Just turn to the desired East or West heading, and roll out. You've got it.

If you stayed with me this long, by now you should be convinced that the changes in the "new" Private Pilot Practical Test Standards dated June 1st, 2012 are both numerous and substantial. The Introduction section of the PTS states that an applicant doesn't fail unless he "consistently exceeds" the standards set forth in the PTS. That means DPEs don't fail applicants for some small errors or gaps in their knowledge along the way. However, if an applicant has never heard of, doesn't know, or can't do several of the new things explained in this article then he or she has stepped over the line into *consistently exceeding*, and will end up with a Notice of Disapproval. Please use the new PTS when teaching your students, and encourage your colleagues to do the same. Every CFI should belong to one of the professional associations like SAFE and NAFI.

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