



Flying My Waix to Oshkosh 2012

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July 1, 2013

Throughout the build of my Sonex designed Waix, I had grand dreams of future adventures with my airplane once it was finished. Throughout the countless hours of drilling, de-burring, and riveting, I couldn't help but think about where this cool little airplane would end up taking me. When would I be able to head towards upstate New York to visit friends who now live there? Or how about flying due south from central Ohio towards Florida for vacation, or to visit family? Like a lot of you, I have read many stories of pilots flying from one corner of the country to the next on an epic adventure, and I couldn't wait try it for myself one day!

As the construction of my Waix quickly drew to a close and phase one test flying began, I soon found out that this little aluminum sport plane was a complete blast to fly! Sonex Aircraft, based in the heart of homebuilt aircraft country in Oshkosh, Wisconsin had promised an easy to build, inexpensive to operate, and fun to fly airplane, and boy did they deliver! Not only did my Waix look great, but it more than delivered on those promises with its easy, fun to fly control feel and super low operating costs.

Looking back during the build of my Waix and all of the adventures I was hoping to have once the airplane was completed, I had known all along what one of the first long distance cross countries would be. After I finished my Phase I test flying period, I set my sights on a personal goal I had hoped to accomplish ever since I began building a kitplane, and that was to fly my homebuilt airplane to the greatest aviation event in the world, the Oshkosh AirVenture airshow.

For me, an added bonus was to fly my Waix to the place where it was born at the Sonex Aircraft factory is based at Oshkosh, across the field from AirVenture. As I had never been to a Sonex workshop, I was very excited that my wife and I could finally visit the factory and meet all of the wonderful people there face to face after talking to them on the phone for over 2 years. Sonex Aircraft provides wonderful opportunities for owners, pilots, and people who simply have an interest in their aircraft by hosting a wonderful open house on Sunday, the day before the show, as well as a Monday evening party for all who are interested.

I also knew I would not be alone on this trip. My father, also a pilot, had his own homebuilt airplane to fly up to AirVenture and we knew all along both airplanes would be making this trip together. His airplane, the sleek 4 seat Wheeler Express, is quite a bit faster than my Waix so during the weeks leading up to the big airshow, he and I would practice loose formation flying together to determine the best speeds and power settings for both airplanes in order to make -



the trip safely. As it turns out, my AeroVee powered Waix had no issues flying 130-135 miles per hour the entire trip, so the performance differences between airplanes became a non-issue.

As the time for AirVenture drew closer, I started looking over the Sectional Charts to determine routing and fuel stops for us along the way. If I drew a straight line from my home airport in central Ohio direct to Oshkosh, I would be spending a lot of the trip over the middle of Lake Michigan, and even though I fully trusted my airplane, the thought of an hour out over open water made me a little nervous!

It was decided that detouring around the southern shore, while adding time, was worthwhile as a safety precaution. Unfortunately that brought Chicago's large Class B airspace into the picture, which proved to be another issue with me as I do not have a Mode C transponder in my airplane.

As a result, another revision to the flight was in order which allowed me to stay south and west of the Mode C veil around the Class B airspace. By this point the trip length was nearing 350 nautical miles, so at least one fuel stop was to be added into the picture as well. After discussing the matter, we also decided that we wanted to arrive at the RIPON intersection (where the VFR arrival route into Oshkosh begins) with at least 2 hours of fuel remaining, just in case there was some sort of delay in the arrivals. Even though it may not have been necessary, this ultimately led to a second fuel stop on the way up to Oshkosh, giving us a 3 leg flight. After all the planning was complete, it was time to sit back, pack up the airplane, and keep a close eye on the weather.

After checking the weather on Friday, July 20th, we decided that all signs pointed for a good weather day on Saturday the 21st, so our "ground crew" (our wonderful wives) started the drive towards Oshkosh with all of the camping gear. Final checks and packing of the airplane was completed that evening, and we decided an early dawn departure into the cool morning air should have us arriving at Oshkosh by mid to late morning. Even though they weren't needed, alarm clocks were set and bedtime came early for a little sleep before our big adventure!

