

Building a Sonex: A Lesson in Life  
By Jeff Shultz

“Dad, can we go to the airport today?” I’d been waiting 18 months to hear those words. So many people say the first flight was the culmination of their building experience, but for me, it was hearing those words from my 4 year old that made the project all worth while, showed me what an amazing journey this has been, and reminded me why I loved it so much.

The motivation to build an airplane was rooted in my past. I’d grown up around airplanes, and learned to love them. My earliest memories are of flying, and indeed my family photo albums have pictures of me only weeks old perched atop a Cessna on my way to visit family half way across the country. I built plastic models as a kid, then stick and tissue gliders, finally graduating to radio controlled airplanes. My father was a pilot and I grew up flying with him. It just seemed natural to start training for my license at the earliest possible time, and soloing shortly after my 16<sup>th</sup> birthday was the result. I was hooked on aviation. I also loved to build, and there was never any question as to whether I would build a plane, simply which plane.

When I got to a place in my life and career where I could afford to build, and had the time and space, I got serious about settling on a project. Having read many times about the importance of defining one’s mission before choosing a project, I took a hard look at my mission. After lots of soul searching, I decided I wanted a fun flying, inexpensive two-place, capable of basic aerobatics, that could be built for under \$30,000. In the end, I settled on the wonderfully efficient Sonex. This airplane had the fighter-plane handling I wanted, at a price I could afford. Every builder I talked with raved about the plans and kit, going on at length about how detailed and complete they were. I was sold!

When the planes to Sonex #604 arrived, I was briefly overwhelmed and found myself asking “What have I gotten into?” The plans really were superb, once you got past the initial information overload of sections, callouts, and details. Every part was described in perfect engineering detail, leaving nothing to the imagination. I got started immediately, building small parts from extruded aluminum angle while awaiting the rest of the kit’s arrival. You see, whether building from plans or a kit, the builder of a Sonex makes all the angle parts from raw extrusion, and I didn’t want to waste a minute! This approach worked beautifully, because by the time the kit arrived 3 months later, I had a box full of finished parts and the details of construction were coagulating in my mind.

The Sonex kit proved to be everything I expected. Laser cut skins combined with formed bulkheads and channels and in no time, I was making progress. I was in the groove! And this is where I learned my first of many unexpected lessons: you have to balance building passions with family requirements. To say my family was supportive would be an understatement. My wife helped and encouraged me every step of the way, even if she didn’t care much for actually building. She made time for me to work in the garage after work, and on weekends, and I made time for her and our children. You see, balance was every bit as important as progress, and I was learning that here.

Parts were trimmed, carved, and clecoed, and soon I had parts worth showing the neighbors. I never knew that airplanes drew people out of the woodwork, but they sure seemed to! Over the next year and a half I was continually meeting new people, many of who happened to be driving by and saw my project in the garage and would stop to talk. I never passed up the chance to spread the Sport Pilot message, in the hopes of igniting some new flames. The call list was growing with people who just had to be there when I made the first flight. I was on a first name basis with Dan the UPS man, and he looked forward to regular progress reports with each delivery. I was documenting my building progress on my web site, and participating on the Yahoo Sonex builders' internet groups. Many of those people I met there I now consider friends. Dozens of strangers emailed me to ask questions or to share their thoughts and experience. That's when I learned another unexpected lesson: sharing passions allows you to reach out and form new relationships. Building my Sonex was teaching me that.

Eventually, the small parts merged together, and those in turn grew into tail, wings and fuselage. Space in my shop was getting tight, and that could only mean the end was drawing near. If only that meant the plane was getting close to being finished. I was learning the truth of the adage "90% done, 90% to go". There were myriads of details to work through, from finishing the interior and instrument panel, to painting, and rigging controls. When it looked like I could see the end of the to-do list, I scheduled "game day" and contacted my local Designated Airworthiness Representative (DAR) to set up my airworthiness inspection. Frank's a volunteer in the EAA DAR program, and he made the 4 hour drive for next to nothing to conduct my inspection. He was professional, thorough, and very helpful. He helped me with a few missing entries in the aircraft logbooks, and found a few minor deficiencies that were easily corrected. When all was said and done, he presented me with a "Good job. Very nice workmanship" and a pink airworthiness certificate. I'm not sure which I appreciated more.

On October 8, 2006, with the support of my family, I made the first flight of Sonex N604X. It was an exhilarating mix of adrenalin and quiet concentration. I was so focused on the task at hand that the impact almost seemed to pass me by without realizing what a true milestone it really was. Over the next few weeks I reflected on that first flight, and the past 18 months. Lessons that had been banging around in my head for a while started to come into focus. I realized I had learned more than simply how to cut and debur aluminum. I had learned a lot about myself, and how to be a better father and husband. Kids want to share time with you, and merging parenting and hobbies only strengthens that bond. Balance was the key, and if you do it well, everyone wins. I learned that relationships are born and fostered in the unlikeliest places. Take advantage of those opportunities. I learned that you really can eat a whole elephant, one bite at a time. I learned patience, and the value of taking time to do something right, instead of twice.

