

An aerial photograph of the Chicago skyline, featuring numerous skyscrapers and the city's layout along the Lake Michigan shoreline. In the foreground, the wing and tail section of a large commercial airplane are visible, suggesting the photo was taken from a high altitude. The city's architecture is dense, with a mix of modern glass-fronted buildings and older structures. The Lake Michigan water is a deep blue, and a large white ship is visible in the lower left. The overall scene is bright and clear, with some light clouds in the sky.

Oshkosh 2023 — The Longest Ride Home

Wrap-Up: Oshkosh 2023 and the Longest Ride Home

By Mike Jones

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100LL has been getting a bad rap recently, somewhat unfairly to my mind. Yes, it contains small amounts of lead. Yes, burning avgas contributes to global warming. And yes, it is ferociously expensive. But are those deficiencies, as important and deleterious as they are, sufficient to condemn a product which has served the aviation community very well for more than fifty years?

Personally, until something better comes along, I stand unrepentant in support of 100 low-lead. The high-compression 520-cubic inch Continental engine on my Centurion loves it, and that 400-pound hunk of steel has dragged me and my Cessna well over a quarter million nautical miles, reliably, safely and reasonably speedily. I've made four trips from one ocean to the other, flown into the flight levels, caught the Jetstream and logged a groundspeed of 258 knots, and flopped down into Oshkosh a dozen times. All of that adventuring took only about 31,000 gallons of avgas.¹ All in all, that strikes me as very efficient, almost penurious, and in the big scheme of things there are

¹ 31,000 gallons sounds like a lot until you compare it to jets. A 737 Max burns 750 gallons per hour so my entire aviation career would be exhausted in about 40 hours. A Boeing 767 burns 9,000 gallons flying coast to coast, so it would run out of my avgas gallons about half-way home on just the fourth flight. I flight plan for 18 gallons/hour in cruise, which produces about 165 knots true, keeps the engine cool, and still allows me to carry any mix of up to six people and/or 1,600 pounds of payload.

hundreds other activities far more damaging to the environment than G.A. flying.

My Centurion is a beast of a plane, an SUV of the skies. Fuel is stored in four tanks: two 45-gallon main tanks in the wings and two 18 gallon Flint tip tanks. This configuration could (theoretically) keep me in the air for seven hours and over 1,000 miles. When the AWOS spews nasty minimums, it's nice to have hours of options sloshing in the tanks.

I rarely use all that capacity. I often depart with just 90 gallons and sometimes much less. Most of my flights are between one and three hours, up and down the East Coast. The longest I have ever sat in the left seat was a headwind-plagued effort in 2005 from Hartford, CT to Pinehurst, NC which took 4.2 hours at 72 gallons. With an old ARC autopilot, it was exhausting and nerve-wracking.

But when the Titan fuel truck showed up at our campsite at Oshkosh 2023, I told the guy to “top 'er off.” We squeezed every drop of 120 gallons on-board because we were planning a “personal best” record-setting flight: all the way from Oshkosh to our homes in North Carolina, non-stop. If we could pull it off, weather and ATC permitting, it would be about 775 nautical miles in five hours. We were going to demand the utmost from that Continental engine and the low-lead it loves.

Sleeping Late

My co-pilot Nick Phan and I had been up late Wednesday night. We had dined well at “Los Tres Amigos” Mexican restaurant. We had watched the twilight airshow with an adult beverage or three, dew-covered cool when plucked from the Yeti. Settled deep into folding camp chairs, we entertained ourselves and our colleagues at the Cessna Base Camp until the wee hours. Oshkosh is great fun when the sun goes down.



Not so much the next morning. When the rooster crowed on Thursday morning the whole world was in slow motion. My head was granite-like on the pillow. A muskrat had died in my mouth. Small conversations made my ears pound like a kettle drum. A spartan breakfast with lots of strong coffee began to lubricate the gears in my brain but it took a long, wasteful, steamy shower to finally get this old guy firing on all cylinders.

