

How Long Have You Been Building?

How many times have you been asked that question? My standard answer is “Two moves, four hurricanes, and a war.” It’s a pretty strange answer I know. Let me explain what I mean.

I used to own a Piper Cherokee. It was great as a little cross-country machine for flying the family back home for weekend visits, but I knew it didn’t have everything I wanted in a plane. It was too slow, and, more importantly, it wasn’t acrobatic. I fly fighters in the Air Force, and get my “G-fix” every time I fly. But I realized that wouldn’t last forever. When they finally said I was finished flying jets, I would need some other way to fill the need.

The Search Was On

Owning the Cherokee cured me of the need to own a factory-built airplane. I was on the hunt for a kit. Because of my speed and acrobatics requirements, I quickly narrowed the field down to just a few planes. Then I looked at the companies that made those kits. Not just how many kits they have sold, or how many are flying, but what percentage of the kits sold are flying. I called this the completeability factor. I was more interested in a company that had only sold 500 kits if 400 of them are flying and the last 100 just haven’t had time to be finished than I was with a company who had sold 2000 kits, but only 500 were flying. I still think this is the biggest factor to consider. Especially for the first time builder. It is such a big project, you might as well get a kit with a good reputation. We’ve all heard countless stories of unfinished projects.

At this point I was down to two—an RV, or a Glassair. Then I flew an RV-8, and that was all she wrote. I’ve flown fighters for the Air Force for nearly twenty years. The RV-8 is the closest thing to a fighter I’ve ever flown that didn’t have a jet engine. It was pure pleasure, and yes, I did have the “RV Grin” when I landed.

All that was left was the choice of which RV to build. My wife isn’t into the weekend flying. She is perfectly happy to go cross-country, but doesn’t want to “slip the surly bonds” on a sunny Saturday afternoon. So I knew most of my flying would be solo. With that in mind, I chose the tandem seating so I wouldn’t have the empty cockpit to my right interfering with my view of the world. I chose the 8 over the 4 only because it is faster, climbs better, and has longer legs. And I chose the RV-8 verses the RV-8A because tail wheels are cool and the RV-8 is faster.

The Building Begins

I started building my RV-8 in June 2001 while I was stationed in North Carolina. I was sharing a hanger with a buddy who was also building an RV-8. This turned out to be a great advantage. I had a built-in partner to help with the two-man jobs like riveting the skins on the wings. Because he was farther along in building, I also had a three dimensional model to look at when I had a question about the plans or drawings. I could just look at his plane and see what the plans were trying to tell me.



My wings and my buddy’s fuselage in the hanger in North Carolina

The tail kit was quickly followed by the wings, but the fuselage would get interrupted. I had helped my buddy build the jig he used for his fuselage, knowing that I would also use it when my time came. I was halfway through the initial assembly of fuselage parts on the jig when I was deployed for the war.

First Deployment

I spent four months in early 2003 deployed. Away from home and family, you have to find something to keep you actively engaged. Flying has always been a passion with me, so flying F-15Es every day not only kept me busy, but also gave me the much-needed link to aviation. Compared to the 12-month and longer deployments soldiers are doing now, mine was a drop in the bucket.

Time to Move

I returned home and was told I would be moving to Florida in four months. Since the fuselage was still half in the jig, I knew I didn't have the time before the move to get it all riveted together. So I decided to get the initial fuselage drilling completed. Then when I pulled it all apart to do the dressing, dimpling and priming, I could pack it all up and move it. The next time I put it all back together for riveting would be in Florida.

