# Commercial ASEL Training and Checkride

### Overview

Pilot: Daniel Switkin, 400 hours, instrument and tailwheel

CFIs: [Wes Irish](http://www.coyotehillconsulting.com/people/wesley/cfi-home.html) and Dan Tzur at KPAO

DPE: [Oren Breedlove](https://flightgateaviation.com/pilot-checkrides/) at KSAC

Plane: Diamond DA40, [N202LS](https://www.advantage-aviation.com/aircraft/n202ls/)

Checkride Date: June 18th, 2019

### Training

For the ground portion I read *The Complete Advanced Pilot: A Combined Commercial & Instrument Course* by Bob Gardner. Mine was the 5th edition which was a little old with references to the PTS, complex requirements, etc. A [6th edition](https://www.amazon.com/Complete-Advanced-Pilot-Commercial-Instrument/dp/1619548534/) is just about to be released. Overall the book is easy to read but some explanations are lacking, and other areas mention topics you should know without actually teaching them. I probably wouldn’t recommend it.

As with my private and instrument I used the [ASA knowledge test book](https://www.asa2fly.com/Test-Prep-2019-Commercial-Pilot-P3943C22.aspx) which is excellent. It comes with the test supplement and five free online practice tests. I was taught to get better than 90% on the practice tests before taking the real thing, which I did. I took the actual test at Advantage Aviation ($10 off as an [AOPA](http://aopa.org/) member) and got a 96%. The commercial written is 100 questions instead of 60, so be prepared for a longer test, but no need to study IFR topics.

Flight training for the commercial is a mix of dual instruction and fulfilling [a bunch of experience requirements](https://www.law.cornell.edu/cfr/text/14/61.129), some of which you may have already done, and the remainder you can do solo. It’s probably a good idea to include something like “Meets 61.129(a)(4)(i)” in your logbook for these. In particular make sure your 300 nm cross country meets the requirements because it’s a long, expensive trip to redo. You have to be the only occupant, no taking friends on that one. Mine was 3.2 hours consisting of SMO-IZA-HWD-PAO, including two diversions and a pop up clearance/approach in actual into Hayward. I worked for that one! Definitely get a phone briefing and plan alternates for this trip.

The night landings require an operating control tower, which can be hard to find during the summer. I did some at OAK and SJC as a result. Do a few extra because there’s been some debate about whether the first landing when arriving at the airport counts as a trip in the pattern. The good news is they can be touch and goes at the end of civil twilight, rather than full stop an hour after sunset like currency.

The other significant issue is the 10 hours of instrument instruction. The FAA issued an [idiotic opinion](https://www.faa.gov/about/office_org/headquarters_offices/agc/practice_areas/regulations/interpretations/data/interps/2010/hartzell%20-%20(2010)%20legal%20interpretation.pdf) stating that an instrument rating does not automatically meet this. You may be able to go back and add “Meets 61.129(a)(3)(i)” to previous flights if they describe the tasks necessary and if your CFII is available. Thankfully Oren didn’t even mention this but other DPEs might care. If you’re not instrument rated you can do these 10 hours and get the CPL but you’ll be limited to daytime flights within 50 miles for paying jobs.

I started training with Dan Tzur but ended up switching clubs (West Valley was down to one DA40, Advantage has three) and resumed flying months later with Wes Irish. The major new maneuvers compared to private are [chandelles, lazy 8s, steep spirals,](https://www.faa.gov/regulations_policies/handbooks_manuals/aviation/airplane_handbook/media/11_afh_ch9.pdf) [8s on pylons](https://www.faa.gov/regulations_policies/handbooks_manuals/aviation/airplane_handbook/media/08_afh_ch6.pdf), and the [precision power off 180](https://www.faa.gov/regulations_policies/handbooks_manuals/aviation/airplane_handbook/media/10_afh_ch8.pdf) which has a tolerance of -0/+200 feet from a spot you pick. They’re all interesting to perform and require more control and precision than the private tasks. [UND AeroCast](https://www.youtube.com/playlist?list=PL1B5890E8D2DB569C) has some good YouTube videos on performing all of these. They’re meant to be visual, out-the-window maneuvers by the way.

There’s also a 100 nm (each way) cross country required for day and night which must be dual received. Our night flight to Harris Ranch ([3O8](http://airnav.com/airport/3O8)) was a good lesson in dark, narrow runways and height illusions -- I was going to flare too low and Wes caught me. Our day flight to Auburn ([KAUN](http://airnav.com/airport/KAUN)) was a very expensive lunch with not much benefit. We probably could have done some hood time or pilotage to make it more worthwhile.

