Little Wing LW5 Autogyro Transcontinental Flights

Woodstock's Transcontinental Flight West to East (Part 2)

by Andy Keech

From West to East
San Diego to Kitty Hawk

Friday, October 17, 2003
Montgomery Field, San Diego, to Eloy, Arizona

It was 7:00 a.m. and Montgomery Field was under a marine layer which was not expected to lift before 10:00 a.m. So I decided to take off at 11:00 a.m. flying west over La Jolla, and briefly over the Pacific before turning east under Jerry's transponder, and heading over the mountains into the desert of El Centro.

Jerry again had difficulties in keeping me in sight. We used visual reports to describe my location and this was partly successful. However, when I used GPS distances, we had no success at all. Jerry eventually realized that I was measuring from the airport, and he was reading from the VOR. As these were at different locations, we decided to part company with an "Adios Amigo."

I refueled at Imperial, topping off with 20 gallons, as there were no fields with gasoline between there and Eloy, and I knew I had a 10 kt headwind. On the approach to Yuma, I came upon the great sand desert again. The route I crossed had occasional irrigated fields, which were in such contrast to the dry, almost treeless mountains covered with saguaro cacti. There were open aquaducts that ran for miles. One wonders about the evaporation rates of these open systems.

Dave Gillis' forecast was for a high pressure area that extended well into the next few days and all the way across Texas. The downside was that the clockwise flow around the high was a headwind for me, but, nonetheless, it was a good trade-off. I could reach Eloy with or without the headwind, and I planned to stay there overnight in any event.

Saturday, October 18, 2003
Eloy, Arizona to El Paso, Texas

I was at the hangar at 5:40 a.m. Pat, the acting airport manager, rode up on a bike, emerging from the dark to open up, as arranged. He mentioned that we had met on a drop zone in Virginia in the late 70s. He also remembered that I was not allowed to jump because I was a civilian. However, I was allowed to take photos. I had been invited by a special operations group, but I never knew who, or why. Pat was not forthcoming either.

Zane gave me two 7/16ths wrenches in case I needed to adjust the belt tension on the prerotator, and wished me the best. His generosity doubled the tools I had on board. The others were two ½" wrenches. He also replaced and secured the allen screws in the prerotator with loktite.

Woodstock was again off at first light, heading into the sun about to rise over the mountains. It was difficult to read the instruments and I resorted to using the flashlight. Headwinds were again high, and ground speed down in the mid 50 kts.

As I approached Deming, I went lower to pick up some speed, and to land for fuel as it was getting low. From there it was a short leg to El Paso.

At El Paso, I topped off, and prepared to depart to Winkler, on a more direct path through the Guadalupe Pass, and the dry west of Texas. Both were sights that I wanted to see.

However, on starting the engine, I noticed that there was unintentional prerotation, that indicated that the belt was under tension. So Andy Gerber and I loosened the belt and I resumed the start. Within seconds, the EIS warning light came on, indicating oil pressure at 72 lbs. As this was in the normal range I knew I was getting a false alarm. I reset the upper limit of the EIS to 102 lbs, and then tried to get back to the normal display. I was unable to, in part because I had forgotten how, and also because nothing else I did worked. The liquid crystal display also showed the figures in reverse, like a piece of negative film. So, I turned it off, and did not use it for the rest of the flight home.

I decided that after these setbacks, I would overnight at Andy's, and leave the next day. I enjoyed the company of his family and the steak barbecue.

Sunday, October 19, 2003
El Paso, Texas to Pecan Plantation, Texas

Without the EIS, I did not know what the power setting was. However, it was below the turbo boost level, and I felt that it was round 80-100%. I tracked about 80 kts on the GPS for most of the day, but had occasional excursions downward to 68 kts. But after the past few days, I was quite pleased with these speeds.

The departure from Dona Ana airport (in New Mexico) at the edge of El Paso, was similar to the previous day: predawn, towards mountains and into the sun. However, today I went round the mountains to the south, quite close to the Mexican border. Rim lighting, at the first suggestion of sunrise, made the contours rise from the dark.

The land from this point out, was much more inhabited than I expected, with houses, industrial sites, and sealed roads and highways. Guadalupe Mountain came into sight and I flew through the pass. There were rows of power generating windmills there, and as the day progressed, I saw more of them across the state.

I landed at Winkler, a small town airport, which has the feeling of isolation and abandonment. There were long runways with too little to do, and the only other traffic was an ultralight practicing takeoffs and landings. I was told that many of the local pilots had EIS systems, all of which had malfunctioned and had to be returned to the factory at least once.