Leg #1: KMRT - C56

Arriving at the airport at around 0430, we were met with almost complete darkness. Thankfully the winds were calm, temperatures cool, and visibility was good, so my trusty Waix was pre-flighted one more time and pulled from the hangar. The plan was for me to takeoff around the same time my father started his engine, giving me around a 5 minute lead that he could slowly catch up.



The engine on my WaieX, the 80 horsepower AeroVee 2.1, cranked right up like always and after just a few minutes to let my oil temperature reach 100 degrees, I took the runway as the morning twilight gave me a beautiful horizon. Throttle smoothly to wide open, a few gentle corrections on the rudder, a check that my engine was running well, and before I knew it I was quickly climbing for my initial cruise altitude of 3000'.

As this was the longest cross country I had taken in my airplane, I spent a little extra time ensuring the engine temperatures and pressures were all in the middle of their normal ranges as I settled down on the first leg of my flight. Once the airplane was trimmed out and I was comfortable with how the airplane was running, it was time to start my navigation duties. For the trip I had recently purchased the Foreflight App for my iPad which I ended up using the entire journey. I loved the ability to track my position on the VFR sectional, look up airport information, and check fuel prices, all the while listening to music through the intercom.

After the first 10 minutes I hit my first checkpoint of the flight. Honda Motor Company is based in my hometown in central Ohio, and the huge factories made for an easy first checkpoint. I had prearranged to use this as a meeting location for my father, who by this time had taken off and was slowly gaining on me. Using our own air to air frequency, we were able to quickly join up and continue as a flight of two. Shortly thereafter we crossed from Ohio into Indiana and watched Fort Wayne slip under our right wing. Since we were using a common air to air frequency, we slowly started hearing other aircraft check on as they too were taking advantage of the perfect morning air.

As the second hour of our flight drew to a close, we reached our first fuel stop of the trip. Bult Field, located in Monee, Illinois, had a beautiful 5001' east/west runway that looked perfect for our first stop. By using the Foreflight software as well as available online resources, we also knew they had the cheapest fuel around, making our decision even easier. A normal traffic pattern, two notches of flaps, and a final approach speed of 70 miles per hour resulted in my wheels gently touching down on Runway 27, 2 hours 6 minutes after I departed my home base. After a quick taxi past a few rows of T hangars I found a deserted ramp area with no sign of life. Regardless, the airport did have a self-serve fuel pump which I used to quickly top off my fuel tank. During this time my father also chose to land and stretch, but as his airplane carries so much fuel, he elected to continue to the next stop before filling his tanks.

Leg #2: C56 - KRYV

After spending only 10 minutes on the ground at Bult Field, I was ready to continue the second leg of the journey. Thus far the flying had been smooth as the winds hadn't started picking up -



yet, but I knew those conditions wouldn't last all day so I quickly climbed back into the Waix for leg #2.

For reasons already discussed, my father and I had previously decided that another fuel stop would be the safest bet before continuing into the VFR arrival pattern for AirVenture, so we set Watertown Municipal airport in Watertown, Wisconsin into the GPS for future reference.

Firing my AeroVee back up, I was quickly taxiing back to Runway 27 for my second takeoff of the morning. Once again I lined up with the runway, slowly added full power, and after a few gentle corrections my trusty Waix was lifting me into the calm morning air over northern Illinois. This time my father didn't give me a head start so shortly after leveling off in cruise, my trusty wingman was holding loose formation off my left wing.

