



How I Chose to Build a Sonex

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When one sets off to make a large purchase, or to commit to expend hundreds (thousands?) of hours on a major construction project, one typically performs some level of inspection, analysis, and planning before taking the plunge.

Ah, but it's not just a quantitative process. Subjective issues come into play as well. Ford versus Chevy. Sonex versus Vans. Blond versus brunette. All of these issues determine our ultimate happiness and level of contentment, and, ultimately, to the likelihood of completion.

I was flying a cherry 1967 Cessna 172 - 1600 total time since new, original paint and upholstery. Tight controls. A very nice plane. My problem, though, was maintenance. I performed the allowed owner maintenance tasks to the extent permitted by the FARs, and was comfortable doing so. After all, I grew up with '60's muscle cars, and was a professional Chrysler tech in a prior life.

I was blessed to have a great A&P tech to do the other tasks on my 172. The trouble was, he was **too** good - he was always booked. If I had a problem that grounded my plane, he'd work me in within a few days. But when I need other work done, like the installation of a CHT gauge, I had to wait months for him to work me into his schedule. I could DO this stuff, I always griped.

So, I sold my plane and decided to build. With a Repairman's Certificate, I could do it ALL, and that suited me just fine.

I took about two years to make the final decision to build a Sonex. If you're still reading, I'll cover my thoughts and decisions. Please remember that there is a certain level of subjectivity here - the path I took may well be orthogonal to yours.

So, the first step was to figure out what's out there. I knew my mission: solo flight 98% of the time, mostly local "decompression" flights get away from it all. The fairly regular \$100 hamburger. A few medium cross-country flights up to Kansas. Pancake breakfasts with friends. I have a Private Pilot certificate, so am legal to fly at night, but in reality almost never did so.

I didn't want to fly an unfamiliar product, so number of completions was important to me.

I looked at the Sonex first. When I started looking in 2005-2006, there weren't that many flying. The cost and claimed performance were attractive, but that sloping front. And, you call that a panel? There's no room for anything useful in there! It all just seemed so...tiny. Or so I thought....

I also looked at the Zenith CH-650, Rans S-19, Van's RV-9A, and Kitfox. Van's RV-12 was not announced at the time of my investigations.



I quickly eliminated the Zenith. This was before there structural issues, so that wasn't an issue at the time. The Zenith looked attractive, and offered several different powerplant options. Two things turned me off, though: the thin-ness of the skins (.017") and what I considered to be an unattractive center stick. Again, subjective. The Zenith was eliminated.

I should also chime-in here that I regularly attend Oshkosh, so I participated in all of the mini-workshops on metal construction, fabric construction, and composite construction. I recommend you doing the same. Why buy a fabric airplane kit if you've never tried that construction method?

Next up was the Kitfox. Again, several engine choices. It was a high-wing, which was attractive to me. The deal killer for me was taking the fabric workshop at Oshkosh 2007. At the end of the session, I determined that no way could I work with fabric. I've flown fabric planes and love them; I just felt that fabric construction was not for me.

I then visited the Rans facility in Hays KS, since we head up that way on a regular basis. We visited about 2 weeks after the first flight of the S-19, so I could sit in it, but could not receive a demo flight. Wow. That plane is nice. Roomy, and nicely equipped. I started digging deeper - this was looking attractive. I subscribed to their discussion group. I sent some test emails off to their tech support person. Unfortunately, if I posted a question to their forum, I would not receive a reply. Nor would anyone else post questions (and this was the general Rans board, not S-19 specific). Responses from tech support took 3 days or more. The sounds of crickets chirping killed the deal for me on this one. If I have a question, I want an answer. Now. Note: this may no longer be an issue - I haven't monitored their activity for the past 6 years.

OK; at this point, we're down to two aircraft: Vans RV-9A or the Sonex. There were lots of similarities that mattered to ME: both have the best plans in the business. Both have active builder communities. Both have outstanding tech support. We were getting down to brass tacks here...

I put together a small Excel spreadsheet for the costs involved. I found a used, mid-time O-235 engine would be about the same rough price as a new AeroVee (in 2007). I also discovered that if I equipped the RV-9A with the same panel as would be usable in the Sonex that the costs for the RV-9A were only about \$5-6,000 more than the Sonex. This was not a deal-breaker for me.

After monitoring the vansairforce.net RV-9 forums, I came across another discovery: it seemed that the active RV-9 builders were reporting construction times in the high-1400 hr ranges, even with the QuickBuild option, and weren't yet completed. At this point in my life, I considered myself a flyer, not a builder, so I was disappointed, especially when Sonex builders were reporting completion times of 1000-1200 hrs.

Which resulted in the boiled-down decision to go with Sonex.



One other item was an added side benefit. The basic Sonex plans were (and still are) available with enough information to support either scratch-built or kit-built projects. As in, all dimensions were available on the plans sheets themselves.

At the time, the kit industry was going through upheaval. Several kit manufacturers were sold; fortunately, most have survived and continue to this day, but I wanted to be prepared for the "what if." I figured that with all dimensions on the plans pages, along with the strong builder community, if something should happen to Sonex LLC, I would not be an orphan builder, and could finish my project, even if I had to have replacement parts fabricated by a machinist.

So, I purchased a set of plans around Thanksgiving 2007, and signed up for the February 2008 Sonex Builders' Workshop. I had convinced myself that if I didn't want to continue after the workshop that I could sell the plans at a reduced price. Kind of like paying an A&P for a pre-buy inspection on a used plane.

The workshop was a success; my wife was my partner, and was as impressed with the Sonex operation as I was. We waited a few weeks after the class for financial reasons, and ordered the complete kit. Tailwheel, dual controls. It arrived April 1st (no kiddin') 2008.

I calculated that if I budgeted for 1200 hours of build time, that would result in a two-and-a-half-year build duration if I worked 10 hrs on each weekend, and 3 hours during the week. I purchased the pre-built spars and the machined angle components kit in order to reduce the overall build hours so that we could still afford to head out of town occasionally in order to keep Mrs. Orton on-board with the project.

In retrospect, the build took me 4 years, and 1370 hours. But, those hours included all fiberglass prep and painting, and some rework. So I really did finish in approximately 1200 hours. Life got in the way in 2010 and early 2011 career-wise. Some months I only worked on the Sonex for about 10 hours over an entire month. I also never achieved 13 hrs per week - life got busy.

The project was fun. Challenging, sometimes, but rewarding nonetheless. I saw mine through to completion and have been flying it regularly, if not as much as I'd thought. Family things, y'know.

Feel free to checkout my build log at <http://mykitlog.com/corton>