I prepared for the oral using the [ASA oral exam guide](https://www.asa2fly.com/Oral-Exam-Guide-Commercial-P3842C25.aspx) and strongly recommend it. I forced myself to cover the answers and come up with a response before looking, otherwise it’s too easy to say “Yeah, I knew that”. They have a scenario-based chapter at the end which turned out to be great preparation for Oren’s style of oral exam. Wes also hosted a Stump The Chump gathering one night where I bought pizza and beer and an assortment of CFIs, experienced pilots, and others prepping for CPL peppered me with questions. It was a great way to find the topics I was weak on.

### Checkride

I ended up having to book the checkride in June in Sacramento ([KSAC](http://www.airnav.com/airport/ksac)), which I was not looking forward to. Oren starts at 10am -- another DPE out there does 8am rides which would be better for the heat, but you’d have to come out the night before. Adding two extra flights to my day wasn’t great though and I was prepared to depart IFR with the summer marine layer. Overall I will try not to travel for a checkride again in order to keep the day shorter, and to have my CFI, club, and MX people nearby if needed. Like many local DPEs Oren tends to book out two months in advance, and rides cost $850 plus a $50 booking fee (among the most expensive as of 6/19).

A week before Wes and I went through the log books to make sure they were perfect. We found an incorrect tach time for a recurring AD but it was superseded by a later entry. I also confirmed that the registration and G1000 databases would still be current on test day. The day before I went to MX and got the autopilot placarded, circuit breaker collared, and log book noted. They also printed an AD compliance report which was great. I really believe it’s the applicant’s job to nail this stuff down -- after all it’s your checkride at stake. The MX and front desk people at [Advantage](https://www.advantage-aviation.com/) were great, they even bumped another renter so I could get in one more practice flight two days before. Apparently saying “checkride” is like saying “student pilot”, everyone wants to help.

The flight out was fine except Garmin Pilot predicted 4 knot tailwinds and I had 32 knot headwinds at 5500. A good lesson to leave lots of extra time if you do travel that morning. I ended up flying across the Central Valley at 2000 feet where the headwind was only 24 knots. I did get to relay a frequency change to another aircraft and got a thank you from ATC which is always nice.

My goal with the checkride was to be as professional as possible and set the expectation that I would pass. I always bring at least two bags of stuff (if you bring less you’re not bringing enough stuff). As it happened Oren had a water line break at home and was 10 minutes late, so I used that time to set up in a conference room. On my side of the table were the aircraft logs with sticky notes for AV1ATE, AD list, POH, FAR/AIM with sticky notes, PHAK, AFH, electronic E6B, etc. On his side of the table I had laid out my license, photo ID, medical, written test results, printed IACRA, and logbooks. I think he was impressed and appreciated it.

To make the qualifications review go faster I had started with some spreadsheets that George Hansel made and customized them a bit. Wes reviewed and signed them in addition to the practical endorsement, and everything was pasted in my logbook. Oren spent about 60 seconds total looking at my logbook and thanked me for making those spreadsheets. If you’ve got a CPL checkride coming up I made [templates for the 61.125, 127, and 129 requirements](https://docs.google.com/spreadsheets/d/1eocITfG62MhxB5aC6bXW8LmhHRBHo6Vbx_b8_0AnVo4/edit?usp=sharing) which you can fill out and print at 7 inches wide, they fit great.

### Oral

The actual oral exam was shockingly short, I’d say 45 minutes in all. What I liked is that Oren prefers to ask scenario questions rather than pop quiz things. He told me he would drill down on any areas which seemed weak and would abort the oral if we got to 3 hours.

When I told him I worked at Google he said, OK, what if the founders offer you $500k a year to be on standby and fly them in their planes. Can you take the job? I was extremely thorough about second class medical, BFR, day and night passenger currency, etc. although he wasn’t actually concerned with those. I looked for any reason not to be able to take the job, considered Part 119 exceptions and [AC 120-12A](https://www.faa.gov/documentLibrary/media/Advisory_Circular/AC%20120-12A.pdf), and finally decided I could. He agreed but said I had overthought it, he doesn’t ask trick questions. My only concern was whether responding to a public advertisement might indicate a willingness to fly anyone e.g. common carriage but he said no. Then he asked what if they put up a billboard with my photo offering rides to the public. I knew this would be holding out on my behalf and not allowed under part 91.

