

CROSS COUNTRY

FLYING ACROSS THE LOWER 48
IN A LIGHT-SPORT AIRCRAFT

Story and photos by Phil Simon, EAA 443536

WHEN PHIL SIMON, OF SAN RAFAEL, CALIFORNIA, LANDED AT THE ELKTON, MARYLAND, CECIL COUNTY AIRPORT (58M) ON JULY 21, 2008, IT MARKED THE END OF A THREE-YEAR QUEST TO FLY TO EACH OF THE LOWER 48 STATES. →

It turns out, EAA announced on July 25, 2008, that Phil is the first sport pilot to accomplish this, and his experimental homebuilt Sonex is the first light-sport airplane (LSA) to do so, as well. We asked him for his thoughts about this accomplishment. Here's his report.

Flying at 1,000 feet offers a wonderful close-up of America. I can't think of a better way to sightsee, no matter what kind of airplane you're flying. For most of us, it's hard to take two or three weeks off to do this. For me, it happened after I retired.

Like many Americans, I've had financial setbacks over the last eight years, but it was important to me to have an airplane that lets me do things like this. Fortunately, in my EAA chapter, I found an airplane partner, Jerry Bassler. We built the Sonex in my garage, and we split expenses, such as the hangar and insurance. Since our airplane cost just \$30,000 to complete, I'm only into it for about \$15,000. For the price of an economy car, I have a great airplane I've flown more than 20,000 miles and that's also capable of doing basic aerobatics—all the while burning only 4 gallons per hour.

It took me three flights over three years to fly to—and land in—all the lower 48 states. In 2006, I flew from Oshkosh back to the San Francisco area (Jerry had flown to Oshkosh); in 2007 I flew a large 32-state loop; and in 2008 I flew to the northeast to land in the last 12 states, and then back to Oshkosh. With better planning, I could have done it all at once, but I didn't start out to fly to all the lower states. My original plan was to fly my Sonex to Alaska, but, since I'm flying as a sport pilot, I can't fly into Canada. In order to do so, I'd need specific written permission from Transport Canada and at least a third-class FAA medical certificate.

Instead, I changed my plans. By doing so, I found myself on the biggest adventure of my 43-year flying career.

ROUND-ABOUT ROUTE

On my 2006 trip I flew 2,100 miles and made 19 landings in 10 states during four days of flying, logging a total of 24 hours of flight time. On my 2007 trip, I flew 6,800 miles and made 53 landings in 32 states in 15 days, for 67.6 hours of flight time. Last year, I flew 5,200 miles, making



Phil Simon (with his wife, Jan) wanted an inexpensive airplane that was still capable of long adventures. So far, he's flown the Sonex more than 20,000 miles.

Crossing the Country

FLYING ACROSS the United States was the adventure of a lifetime for Phil Simon. Along the way, he met some great people and saw a variety of memorable sights.

1. Alexander Salamon Airport (AMT), West Union, Ohio. I landed at twilight to find no services—not even for my cell phone. The county sheriff finally arrived to drive me into town.

2. Gallup Municipal Airport (GUP) in New Mexico. I listened to KNDN, Navajo Radio. They play country music, but all the advertisements are in the Navajo language.

3. Middle Georgia Regional Airport (MCN), Macon, Georgia. A friend who is a U.S. Air Force pilot gave me a tour of the KC-135 tankers at Warner Robins Air Force Base.

4. Amarillo, Texas. My hotel was the home of a Texas 72-ounce steak. That's 4-1/2 pounds—more than the stake-out kit for my airplane!

5. Double Eagle II Airport (AEG), Albuquerque, New Mexico. I taxied to the ramp, right between a B-25 Mitchell bomber and a P-47 Thunderbolt fighter.

6. Gettysburg Regional Airport (W05), Gettysburg, Pennsylvania. The friendliness of the local pilot who drove me into town and then picked me up the next day contrasted with the somberness of visiting Gettysburg National Military Park.

7. Wittman Regional Airport (OSH), Oshkosh, Wisconsin. At EAA AirVenture Oshkosh 2008, I gave several forums at the Affordable Flying Center on building and flying my airplane.

8. Niagara Falls, New York. I tried to take photos of the falls while complying with the special flight rules and avoiding entering Canadian airspace.

9. Clermont County Airport (I69), Batavia, Ohio. Sporty's Pilot Shop updated my sectional charts at no cost because I'd purchased the charts from them.