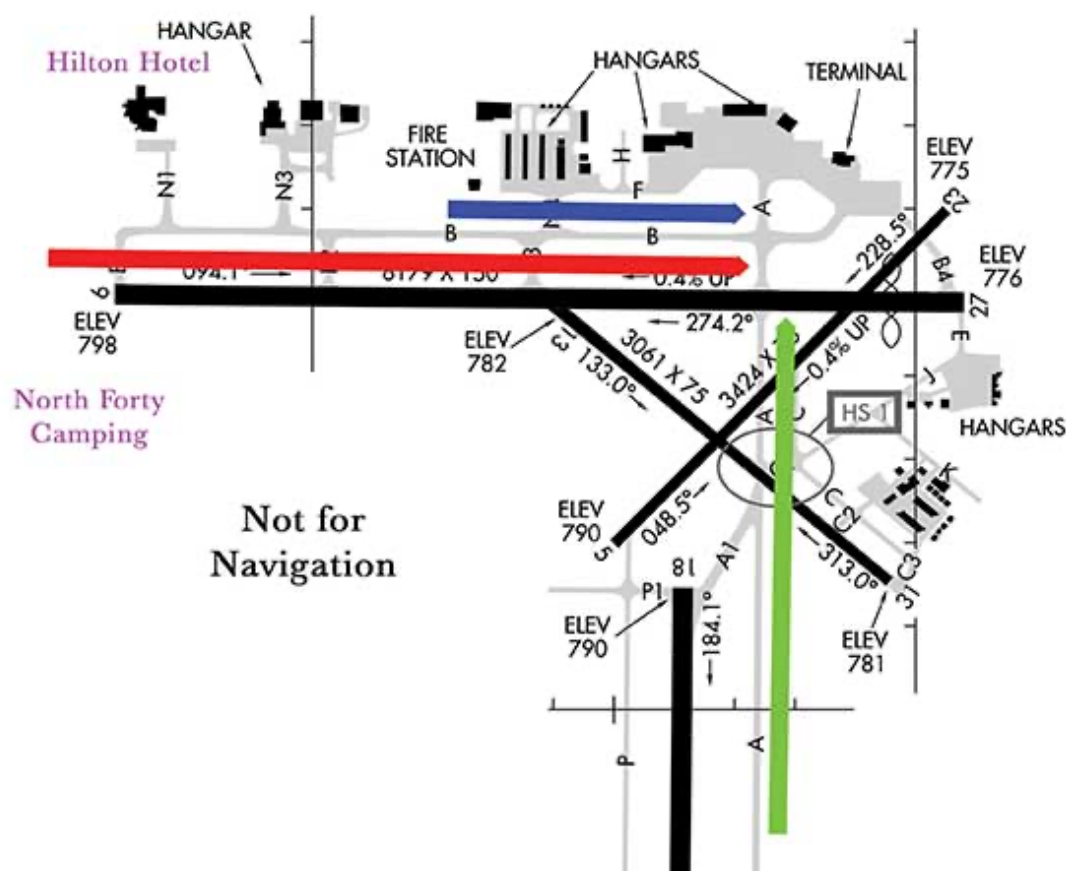
Then came the dreary work of breaking down our camp. Tents glistening with dew had to be furled into their annoyingly too-small nylon bags. Sleeping bags, pillows and duffles were repacked and reloaded. Cameras and coolers were loaded last, so to be accessible in the air. By the time that aforementioned Titan fuel truck arrived and fed the Cessna her breakfast of 100LL the sun was high in the sky. It was a perfect day: blue skies and gentle winds. The Oshkosh runways were buzzing with noisy departures and bouncy arrivals.

Nick and I preflighted the plane and briefed our plan. With the help of some neighbors we pulled '91N out of our campsite. At precisely 10am, we fired up the Continental and taxied towards the runway, waving at our neighbors and smiling at the marshals in their bright yellow vests. Which is when things came off the rails.

Last in Line

It seems that hundreds and hundreds of other pilots and planes had precisely the same idea, using precisely the same schedule. In early visits to Oshkosh, the longest wait I had ever endured to depart was perhaps ten minutes. On this day, a long line of shiny wings and spinning props stretched before us. What was going on?