We moved on to planning a cross country, which he had not asked for in advance. No need to do a flight log by hand or use paper charts. I think he wanted to see the process first hand. He told me to plan a trip from KSAC to Tahoe ([KTVL](http://www.airnav.com/airport/ktvl)) leaving in a half hour for a commercial photo taking mission. I should expect to orbit and return, landing there was my option i.e. for fuel if needed. I did everything in Garmin Pilot on a tablet although I prefer a laptop for [skyvector.com](https://skyvector.com/), the [GFA forecast](https://www.aviationweather.gov/gfa), etc. I picked a direct route, checked for NOTAMS and TFRs, confirmed the METARs and TAFs looked good all day, and requested a Garmin briefing which includes AIRMETs etc. Although there’s a timestamp he asked if it said ‘Briefed’ the way ForeFlight does, but it didn’t. I erred on the side of caution and said this might not count as an official briefing, and said I’d call 800-WX-BRIEF (which we skipped).

The fun part was the actual scenario. He said he and another photographer on assignment want to go to Tahoe and do photo passes straight down the middle of the lake at 100, 500, and 3000 AGL. Would I do it? My first response was my personal minimum is two occupants in a DA40 in the mountains, so I couldn’t take both of them. He said OK, the other guy wasn’t necessary, it’s just me and 50 pounds of gear. I did the weight and balance (I set up this N number in Garmin Pilot in advance from the latest POH W&B sheet) and with full fuel we were 200 under gross so I was satisfied. As for the passes I said 100 AGL was unsafe and wouldn’t do it -- time to impact, etc. For 500 I stumbled a bit because I couldn’t remember the [minimum height above congested areas](https://www.law.cornell.edu/cfr/text/14/91.119) and whether a lake would count as one (I knew that beaches do). I said I might consider this. He asked if anything else was needed. I realized we weren’t within gliding distance and would need life vests and flares. I also confirmed 3000 AGL was the maximum and stated we wouldn’t need oxygen after looking up the elevation. I discussed density altitude should we need to land and that I would look up the performance charts but he didn’t make me do it.

At that point he said let’s fly to Tahoe and I realized the oral was over. I never opened a single book (including the aircraft logs, which I assured him were perfect up front).

### Flight

I did a quick preflight and we met at the plane. It was 96 F at 11:15am and I had parked in the sun without a cover, so I knew it was going to be rough. There were no t-shades or hangar space available for transient. Thankfully I ate a sandwich and got a drink before we hopped in.

Oren told me to behave like he was a paying customer so I gave him a passenger briefing and did not let him check the brakes (no reason to find something wrong with the plane). I did everything normally except actually ask ground for flight following. He briefly dropped out of character to help with taxi as Charlie is unmarked, but otherwise we departed for KTVL as planned.

At altitude he asked me to divert to Franklin ([F72](http://www.airnav.com/airport/F72)) which I did with the G1000. Shortly after turning on course he blacked out the PFD, so I pressed the reversionary button. He then reset the GPS to go direct to somewhere else and told me it was unreliable. I hadn’t mounted my tablet because I didn’t want to block my view for the maneuvers. I had called out time, distance, and heading before though so I lined up 186 on the compass and planned to use pilotage, but also mentioned I had my phone. He was fine with that so I went direct in Garmin Pilot and he said “Now you’re a commercial pilot”. Nice to see that he allows using all resources.

I asked for my panel back and got it. We stayed at altitude and did rapid fire maneuvers (thankfully I remembered clearing turns first). One chandelle, a lazy 8 to the left and right, a steep turn to the right immediately into a left one. All were solid. We did a steep spiral and thankfully I chose about 4800 AGL to start because they were a little large which meant we lost more altitude than normal on each of the three turns. I was watching the 1500 AGL requirement to end the maneuver carefully and made it with 300 feet to spare, on heading +/- 10 degrees. For all maneuvers I chose the references, Diablo on the nose or the wing tip, and backed up with the heading bug, plus altitude bug as appropriate.

We ended up within 5 miles of Franklin, not having made any radio calls when he said to enter the pattern. I didn’t even have time to check the charts so I assumed left traffic and called I was on the 45 for 27. He then surprised me by pulling the power and said “Third stripe”. Unfortunately I was too tight on downwind and started an immediate turn instead of extending to lose altitude. I just wasn’t prepared for it and wasn’t thinking clearly with the heat. I slipped aggressively and we could have landed on the 3000’ runway but were way past the 200 foot box. During the flare he said “Go around” which I did and on climbout I asked for another attempt. He said “We don’t do second attempts, I just changed the maneuver to a go around, now give me a precision 180”. Basically he had the right to fail me and didn’t which I really appreciated. The second one was much better, maybe a little long but he didn’t say anything. My head was too foggy to consider that even near sea level the DA must have been over 2500, hence the longer distances.