50 landings in 28 states in 14 days, for 46.5 hours of flight time.

I planned the trips with an American Automobile Association (AAA) map of the entire country, looking for roads I could follow through the Sierra and Rocky Mountains—namely Interstates 80, 40, or 90. Once I made it east of the Rockies, I figured I could go direct almost anywhere. I used AAA regional and state maps to further refine my routes, marking each off into 200-mile segments for suitable fuel and overnight stops.

I finalized the routes on sectional charts, and on departure, I printed out flight plans showing time, distance, and fuel burn. I created these using the flight-planning program in the members-only section of the EAA website. I clipped them to a kneeboard to make sure things were going as planned. Generally, I flew exactly where I'd planned in the weeks prior to my flight.

Along the way, I didn't use VORs. Instead, I flew from airport to airport using my GPS 100 percent of the time. The GPS paid big dividends, too. I had some early concerns about flying around at low altitudes in the

But I particularly loved its terrain feature; it's much more detailed than the sectional charts, and I was able to determine the best routing in advance of getting to the mountains. I flew through the same pass in the Sandia Mountains that the interstate uses near Albuquerque. To keep under the Class C airspace, I had to



Low-and-slow is the best way to sightsee, Simon says. It offers economical fuel consumption and amazing sights, including the Chicago skyline along Lake Michigan.

While my Sonex has a range of almost four hours, I don't. I was always glad to stop, stretch, buy 8 gallons of gas, and chat with the locals.

Midwest and running into a radio tower, but with the obstacle database in my GPS, I could easily avoid them. Before each trip, I'd go online and pay \$35 to download the current version. It also helped as I flew through the Los Angeles Special Flight Rules Area on a visual flight rules (VFR) route that took me right over Los Angeles International Airport. On the other hand, it couldn't have helped me predict the temporary restricted areas around the forest fires while flying across the Sierra.

be low. Air traffic control couldn't get me on radio or radar, and I surprised them when I popped out of the pass on the west side—just a few miles short of the city, the international airport, and the temporary flight restrictions for the annual hot-air balloon event that was in full swing. Situational awareness is everything.

TRAVELING 'LIGHT'

Along with the GPS, I carried maps, charts, and all three volumes of the invaluable *Flight Guides*—a library

totaling almost 15 pounds—on the seat next to me on top of my personal gear. For comfort in the cockpit, I mounted a bicycle water-bottle cage for water, and I carried a small soft-sided cooler with blue ice, a few beverages, yogurt, cheese, granola bars, and some fruit. And speaking of comfort, we added a wing-leveler

during construction to make long flights like these easier.

I felt it was important to be self-sufficient and prepared for almost anything on my flights, so I didn't travel light. Most of the gear I carried I'd collected in anticipation of flying the Alaska Highway. I put together a complete tool kit—17 pounds' worth—including a torque wrench, socket set, open-end wrenches, pliers, screwdrivers, tire, tubes, air pump, spark plugs, oil, air filter, and battery charger. That preparation was worth the weight. On my second trip, a steady 45-knot wind in Gettysburg, South Dakota, blew the canopy out of my hand, resulting in a large crack; I fixed it days later in Kansas City with the help of fellow Sonex builder Gus Schlegel, and then had a meal of the best ribs of my life.

Still, the weight added up. The tie-down kit, the stake-out kit for EAA AirVenture Oshkosh, the rain-proof canopy cover, the control surface locks, and pitot cover weighed another 4 pounds; a complete survival kit weighed 15-1/2 pounds; and 2 gallons of water weighed 16-1/2 pounds. My tent, ground cloth, air mattress, sleeping bag, stove, and freeze-dried meals added another 10, and while I carried the absolute minimum personal gear—a laptop, digital camera, cell phone, chargers, shave kit, a few pieces of clothing, and a small electric fan for the non-air-conditioned dorms at the University of Wisconsin-Oshkosh—it still totaled nearly 20 pounds. Add in the spare handheld transceiver, extra batteries, headset, tow bar, and cleaning supplies for the plane and the canopy. Next thing I knew, my plane was loaded to its maximum gross weight.