It was at this time I thought back to all the time my father and I spent together as we slowly built his airplane, and then shortly thereafter reversed roles as we built mine. Needless to say those were times in my life I will cherish forever as my dad isn't just a wonderful dad, he's also such an incredible person and friend to me. Truth be told, I was afraid of telling him that I bought my Waix kit for fear he would consider it a foolish idea, but I loved his reaction when he smiled instead, proudly stating "The world needs all the airplanes it can get!" Not long after, there we were; flying two airplanes we built with our own two hands together, heading to the world's largest airshow. If only all sons could be so lucky!

I quickly came back to reality as we neared the greater Chicago area. As previously stated, given the equipment I had installed on my Waix, flying through the Mode C veil surrounding the Chicago Class B airspace was not an option so it was time to pay attention to where I was going.

Consulting the GPS as well as the moving map display on the iPad, we were able to keep just outside of the Mode C veil as we slowly wound around the south then west side of Chicago. By previous agreement we kept our altitude low for this leg as I did not want to get a close up view of a Boeing airliner as they were arriving or departing from Chicago Midway or O'Hare airports. Shortly thereafter we were able to proceed direct to Watertown for another quick top off of fuel.

By the time we reached the Wisconsin border, we started listening to other pilots as they navigated towards Oshkosh for the big show. By some wonderful showing of teamwork, a line of communication was quickly formed from the people arriving at Oshkosh, all the way down into central Illinois and Iowa. The lead planes openly passed along pilot reports, weather observations, and other helpful information to those arriving later, which helped everyone as they approached the southern and central Wisconsin area.



After leaving the greater Chicago area, my father and I soon began our descent towards Watertown. We opened up our formation so there wouldn't be any confusion with the local traffic as we called in, one at a time, for landing. By this time the winds had picked up to around 8 knots, but as they were right down the runway this was hardly an issue. After a quick 1 hour 50 minutes, my wheels once again touched down and I quickly cleared the runway.

After landing we discovered that Watertown was a meeting place for a short wing Piper club who were in final planning stages to fly en masse to Oshkosh the next day. I parked my little Waix in a row of Piper Tri Pacers and Colts, all going through a last minute cleaning as the loving owners were preparing to fly the short hop to Oshkosh. This time it took a little longer to fuel both of our airplanes as Watertown offers a special fuel pricing for pilots heading towards Oshkosh, thus drawing a huge crowd. Once it was our turn, we quickly fueled our airplanes then pushed them out of the way for the next patiently waiting pilots.

Leg #3: KRYV - KOSH

Once the fuel bill was settled, my dad and I took one more look at the VFR arrival procedure to get into the AirVenture airshow. We had both done this arrival before but taking a few extra moments for a final review and frequency check is always a worthwhile idea.

Hopping back into our airplanes for the quick flight to Oshkosh, we both fired up our engines and taxied back to the active runway for departure. One at a time, both airplanes jumped back into the air as we turned north towards the RIPON intersection.

On this leg of the trip my father and I would not be talking to each other unless needed, since we were only looking at 40 miles to the RIPON intersection, which is where the VFR arrival into AirVenture begins. Per the arrival NOTAM, both sets of exterior lights were turned on and heads were on a swivel as we watched for other airplanes. Once we got to within 10 miles of RIPON we began spotting other airplanes, and I quickly fell in behind a Mooney who was slightly ahead of me. My father decided he was a little too close so a quick 360 degree turn was in order to provide the necessary spacing.

As I followed the Mooney north towards RIPON, I was watching for anyone else falling in line nearby as I didn't want to get in anyone's way. As luck would have it, we must have timed our arrival perfectly as the Mooney overflew the small town of Ripon and began following the railroad tracks northeast, with me following right behind. No one else materialized out of the blue at the last minute, so I felt confident that all was well. Slowly following the railroad tracks we were quickly at the FISKE waypoint where I was directed to turn north and set up for a right downwind for runway 27. I could hear my father being given the same instructions as he was only one or two planes behind me.