Lastly, I learned that first flights are wonderful and priceless, but no where near as good as my children asking "Can we go to the airport today?", knowing they want to spend time with me doing something I love, and something they are learning to love as well. To me, that is the culmination of building my Sonex.

For more information, visit the author's website at: <http://users.cablemo.net/~jjshultz/sonex>



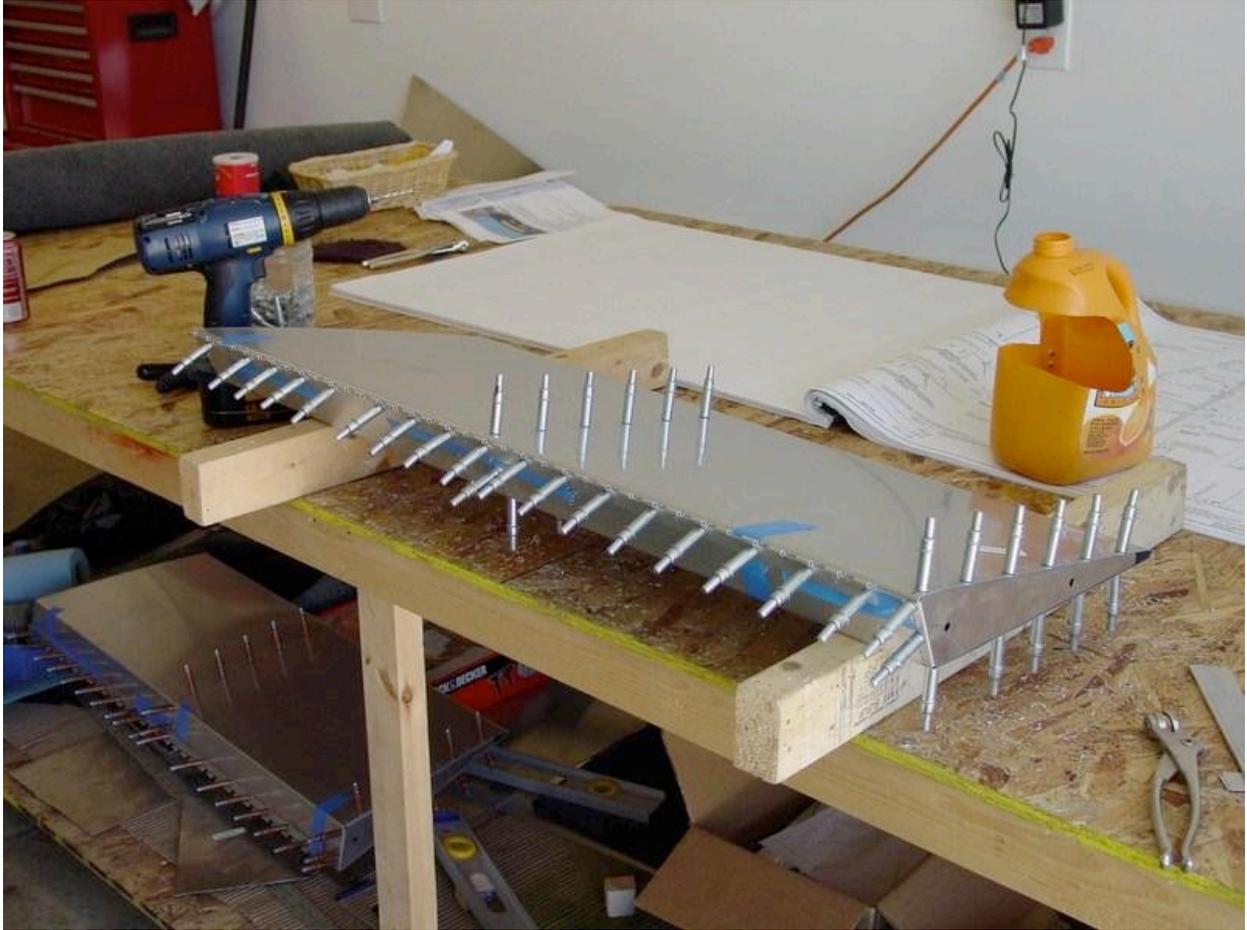
Trying on for size the first completed section of the fuselage



The author's daughter, Nicholette, inspects the aft fuselage



Fitting the turtledeck formers into the aft fuselage



The completed Rudder assembly is clecoed in preparation for riveting



The author's wife, Jeannette, drills and clecoes the aft wing skin



The author's son, Isaac, confirms the aluminum seat pan is a perfect fit



The fuselage was painted in a temporary paint booth set up in the driveway. Here, the fuselage is receiving a coat of primer.



Fuselage stripes are laid out and taped in preparation for the next color coat



With the final coat of paint applied, the masking is removed



Airworthiness Inspection now complete, and Sonex N604X is ready to take flight



Putting the plane away in the hanger after another successful flight