For all of the flights, I averaged a fuel burn of slightly over 4 gallons per hour at 100 mph, in spite of flying heavy at low altitudes. I never flew higher than 1,000 feet above ground level (AGL); I could have had better performance in a lighter airplane, flying at higher altitudes, leaning the engine, and even finding



Flying the New York-Hudson River corridor was the highlight of his adventures, Simon says, with its close-up views of Manhattan, Ellis Island, and the Statue of Liberty.

some tail winds—and my airplane will fly much faster than 100 mph at a higher fuel burn—but I felt this was a good all-around compromise. I was willing to give up performance to see the United States from down low.

Besides, cost was a big concern for me. I attempted to do the trips on a low budget, and efficient fuel use was part of that. As it was, my

biggest expense was fuel. Next were my accommodations; I'm not much for camping, and although I carried a lightweight tent and sleeping bag, I stayed at moderately priced motels. They cost about half as much as my gas tab, and my meals were about half the motel costs.

IN HIS SIGHTS

The most difficult part of flying around the United States for me wasn't crossing the Sierras, but rather crossing the Rockies. On the three trips, I crossed them several times, in both directions. I found that I much preferred crossing up north, in Idaho and Montana, or down south, rather than across the middle. It was difficult to fly over Wyoming during the summer, as most airports are higher than 7,000-foot elevation, with density altitude often more than 10,000 feet. In fact, on my first flight from Oshkosh to the Bay area, I couldn't find the Rock Springs-Sweetwater County Airport (RKS) in Wyoming; it was quite a bit above me on a plateau, and I had to climb to get to airport elevation. Talk about "flying low."

Remember, I wasn't flying a Cessna 182. I was flying a 700-pound LSA



Simon's GPS was essential; crossing the pass into Albuquerque, it kept him away from Class-C airspace, the international airport, and temporary flight restrictions for a balloon event.



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powered by a modified VW engine, and the sport pilot rules don't allow flight above 10,000 feet. I found that if I stayed over Interstate 80, I could climb faster than the gradient of the road. On flying days, I'd stop flying by noon or 1 p.m. to avoid turbulence; I learned that after the first day. It's no fun bouncing against the shoulder straps for long periods of time. For that matter, given the summer temperatures and thunderstorms, September or October would probably have been a better time to make these trips. I also flew for only two hours at a stretch. While my Sonex has a range of almost four

hours, I don't. I was always glad to stop, stretch, buy 8 gallons of gas, and chat with the locals.


That was the joy of the trip, and there was plenty of it. The manager at Iowa's Shenandoah Municipal Airport (SDA) came out on her day off to help me move the airplane into a hangar so I could work on it more comfortably. I was able to attend the American Sonex Association's annual fly-in and gathering in Crossville, Tennessee, and later take a valuable day of spin training with aerobic instructor Catherine Cavagnaro at Franklin County Airport (UOS) in Sewanee, Tennessee.

There were unbelievable sights, too: the Swift Museum in McMinn, Tennessee; the Old Rhinebeck Aerodrome in Red Hook, New York; the National Museum of the U.S. Air Force at Wright-Patterson Air Force Base in Dayton; and the Henry Ford Museum in Dearborn, Michigan. The Bonneville Salt Flats in Utah look like the surface of the moon, but the coast of Maine and the shore of Lake Michigan near Chicago definitely do not. The absolute highlight was flying the Hudson River VFR corridor, along the western edge of Manhattan and past Ellis Island, the Statue of Liberty, and the Verrazano-Narrows Bridge.

These flights have been the most fun I've had flying, and they were all done in my Sonex, which was designed as a recreational airplane, not as a cross-country airplane. Even so, I found it to be a wonderful traveling machine.

Still, I don't know if I'll do it again, if only because of the cost. But if I did, I'm sure I could fly to all 48 states on one flight in less than three weeks. It would take detailed planning, and I'd do it in September or October instead of July and August.

Instead, I dream of someday flying to Alaska, my—and our—49th state, via the Alaska Highway. Until Canada recognizes the sport pilot certificate, though, that will have to wait.

Fortunately, I've got plenty of good times to relive between now and then. 

An air transport pilot, **Phil Simon** has flown throughout the world. He has more than 17,000 hours of flying time and type ratings in several Boeing aircraft, including the B-777. He and a partner built the Sonex in 2006. He is currently building a Sonexai.

For more details about Phil's cross-country adventures, visit www.SonexAircraft.com, click on "Press Room" and read the "Sonex Flying Stories."



To beat turbulence, high density altitudes, and heat—particularly in Nevada—Simon landed early each afternoon; still, his trips were the greatest adventure of his flying career.

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