Once established on downwind for the runway, the person ahead of me decided that he was going to fly a gigantic pattern for landing despite the requests of the air traffic controllers. As I was instructed to follow, this led me into a long final, but given the light traffic on Saturday morning ATC was able to adjust to the situation. Rolling onto final approach, I was instructed to land on the Green Dot midfield down the runway, and was fortunate enough to perfectly hit that target!

And there I was, at the show! The last leg of the trip only took around 1:10, and as I shut down my engine for the last time I could breathe a huge sigh of relief! I had done it! I had flown my Waix to Oshkosh!

The Wonderful Show

As this story is more about the journey to and from the Oshkosh airshow, I will merely summarize our week long adventure of the actual show. First off, after my dad and I landed we both tied down our planes and were quickly met by our wives whom had been watching us land. My beautiful wife even snapped a picture of me landing right as I hit the Green Dot, so if anyone says I missed my target I have proof that I nailed it! Most of Saturday was spent setting up camp and watching as plane after plane arrived for the show.

The weather cooperated beautifully, and by the end of the day Saturday the airport grounds were already starting to fill up with recent arrivals.

Sunday began with lots of airplanes arriving as soon as the airport opened, and that flow of airplanes seemed to last all day. By prior arrangements, a lot of the aircraft type clubs choose Sunday as their arrival day, so it was a lot of fun watching large groups of Cessna, Pipers, Mooneys, and eventually J-3 Cubs arrive en masse. Part of the celebration during AirVenture 2013 was the 75th anniversary of the Cub which drew huge numbers of them to the show.

Also on Sunday, Sonex Aircraft hosts a homecoming celebration for anyone flying their Sonex to the show. The factory hangars are opened, and pilots are invited to taxi their little creations over to the factory and enjoy mingling with other recently arrived pilots and builders. My wife and I untied our Waix and taxied over late morning, joining in the celebration as other Sonex builders and pilots arrived at the factory. In early afternoon, the factory staff taxied the company demonstrator models over to the main show grounds, with all privately owned Sonex aircraft following right behind. I was thrilled to be able to park my airplane right next to the original prototype Sonex, now sporting a flashy yellow paint job. What a fun way to start the week!



By Monday, the official first day of the show, the airport grounds were nearly at capacity as I watched planes continue to arrive. Under a sunny, cloudless sky, the sweet sounds of airplane engines could be heard all day. As day turned into evening, my wife and I drove the car back over to the Sonex factory for their evening Hangar Party. We had a wonderful evening meeting and getting to know other Sonex pilots, builders, as well as the gracious factory staff who proved once again to be outstanding hosts. What a wonderful group of people, and what a wonderful club to be a part of! For my wife and I, this was more proof that we chose the perfect airplane to build and fly.

Over the next few days, I split my time between hiking around the airport looking for friends, sitting by my Waix answering questions about the design, and relaxing in the shade. AirVenture seemed unusually hot that year, so shade under a tree or airplane wing was at a premium. Regardless of the heat, I loved every minute of it and was honored that my airplane was finally at the show.

On Thursday, we decided that the weather looked promising for a Friday trip home. A frontal system was forecast to arrive in the Oshkosh area Friday afternoon, so getting out a head of that was our best bet. Once decided, the rest of the evening was spent packing and preparing for the trip home.

Leg #4: KOSH - C56

Waking up early on Friday morning, July 27th, we were met with cool, calm air and clear skies as our tents were quickly broken down, airplanes packed, and untied in preparation for the journey home. My father and I obtained our required departure briefings, and promptly returned to our airplanes in order to head home.

After saying goodbye to everyone, including a big slap on the back from Sonex CEO Jeremy Monnett, it was time to fire up our engines and head south for the Chicago area. My dad fell in line behind me for departure, and after a long taxi down to runway 36, we were both given clearance for takeoff. I lined up with the runway, slowly added full power, checked to ensure I had a good running engine, then, quickly found myself climbing into the calm Wisconsin air.