He told me to back taxi and then do a soft field takeoff, and complimented me on staying low in ground effect. Then we did a short field landing, full brakes, full elevator, flaps up. We stopped about halfway on the 3000 foot runway and he said “Take off from here”. I thought (or maybe said out loud) “Wow that’s pretty short” and then realized he wanted a short field takeoff, which I did. I really like that he did this -- it wasn’t a trick to not ask for it explicitly, it was a test of whether I knew *when* to do a short field takeoff, not just *how*.

On the way back we did slow flight. I asked whether clean or dirty and he said “As slow as possible” so I went full flaps. For stalls I asked whether he wanted to a first indication or to the break and he said the latter. Definitely good to clarify what the DPE wants before you do it, and he had told me there was no such thing as too many questions. I talked through the approach and departure stalls (the [ACS](https://www.faa.gov/training_testing/testing/acs/media/commercial_airplane_acs.pdf) calls for a stable descent on the power off to simulate an approach) and it all went well.

We did 8s on pylons last, and here again I messed up. I picked a road with a T intersection on one end and trees on the other end of it. I made my first two turns OK but then got totally confused and couldn’t find the next pylon. My brain was cooked and there were just too many intersections and trees that looked the same. Oren was very nice and suggested a barn on that road while we were still on the 45 and I completed a couple more turns OK. Again he clearly could have failed me and didn’t. Make sure to pick unique and memorable pylons as each will go out of sight and need to be reacquired. We headed back to KSAC for a normal landing and the total flight was 1.4. We never did accelerated stalls or emergency descents.

### Final Thoughts

Did I mention it was hot? The G1000 said 39 C when I started up to fly home. In hindsight I believe I was actually impaired to some degree. During the flight test my forehead hurt and I misspoke my callsign a couple times. On the soft field takeoff I asked whether we were past the obstacle yet and then caught myself. It was a good lesson in personal minimums, even though I was hydrated, wearing shorts, etc. As much as I love the DA40 it’s a greenhouse in the summer.

I have mixed feelings about passing given how I flew. On one hand I had trained to proficiency and know I can perform those maneuvers within tolerances. On the other it wasn’t my best flying and I didn’t demonstrate 8s on pylons and precision 180s correctly (at least on the first try). He could have failed me on those two, but as I heard another DPE say recently “We don’t expect perfect”. Oren is certainly more than fair, and I think my professionalism and preparation may have helped here too. But I have a nagging feeling that in some way I didn’t earn it -- maybe I’m being too hard on myself. The important thing in this situation is to call out your own mistakes during the maneuvers -- you’re allowed momentary deviations if you correct them. Also ask for another try if you need one and don’t give up, you haven’t failed until they say so.

Overall the commercial rating was really worth doing. It’s a lot like the PPL body of knowledge and maneuvers, but more thorough and more precise. It refreshed a lot of things I had learned previously and made me a better stick and rudder pilot too. Plus I had never learned about pressurization, turbos, equivalent airspeed, etc. There’s some regulations stuff to learn but it’s really not bad. Now that the FAA [has waived the complex requirements](https://www.federalregister.gov/documents/2018/06/27/2018-12800/regulatory-relief-aviation-training-devices-pilot-certification-training-and-pilot-schools-and-other) (for experience and the checkride itself), if you have time in a TAA like a G1000 there’s no reason not to get the certificate instead of a BFR. Even if I had a complex endorsement and airplane I wouldn’t bring one to the checkride -- why have more systems to explain and more procedures to demonstrate in the air?

My goal is to get my CFI next. I got some good advice (which I didn’t heed) to take the CFI written right after the commercial written, given they have about 90% overlap, and the test is good for two years. That would have cleared my plate to focus on the Fundamentals of Instruction written test. However with the Camp Fire smoke and an injury I finished six months later than intended. Don’t beat yourself up if you don’t complete a rating on your original schedule. I also considered doing my commercial from the right seat, but I’ve heard arguments for and against this, so it’s a personal choice. There are certainly some elements of CPL and CFI you could combine if you plan to do both.