

## **N434GC—It Flies!!!**

April 24, 2004 marked the highpoint of a ten-year homebuilt aircraft project. My Glasair IIS FT lifted off for the first time at about 8:00 a.m. that morning. Tim Martinson acted as my ground liaison and official photographer. Prior to that day the airplane had been taxied and ground tested for about 1 ½ hours. That first liftoff was a thrill that will always be one of the highlights of my flying career. Now, for the rest of the story!

The airplane was inspected by Ted Gauthier on March 27 and he issued the Special Airworthiness certificate that day. Ted was extremely helpful and thorough in getting me through the paperwork and inspection process. Ted is a FAA DAR based at Pontiac and has completed a beautiful RV (red and white with a checkerboard accent) that we frequently see at Mason. It was great to work with someone who has experience as a homebuilder.

The day following the inspection, I went on vacation, so by the time I got back in town and we had decent weather to fly—it was almost a month before the first flight. During that time, Keith Walker was gracious in giving me several hours of left seat time in his Glasair IIS. That time included several patterns and landings which built my proficiency and confidence for the first flight. The Glasair has a much higher wing loading than the typical general aviation airplane, so I was grateful for the time in Keith's aircraft. Terry Lutz, our Chapter Flight Advisor, also worked with me to refine the first flight plans and to help get me mentally prepared for that first flight. Our Chapter is very fortunate to have a Flight Advisor with such great experience and willingness to help.

Ground testing involved engine runs at all power settings and getting used to ground handling without nose wheel steering. Steering with differential braking wasn't difficult to learn and it seemed natural after a very short time. I found that a big advantage of the castering nose wheel is the ability to turn the aircraft in a very short turn radius. I did some "fast taxi" on the runway but did not attempt liftoffs before the first flight. I figured there was more potential risk with a brief liftoff, touchdown and getting stopped in time than just going for it on the first flight. Terry Lutz agreed with me but stressed that I had to be prepared to abort on that first takeoff if the airplane didn't feel right. That first takeoff roll was definitely the point of most apprehension, but the concerns quickly turned to joy as the liftoff was very smooth and there was no roll tendency at all. However, during climb out, I noticed that the cylinder head temperatures were climbing faster and higher than I am used to seeing in other airplanes so I pulled the power back and decided to stay in the pattern. Tim was on the radio and I let him know I was going to come around the pattern to check controllability with flaps before landing. The airplane flew beautifully in the landing configuration, so after one low approach, the second pattern was flown to a full stop landing. Following a smooth touchdown and rollout, I had time to think about how smooth the controls were and how well the electric elevator trim worked. The critical questions had been answered in that brief ten minute flight—the airframe was straight, the controls were properly rigged and the trim worked great. After returning to the hanger, we broke out a bottle of champagne to toast the

culmination of 6,000 hours building time over a ten year period—champagne had never tasted so good!!

Following that first flight, I tightened up the engine baffling and learned that I should expect somewhat higher temperatures on a new engine. The second flight was completed on May 3<sup>rd</sup> and lasted one hour, so I really had a chance to explore the controls and handling of the aircraft. The radio, transponder, GPS, and other equipment also worked well so it was a very successful flight. As of June 6<sup>th</sup>, I have flown almost 18 hours, not quite half way through the 40 hours test flight period. During those 40 hours, I must stay within 25 nm of Mason and fly with a passenger. I am really getting to know that 25 mile radius area quite well! The airplane has an 180hp fuel injected Lycoming engine and is cruising at 150-160 knots without the wheel pants, so I believe the advertised 200 mph (175 knots) advertised cruise will be attainable. I have kept the wheel pants off during the initial testing so I can keep a close eye on the tires, brake lines etc.

In addition to Terry Lutz, Tim Martinson, and Keith Walker who contributed so much to the success of the first flight, I want to thank Jim Palmer for all his help and encouragement over the entire ten year building process. Jim's painting skills added a very professional touch to the airplane that I could not have accomplished myself. In fact, I don't believe the project would have ever been completed if I had not been an EAA member. The help, friendship and encouragement of many EAA Chapter 55 members kept me going when I would have been ready, willing, and able to quit. Only after you have built the airplane do you realize that the greatest skill needed is PERSERVERANCE.

In the end, it is worth every hour of work, every minute of frustration, and every second of patience. In my case, the end product is a great aircraft that handles very much like the T-38 military jet I once flew in the Air Force (although admittedly it is much slower and smaller) and it will provide hours of enjoyment for the rest of my life—**it doesn't get any better than that!**

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