

Flying the Cirrus Sim
“What a difference a day can make”

By
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Just recently I completed my IPC and flight review in one of Airshares SR22-G3 Turbo's out of KCRQ Palomar Airport in North San Diego County. I had made the decision to return to flying after a long hiatus and fly the SR 22 for my business in part because of its excellent cross country performance as well as its safety innovations not found in many GA airplanes. Most of my previous flight experience was in my early 20's as a charter pilot flying in Canada's rugged north. A typical flight for me then was in a C-402B or Seneca to what we referred to as “points north”. Not real airports just ploughed 3000' strips of land with hard packed snow on top of frozen ground often with 75' pine trees on either end making the useable length less than 2000'. For our trips we were simply given a grid reference as to where to find these landing gem's and with no GPS, autopilot or co-pilot and only a couple of VOR's in that part of the world finding these points was no easy task. All in all a great experience turning me into what I felt was a solid stick and rudder bush pilot and interestingly enough helped me in my business life later on knowing how to rely on myself with few resources to get the job done.

When I made the decision to return to flying and use aviation as a business tool I promised myself that I was going to find the best airplane and fly as safe as I could having taken all the risks I ever wanted to take in airplanes. The choice of airplane was simple however I wanted to feel I was back at my professional pilot standards able to handle any situation that any combination of ATC, the airplane or weather could throw at me with confidence. Then, I met the GNS 430 a great tool but very distracting! The world had clearly changed since I flew last. With that said, the transition for me into the SR 22 from a flying standpoint went well, I could still fly airplanes and it still recognized things like magnetos, the fuel pump, a throttle (power) lever, etc (hey, where did that blue lever go?) Guess the Cirrus is a bit different. All in all it took about 20 hours and my instructor did a great job teaching me the airplane, its systems and how to use its advanced avionics to fly in SoCal's busy airspace. I took my first solo flight over to Palm Springs easily conquering the high terrain with the turbo charged engine. When I returned, I was all smiles feeling like once again I was part of the aviation community. But, something was still bothering me; I didn't really feel I was yet back to my professional pilot standards I had demanded of myself. I was deemed competent by a tough and demanding instructor but still I wasn't yet where I wanted to be before taking my wife and kids with me. Perhaps I thought I was just being too conservative.

Not able to shut the little voice in my head off I thought to myself “look I've come this far, why not go a little further and seek out some extra training”. As a former flight instructor I knew I was well taught by the guy who signed me off but you can learn new things from different pilots and that flying more in the airplane itself was not what I needed. I wanted the hardcore stuff; I wanted the training that only can be accomplished in a full motion simulator, I wanted to train like the pros. I had read about a Cirrus Sim in Las Vegas and the training done by The Flight Academy and decided to spend a day

with them and then see how I feel. What an excellent choice that was! Unsure of how the Sim would replicate the real airplane I was extremely impressed to learn that the cost of the Sim was over \$2,000,000 and I can see why. It's up on 4 foot hydraulic jacks giving a full range of motion in an enclosed Cirrus cockpit not a mock up like in a Red Bird but a real Cirrus cockpit in every regard. The instructor is housed outside the sim box and you communicate with him via your headset which makes it very realistic. With lights dimmed and the PFD and MFD and other avionics turned on you would be hard pressed to tell you were in a fabricated form of airplane looking down. The realism factor was a high 8 out of 10. More impressive was how it handled, more sensitive than the actual airplane but after a few turns and descents it felt just like the real thing, complete with engine noise, vibration and even the feel of the runway bumps as you accelerate for takeoff. The only thing it didn't replicate well was the turbo component of the SR 22, the sim is set up for the normally aspirated engine so you don't get the kick on the runway you do in the real airplane and the climb out is lethargic. Other than that, the speeds and feel were right on the money.

The first part of the session after an hour review of the airplane systems was to do VFR emergencies starting off with engine problems on the take off roll...do you really watch the gauges on the takeoff roll? You sure will after spending time in the sim! The first indication to anything amiss is watching the gauges on the roll, see something out of the green, you quickly pull the power lever back and step on the breaks. Try that in the real airplane when in training, you'll have ATC screaming and Airshares calling you about the burnt out break pads! Then we went into the air and practiced engine failures on initial climb out, I couldn't believe how far forward you have to push the nose over to maintain airspeed after an engine failure at 300'. Had I not seen that in the sim I don't think I would have ever pushed that far forward in the real airplane just to keep it flying as its not a natural instinct so close to the ground and as a result I could have been at risk of stalling in that situation, its why the instructor said so many guy's stall their planes when they have an engine failure on the climb and crash out of control. The key is to keep the plane flying and you'll most likely walk away.

Then came time to deal with CAPS decision making. My feeling of the CAPS before the sim session was mixed. I thought it's nice to know its there but do I really want to use that thing? Can't I fly my way out of most situations? The answer now is no way, don't even try. Engine failure between 500' and 1500' just pull if you can't get the engine going. The instructor set up a scenario where I climbed out on a tank with low fuel and the engine failed at about 1500' AGL just enough time to run through a quick restart flow and low and behold as soon as I switched tanks the engine fired up. Other times I was too low to even try a restart so I just pulled. I learn when to pull immediately, when you can asses and try to remedy the situation or see if you can make it back to the airport. The chute I learned is to be looked at as the safest way to land the airplane under some emergency situations. I never really looked at it that way before.

Then we had lunch and did another hour of ground instruction before climbing back into the sim for 2 ½ hours of IFR flying which included an abnormal situation on every approach from partial panel to ice accumulation to smoke in the cockpit and even a

runaway trim all done in night IMC to minimums. The afternoon session was both challenging and fun. We also flew complicated departure procedures and several gottcha approaches which would have taken days to accomplish in the real airplane. I found it takes practice to transition to the back up instruments especially with the PFD stuck in a 35 degree descending turn without warning. You really can't try that in the airplane. When it was all said and done including recovery from unusual attitudes I walked away with a lot of respect for what professional pilots go through in sim training but more importantly that I'm back to my professional pilot standards and feel trained even better than ever. I now plan to alternate between going up in the plane with my instructor and going back to The Flight Academy for Sim training every six months and yes, I'm finally going to take my family for a ride.