

WHAT OUR MEMBERS ARE BUILDING/RESTORING

Clouds With Silver Linings

lowa pilot goes from busted medical to dreamy machine BY DOUG BOYD, EAA 659743; MARSHALLTOWN, IOWA

CLOUDS CAN HAVE SILVER linings. One of the high points in my life grew out of one of my low points, when the FAA doctor uttered the words, "You have atrial fibrillation, and I cannot reissue your medical."

After absorbing this turn of events and embarking on a treatment plan, I decided I wasn't ready to give up flying and needed to find a way to aviate without a medical. While I was looking into that side of aviation, I discovered there was forthcoming legislation on lightsport flying. Now that had possibilities!

Enter Jim Robinson of Erie Airpark, a dealer for Challengers from Quad City Ultralight. I took a demo flight in a Challenger II and didn't buy one on the spot, but I was seriously hooked. Jim promised that I could actually build my own airplane, and he would help. He was true to his word, and about two years later my first homebuilt craft took to the skies. It was a registered experimental amateurbuilt, and flown under sport pilot rules. Today that wonderful little airplane has more than 400 hours on it, and is still a joy. But a year or so down the pike, and with retirement looming, I discovered something: I missed building airplanes!

EAA figures heavily into this story. I joined the local chapter when I started building the Challenger. Our little Chapter 675 is unique in its high ratio of airplanes to members, especially homebuilts, and these friends were helpful with building the Challenger. The chapter held several meetings in my hangar, and I became chapter president for a few years. Of course it was EAA that led the drive for the sport pilot rules that let me fly again, and I can't thank our organization enough for that.

And then there was AirVenture Oshkosh. While building the Challenger, AirVenture became an annual pilgrimage and remains so to this day. It was there that I realized how much fun I had building the Challenger, and that maybe I should take on another project. AirVenture is also the perfect place to shop for that next project. It took a couple years of looking, but I found myself continually drawn back to those little yellow machines from Sonex.

I didn't really know at first what I was looking for, but it had to be sport pilot-eligible, it had to be a kit, and it would be nice if it involved some learning without overly taxing my builder skills. An established company and a well-known design were also important, as I'm not quite a cutting-edge sort of guy. Sonex fit all those criteria.

I had never worked with metal before, and this provided the new challenge, but blind-rivet (pulled-rivet) construction made it seem doable. It also helped that it was a cool-looking airplane, and seriously fast. I love the low and slow Challenger, but I was ready to add another dimension to my flying. Talk about cool design—that Y-tail Waiex was for me. I took the plunge.

But I wasn't alone in the deep end of the pool. My friend Lorin Miller, EAA 468068, also decided on a Waiex, and we picked up our kits together at Sonex in Oshkosh. He had a big enough trailer to carry both kits back to Iowa, saving big bucks on shipping. That was only the first of many times that Lorin contributed substantially to my project. I hope I contributed to his as well.

Back home, the band saw I got for Christmas helped me cut structural parts from aluminum angle stock. In February, Lorin and I were back in Oshkosh, with spouses in tow, for a Sonex builders workshop. It was fun, informative, and well worth doing for any newcomer to metal. The highlight, though, was the final banquet held in conjunction with the local EAA chapter's annual celebration at the EAA museum. Despite the warm reception by Sonex, I have never been so cold in my life as I was walking from the parking lot into the EAA AirVenture Museum. It gets cold here in Iowa, but the temperature that night was nearly -30°F with 20-plus-mph winds. I don't think I'd have survived another 50 vards!

Building the Waiex was all I hoped it would be. More, in fact, as what I expected to be a three-year project turned into five and a half years of fun—along with the occasional consternation, as you would expect. Why longer? I didn't know just how busy retirement is! (If you haven't been there yet, you'll find out.) And, okay, it was considerably more complex than my first airplane.

My wife has always been supportive but had some reasonable rules. No. 1, "You shan't forget family, nonairplane friends, and life with me." No. 2, "No, you shan't build in the garage where I park my car out of the rain and snow." I sacrificed build time to keep faith with No. 1, and solved No. 2 by building small parts in my basement and securing access to a garage next door—with heat, no less!

After the small parts came control surfaces, then the empennage. I started working first with the easier assemblies, then moving to the more complex. The wings came next, including building the spars, the only structure with "hammered" (driven) rivets. As with other processes, Sonex made this easy with a special bucking bar, and a trick taught in the builders workshop—a way of driving rivets with a hammer and a homemade driver fashioned from a big bolt, nuts, and washers.