A quick right turn per the departure procedure angled me towards the shore of Lake Winnebago as I stayed low to keep clear of faster traffic. After I was clear of the area I could maneuver at my discretion, so after a turn south and a quick climb to 3000' I began heading towards the Chicago area. By this time my dad was flying off my wing, following me as we headed south.



On this portion of the trip, we both felt comfortable with one fuel stop, and after having such good luck with Bult Field in northern Illinois on the trip up, that became the obvious choice for the return trip. For me, that was right at the halfway point of the journey so I would not need to worry about getting into a low fuel critical state.

After flying due south for an hour, our flight of two slowly descended as we neared the Mode C Veil around Chicago. Using our GPS receivers and backing up our position on the map, we once more navigated around the Chicago airspace and set our sights for Bult Field. By this time there were a few scattered rain showers in the area, but with good visibility we were easily able to stay away from any storms.

As we entered the traffic pattern at Bult Field, we could see another rain shower slowly approaching the airfield which would not give us much time for fuel before it hit. I wasn't worried about my airplane getting rained on, but knew if I couldn't depart prior to the rain shower reaching the airfield I would be stuck there until it passed. My dad, having topped off his main fuel tanks and adding additional fuel in his auxiliary tanks, chose to orbit south of the field well clear and wait for me to refuel.

Once again, two notches of flaps and holding 70 miles per hour resulted in a smooth touchdown on runway 27. This leg was the longest of the trip at 2:36 from takeoff to touchdown. Keeping my speed up, I chose to exit the runway right next to the fuel pumps to minimize my time on the ground. Thankfully I was the only one getting fuel so after a record 6 minutes, I was yelling "Clear Prop" and hitting my starter button. A quick taxi back to runway 27 and I was ready for the last takeoff of the trip.

Leg #5: C56 - KMRT

As I took the runway for takeoff, I could see the rain showers were still a few miles in the distance which gave me just enough time to leave the area before the rain started. Just as always, I slowly pushed the throttle in, made a few small tweaks with the rudder, and felt the wheels leave the runway for my last takeoff of the trip. As I climbed, I quickly made a turn to the east, away from any rain as well as towards home. My father met back up with me as we set our GPS receivers for our home base in central Ohio.

Any adverse weather issues were well behind us by this point, but by this point in the day, the heat of the summer finally started making our flight a little bumpy. At least it was bumpy in my 1000 pound Waix; my father, with his higher wing loading, hardly noticed it!



Continuing along, we quickly reached the Indiana border, then soon after reached our home state of Ohio. Out of sheer boredom I followed my dad as he slowly climbed up to 3500', our highest altitude of the trip. Soon we were letting down for the traffic pattern at our home airfield, so I offered my dad a funny salute and broke formation in a big 360 turn, giving him plenty of spacing for the traffic pattern.

My dad entered the downwind leg for runway 27 at home, and after he was on the ground I slowed to 100 mph for downwind, slowed to 90 mph on base, and then once again found that the perfect combination for my Waix is two notches of flap and 70 mph on final. Nose up in the flare, throttle slowly closed, and I smiled as the wheels gently kissed the runway for the last time, 2:20 after takeoff.

After parking my Waix in front of the hangar, I pulled the mixture, flipped off the switches, then sat there for a moment thinking about the trip as a whole. I couldn't help but smile as I climbed out of the plane, pulled it into the hangar, and wiped off the summertime bugs.

Final Thoughts

Overall, I couldn't be happier with flying my Waix to Oshkosh. Over the course of just over 10 hours flight time, I had no issues with the airframe or engine on my airplane. With all of the taxi time and my poor recording skills, I never calculated a final groundspeed average, but I can tell you that my Waix equipped with the 80 horsepower AeroVee 2.1 engine normally gave me a no-wind groundspeed of 130 miles per hour, burning around 5 gallons per hour. I truly had the trip of a lifetime throughout the week, and cherished visiting old friends while making new ones. I'm already planning on taking my Waix back to Oshkosh again this summer, and hope to make this a yearly occurrence!