Taxi Diagram for G.A. Departures at KOSH, July 2023



Here's a rough approximation of the departure craziness Nick and Jonesy endured on Thursday morning. They started from the North Forty, and taxied approximately an additional half-mile (not shown on this chart) to the west, and then up and around the grass over-run at the west end of Runway 27. The Hilton Hotel is at the western end of the pavement at Taxiway B1; the runway itself is 6,127 feet long. Nick and Jonesy taxied roughly along the red arrow, on the grass. Heavier airplanes were allowed to taxi on the paved surfaces along the blue line, while Homebuilts, Vintage, and South Forty campers trundled up the green arrow from the south. Everybody and everything converged on Runway 27 at Taxiway Alpha.

Well-rehearsed and unfazed by the volume of traffic, the marshals waved us the *wrong way*, the *long way*, around the western end of Runway 9/27. The next set of marshals, some on scooters, focused us into a tidy string of lumbering aluminum elephants, nose to tail. Like the drive-thru at Starbucks, it was a long, slow line.

For a few minutes, Nick and I didn't quite comprehend the magnitude of the event into which we had inserted ourselves.

"Maybe somebody had a mechanical problem," we speculated as we waited, the sun cooking us through the windscreen. "Could there have been a collision on the ground?" we wondered. Our next hypothesis, "Maybe they've closed the runway for an emergency," was promptly torpedoed as Bonanzas and Mooneys roared into the sky off our right wing.

Eventually we bumped over Taxiway Bravo-1 and sluggishly rolled in front of the Hilton (see the map of Runway 27). This was when we made the alarming discovery that in addition to the planes in front of us, on the grass, there was a matching queue of aircraft on Bravo, the parallel taxiway. Both lines had thousands of feet of hot and sweaty airplanes in them.

Just when things couldn't get worse, Nick glimpsed bad news: another enormous line of aircraft was approaching our runway. This herd was rolling north on Taxiway Alpha, which parallels the main north/south runway at Oshkosh. These interlopers to "our" runway were from the South Forty and other distant campgrounds. Checking the distances on the charts and doing some math in our heads, we estimated 160 airplanes were queued to take off.

By now some folks were getting worried, impatient, or both. Cylinders were hot, oil was thin, tempers were frayed. A Mooney in front of us shut down and clambered out of their cramped cockpit, opening the cowling. An entitled fellow from an unseen plane behind us walked up, talking to marshals and gesticulating aggressively, as if his frustration could somehow move dozens of



This shows the huge grass overrun at the west end of Runway 27; the Cessna Base Camp is under the wing on the left side of the photo. Jonesy and Nick raised the landing gear and started a gentle turn to the northwest as they departed over a line of at least ten airplanes waiting to depart. Those planes are at least 7,000 feet from Taxiway Alpha, and probably will be in line for the same eighty minutes that Jonesy and Nick had to wait.

planes out of his way. Nick monitored our oil temperature as I worked the RPMs, rolling and stopping, rolling and stopping, dozens of times.

In front of the Oshkosh FBO, Taxiway Bravo widens a bit. The marshals directed the planes in our line to do-si-do, slowly and carefully, from our grassy avenue over to the smooth concrete. There we perched two-by-two, as if we were marching into Noah's ark, creeping to the departure end of Runway 27.

Eventually, we were marshaled onto Runway 27 for departure. We hung to the right-side of the runway while the folks coming from the south were assigned the left side. One by one, the marshals released us for take-off. We followed a V-tailed Bonanza, perhaps five seconds and a hundred yards ahead

on the left, at about 11:20. Our taxi was about eighty minutes long. Not a promising start to our record-setting flight.



Making a long trip even longer was the requirement of the Oshkosh “Notice” for all aircraft to depart to the northwest until well clear of the incoming traffic on the FISK arrival into Oshkosh. Nick and Jonesy programmed a conservative departure routing into the GPS (blue line), expecting a fairly slow climb on a hot summer morning up to 4,500 feet. The red arrows show the incoming FISK arrivals which usually fly at 1,800 feet.

Up and Away, the Wrong Way

The Oshkosh “Notice” directs airplanes departing on Runway 27 to turn to the northwest as soon as possible and remain at 1,500 feet or below. Northwest is exactly the opposite of the direction Nick and I wanted to fly. We understood the rationale: aircraft inbound on the FISK arrival were crossing over the same hunk of Wisconsin at 1,800 feet. Dutifully, we followed the rules while worrying about wasted fuel. We stayed low. My eyes were outside the cockpit while Nick monitored traffic on Foreflight, and the patient Continental tugged us towards emptier skies.