I then built the rear and forward fuselage sections, joined them together, added the landing gear, and developed ways to keep things square and straight. It was a big day when Lorin and I mounted that beautiful Jabiru six-cylinder on the front end. I could spend pages describing panel design, wiring, and the delicacies of shaping and mounting the canopy and cowling, but it all came together with time.

Registration and preparation for my FAA inspection was stressful, but only because no one wants the FAA to delay certification due to faults in the project. In the end, my experience with inspectors was positive. They conducted an efficient yet thorough inspection, complimented my workmanship, and even offered a few good ideas for improvement.

During construction of my Waiex, EAA chapter friends were always available for consultation, ideas, tools I didn't own, a third and fourth hand—and moral support. Yes, the job could have been done pretty much singlehandedly, but the aid available from this great bunch of guys really added a lot of fun and mental ease to the project.

August 13, 2012: The little silver airplane lifted off smoothly from the Midwestern airport runway and climbed into the calm, late afternoon sky. Other than a couple of men watching intently from close to the runway edge, this appeared to be a routine and normal departure. It was not. This was the first time this homebuilt airplane took flight, and the first time its pilot and builder flew this kind of airplane. No, for him, this takeoff was the launch into the joyous unknown of an experience long anticipated. The friends beside the runway (with their chase car, fire extinguisher, and radio) shared the joy of success with their EAA friend in the cockpit, who will remember the evening forever. EAA

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WHAT OUR MEMBERS ARE BUILDING/RESTORING

ARIZONA RV-8

MY WIFE, ROSE, and I started our RV-8 project in 1996, and 13 years later, we finished it. All work was done in our garage, and later in our hangar, which we built at Twin Hawks Airpark. We overhauled a Lycoming O-360 and installed a Dynon

D100 and Flightline FL-760 VHF radio. Avionics also include a Garmin 320 transponder and a TruTrak autopilot, coupled to my portable Garmin 196 GPS. It's a terrific airplane, and we've made numerous trips to the coast and the great Northwest, as well as flying to work at Bombardier/Learjet at Tucson International Airport.

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MARYLAND LONG-EZ

I PURCHASED THE PLANE as an on-gear project in 1996, and performed the first flight in July 2008. I spent the next few years getting the cylinder and oil cooling under control and working off other squawks. The paint was finally applied in November 2011, 15 years after I started. I built the plane because I fell in love with the design when I was a kid and because I wanted it the way I wanted it, instead of fixing up an existing aircraft. The plane is equipped for baggage pods, a Lycoming O-320-E2D, a Catto three-blade prop, vacuum system, electric trim, speed brake and nose gear, Trio autopilot, RMI encoder and engine monitor, and Garmin GNS 430 GPS. I've refused to go to Oshkosh all these years until I could fly my own airplane there. When I finally got there last year, I came home with a Bronze Lindy.

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WISCONSIN SONEX

THE FIRST FLIGHT in my plansbuilt Sonex was September 28, 2012. Thanks to the great plans from Sonex, other than a lot of sweating, the flight was uneventful, as I had hoped it would be. N485PB is a tricycle-gear version with dual controls and is powered by Sonex's AeroVee 2.1 engine. My instrument panel has a Stratomaster, Enigma EFIS, and a V10 comm. With help from my brother Morry, and a lot of patience and understanding from my wife, the project took six years. We spent four years fabricating parts, and two years assembling the aircraft and engine.



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GEORGIA ERACER MK. II

AFTER 17-1/2 YEARS of part-time building, four long-distance moves, and a lot of patience, ERacer N382RB made its first flight from Falcon Field in Peachtree City, Georgia, on October 6, 2012. This plansbuilt, fully retractable-gear canard aircraft is powered by a 180-hp Lycoming IO-360 turning a Hertzler Silver Bullet propeller. What an incredible feeling as the aircraft lifted off the ground! Thanks to Shirl Dickey for a great design as well as to my wife, Barbara, and my three daughters, who supported and helped make this dream come true. For more details, visit *www.SportAviation.org*.

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MINNESOTA ZENITH ZODIAC

I TOOK N63PZ UP for its first flight shortly after sunrise on Saturday, October 27, 2012, at Airlake Airport in Minneapolis. It took five years, 11 months, and 16 days to build my Zenith Zodiac, from first rivet to first flight. It is powered by a Corvair engine, which I also built. The project had the support of my wonderful wife, Mary, every step of the way. We had a lot of fun and met a lot of great people, and we're already thinking about what to build next.

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