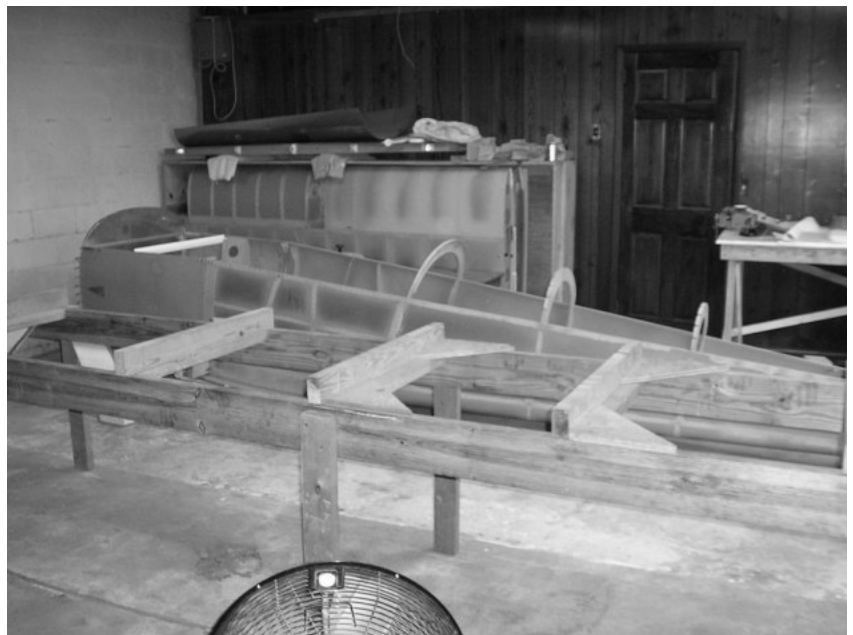
This first move was relatively easy. All the parts were still basically flat. I kept the crates Vans shipped everything in and used them for the move. The vertical stab, rudder, elevators, flaps and ailerons all fit into the crate Vans shipped the wing kit in. I used old blankets for padding between the parts.

The wings fit into the crate from the fuselage kit. I had some one-inch Styrofoam that I put in first, then the two wings. I screwed a block of wood to the end of the crate, and clamped the spars to it. Then I bolted some small blocks through the lightening holes on the tips. Another piece of one-inch Styrofoam and I put the top on.

All of the small parts and skins for the fuselage fit back into the crates on top of the other parts. The only things left out of the crates were the floor skeleton and the horizontal stab. So I loaded everything onto a flat trailer and strapped it down for the move.

Building Continues

I arrived in Florida in August 2003 to find the local EAA chapter just taking over an older hanger. Before I could continue building on my RV-8, I had to help cleanup and setup some workspace. Among other things, we ripped down some old walls, ran electric wires for power and lights, and treated the hanger trusses for rust. Once I had some space to build, I made my second jig and finished the initial work on the fuselage. On the older kits, Vans had drilled holes that you could use to ensure the fuselage was coming together true and square. I was very happy when after two jigs and a



My workspace in Florida, the happy day the fuselage came out of the jig.

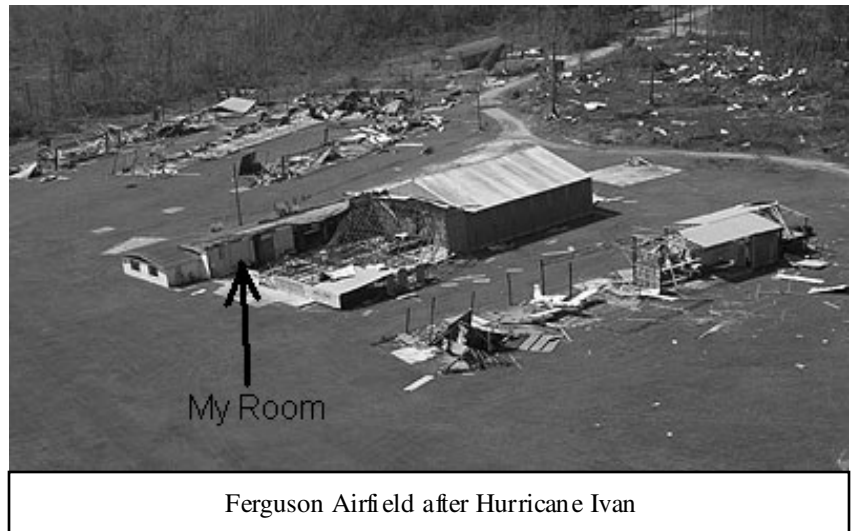
move, my holes lined up enough to put a cleco in them.
Hurricanes

During the three years I lived in Florida, we had four hurricanes threaten Pensacola. For each one, I packed everything back into the boxes to keep all those little parts from becoming projectiles and stacked everything on the workbenches in case it flooded. Then I covered it all with tarps and strapped everything down. Three of the four hurricanes went by with little to no damage, but the fourth one, Ivan, pounded us pretty hard.