Eventually we cleared the “double bubble toil and trouble” of Oshkosh and began a VFR climb, turning to the southeast with little baby-steps. The ADSB showed space growing between the departing aircraft. Slowly, we began to relax a little. We nailed the amusement park waypoint between Chicago and Milwaukee which set us up for the Chicago lakefront flyway, precisely reversing our arrival of the week before. The steel skyscrapers of the Windy City sparkled and shimmered in the late morning sunlight as at least a dozen G.A. airplanes trundled southward over the lake.



Past Gary, Indiana (thanks again, friendly and patient controllers at GYY) we climbed to a normal cruising altitude of 7,500 feet. I trimmed and leaned and tweaked and fussed. Nick, for the first time on this trip, felt comfortable taking the controls and enjoyed moving the heavy airplane around the sky. Mr. Garmin told us we had three-plus hours to go.

During my flight planning, I had noticed the forecast included the chance of a cold front moving across our route. As today's forecasts so often are, that prediction was spot-on. The first sign of that weather was a layer of stratocumulus forming below us. Nick and I talked about the different kinds of clouds and the insights they offered. My prediction? The clouds would thicken and rise, becoming a problem for VFR flyers before we made it to Ohio.



The weather radar showed two promising build-ups blocking Nick and Jonesy's route home. As young build-ups, they weren't showing any convective traits at this time and they were about thirty miles apart, so our two flyers flew between the goal posts and saved a few minutes. The scenery, being so close to such turbulent, bubbling air, was spectacular.

I wasn't too far off the mark. The very cordial controllers in Cincinnati gave us a "direct destination" IFR clearance at 7,000 feet. We plunged into the cold front and drove old '91N right into a vertical wall cloud. Because there was no convective activity associated with the front, the ride was smooth, and Nick was thrilled with another new experience to add to his logbook. About the middle of

West Virginia, we popped out of the front into smooth but warmer skies, loaded with humidity.

Sunny days and humid air are a perfect combination for thunderstorms. The weather radar showed two young plumes brewing on our nose, looking like the pillars of Hercules, perhaps forty miles ahead and thirty miles apart. With tops of only 15,000 feet or so the towers looked like they were struggling to get organized. We requested and were approved for a slight deviation and “split the goal posts.” Our wingtips were almost in the clouds while the storms fretted and fumed over our heads. Nick grinned from ear to ear.

Once we crossed the border into North Carolina, ATC gave us a descent. Instantly the air started to warm, reminding us that summer heat was still running strong in the Deep South. We swung into the pattern at Pinehurst and made a perfect, center-line landing with the stall warning horn blaring. Even Nick, flush with the skepticism the young have for the elderly, gave my touchdown two thumbs up. It was good to be back home.

Setting the Bar High

As for personal bests, this set a new standard which I may never break. The total flight, including the long westward loop out of Oshkosh, was 775 nautical miles. It took four hours and forty minutes, with an average speed of 164 knots. If one includes the lugubrious eighty minutes of taxi time, the total trip was almost exactly six hours. But we did not push the envelope too hard: we landed with one hour and fifty minutes of avgas remaining, thanks to those remarkable Flint tip tanks.

Which brings me back to my love for avgas. There is nothing, absolutely nothing, which can compete with its efficiency and cost-effectiveness. Today's aviation fuel is a marvel of energy-density. While expensive, it is available anyplace in the U.S. and Canada. It allows high-compression engines to rock along, even up into the flight levels. It is the enabling technology that allowed

me to have delivered more than 100 AngelFlight missions and 800 Young Eagle flights.

Someday, GAMI or somebody will have a drop-in 100LL replacement which will be widely available at an affordable price. Until that happens, I'm loving the 31,000 gallons of dead dinosaurs in my fuel tanks.

About the Author

Mike Jones is a 4,000 hour commercial-rated pilot who has more than 50 aircraft types in his logbook. His pride and joy is a Cessna T210, which has carried him to every corner of the U.S. and Canada for more than twenty years. But he was surprised when he brought the Centurion into the shop after Oshkosh. In next month's edition, he'll explain the scary discovery the maintenance guys made when they looked under the cowl.



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