The plane went on hold for about six months while I spent all my free time putting our house back together. I don't think I would have been able to sell going to the airport to work on the plane before the walls were repainted, or the floor refinished from the hurricane damage.

You can see in the picture the damage it did to the airport. Those piles of wood and debris used to be T-hangers on both sides of my hanger. The roof of the front half of my hanger blew off and the rafters fell down. The roof caved in on the room behind mine, and the one in front lost big pieces of its roof. But God was watching over me, and I only had a leaky roof. Nothing was damaged—a little wet, with some minor corrosion on some parts, but no damage.

Since my old shop was ruined, I needed a new place to work. So I moved into the corner of the shop of the airport's A&P. This turned out to be a huge benefit. I had access to all kinds of cool tools and a large selection of hardware. But more importantly, I was working under the eye of an IA. It was good to have someone to bounce ideas off of and to check my work as I progressed.



Ferguson Airfield after Hurricane Ivan

Second Move

After three years in Pensacola, I was told I would be moving again. The canopy and fairing weren't complete, and I was worried that something might get ruined traveling at highway speeds unless they were complete. I sure didn't want the wind to get under that \$1000 canopy to blow it off the frame.



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Until this point, I had always built at a leisurely pace, enjoying myself as I went. But this time I felt rushed to complete the canopy so I could safely move the plane. I really didn't like having the deadline. It made going to the airport more like work than fun.

It was moving time again, so everything went into the crates, then I

packed everything (plus my motorcycle) onto a trailer. The crate with the empennage went on the bottom, between the tracks a car would normally drive on. The wings went on next, and the fuselage topped it off. That's my toolbox and engine on the front. You can just see the front tire of my bike poking out. The small fuselage kit crate was behind it. If you look real close, you can see the horizontal stab, wrapped in foam and tucked under the wing crate. The entire kit, plus my bike, fit on the trailer. Jed Clampett lookout!

As I pulled into town in Leesville, Louisiana at the end of September 2006, one of the EAA members saw my trailer full of RV-8 parts and called her husband, also an EAA member, to let him know there was a new builder in town. In true EAA fashion, he showed up at the airport to help me unload. Over the next year, I installed the electric, pitot/static and brake systems, bolted on the gear, and mounted the wings and empennage. With just fiberglass tips and fairings, and the engine to hang, I was deployed again.

Second Deployment

This time I was sent to Baghdad in November of 2007 for six months in a non-flying job. I again faced the two same issues—filling the empty time, and keeping connected to flying. My parents sent me a model airplane to “give me something to build and keep my hands busy.” I don't know if it was meant as a joke or not, but you can bet I built it. I even had to carve my own prop for it.



Web Site

My brother came up with a lifesaver. He wanted to learn how to make a web page, but needed a topic. So I used the free time I had during this deployment to write about building the plane, and he put the web site together.

I wanted to do it a little differently than the others I have seen. I wanted it to be more than just a builder's log. Instead, I focused on the spots I had trouble with and how I got past them, including helpful hints as I went. You can check it out at www.kit-plane-advice.com.

My deployment is almost over, and in a few weeks I'll be going home. I still have some more work I would like to do on the web site. I want to add many more pictures and, more importantly, I want to add a comment section. I would love to get feedback from others about what I've written and if it was helpful. I would also like to include other builder's ideas, helpful hints, trouble spots, and how they got past them.

It's been a long journey, but it isn't over yet. Not just flying, but building too has gotten into my blood. Mine may not be the longest, most interrupted build, but I bet I'm in the running. I would like to hear the others.

So, how long have I been building? Two moves, four hurricanes, and a war.

About the Author:

Chris Mallory is a Weapons Systems Officer, WSO, in the United States Air Force with over 3500 hours flying in the T-37, T-38, T-43, T-1, T-39, T-6, F-4, F-111 and F-15E. He holds a multi-engine land, instrument rating with over 750 hours flying “little” airplanes. He is also an A&P, but is waiting to retire from the Air Force before getting his IA. Check out his web site offering RV-8 and other kitplane building help, technique, and advice at: www.kitplane-advice.com.