The prerotator belt was now showing longitudinal cracks, so I decided to fly with full fuel loads, in order that the longest distances could be flown between prerotations. From Winkler, I flew over Midland, Big Spring, Sweetwater, Abilene, and eventually arrived at Pecan Plantation. This was one long hop, and my backside was beginning to feel raw, as it had on previous long legs.

Dave Guinn met me with his golf cart to escort Woodstock to the hangar. We then shuttled it back and forth between the autogas station and Woodstock, moving hi-test fuel back in plastic gerry cans.

I called Ron about Woodstock's problems and he said he would attend to them when I arrive at Little Rock. The weather promised to remain very good over the next few days to the coast. I was about half way! If the prerotator and the belt could stay functional, I would make Kill Devil Hills in the next few days.

Monday, October 20, 2003
Pecan Plantation, Texas to North LIttle Rock, Arkansas

Dawn at Pecan Plantation is round 8:00 a.m. I took off at 7:45 a.m. As it was still dark and I couldn't read the compass, I relied on the GPS to keep me on course till the sun rose a little higher. The ground speed indicator showed that, at long last, I had a tailwind! In four hours and 309 crow fly miles I would reach North Little Rock. Eight hundred miles to go and nothing serious had failed.

As I flew across eastern Texas, I noticed that the land was becoming increasingly greener, and more habitable. There were more lakes and open water, and the townships appeared to be increasingly upscale. As I crossed into Arkansas at Mt. Pleasant and followed the route via Texarkana, Hope and Arkadelphia, I flew over forests and farmland.

On the preflight inspection, I'd noticed that a lug nut had fallen from the anti torque arrangement on the rudder. So, I now had to use heavier right rudder to hold Woodstock straight, but this was a minor inconvenience.

I landed at NLR, and while waiting for Ron to join me after work, I checked the oil, and cleaned the blades. I then shuttled 25 gallons of gas and began filling Woodstock's tank. In the course of doing this, I dropped the 1" diameter piece of hose into the tank! Ron had to use surgical techniques to recover it.

We drove into Little Rock to look for replacement prerotator belts, and ordered three, but they would not arrive before I left next morning. Ron then checked Woodstock over from stem to stern, and I was "good to go" the next day.

I phoned the NAA to ensure that I would have a witness to my landing at Kitty Hawk.

Tuesday, October 21, 2003
North Little Rock, Arkansas to Knoxville, Tennessee

Ron and I were up at 5:00 a.m., and drove over at NLR in the dark. We were relatively well rested, and had the hangar door open for last minute checks. We pushed Woodstock out, turned the prop a few times, gave the intake a squirt of starter fluid and took off just prior to 7:00 a.m. local time. It was another lovely predawn climb toward Osceola to the N.E., and as the day was particularly clear, I noticed a yellow cropduster below me, that was commuting to work. It reminded me that I had seen almost no enroute traffic on the whole trip.

Tailwinds were becoming noticeable again, and I calculated that I would be able to delay refueling until Murfreesboro. This would allow me to make only one more prerotation before reaching Knoxville.

At Murfreesboro, I called Hoot to say that I was passing by. A few people at the airport recognized me from the last visit, and were especially friendly and helpful. I refueled, adding 10 gallons, and paid for it by credit card. It took the gas man quite a while to process the payment before he returned the card. I then decided to add another 5 gallons and so, handed the card back to him again. After more preflight distractions, I started Woodstock and taxied to the end of the runway, only to notice that the instructor was driving towards me waving my credit card. The lesson here was that the number of times you hand over a credit card must be equal to the number of times you get it back.

On toward Knoxville. The tailwinds were increasing along with the turbulence. I was flying into the back of a cold front, and winds were picking up as they moved into the mountains. Weather service advised that frontal passage across the mountains to the coast would be rough and turbulent, but would dissipate after midnight. So I set down at the Knoxville downtown airport, gassed Woodstock, tied her down, and took a taxi into town for a motel and dinner. This had been a good day with 5.1 hrs with good tailwinds.

Wednesday, October 22, 2003
Knoxville, Tennessee to Manteo, North Carolina

The Dave Gillis weather service advised that an east to west, rapidly moving front, was moving south across my line of flight. There would be moderate turbulence below 8,000' over the mountains, and there would be 15 gusting to 25 kts at Winston-Salem between 9:00 a.m. and noon. I was not too concerned about the turbulence, because I planned a

VFR level of 9,500' to keep clear of bumps. I had a full load of fuel, and had the option to overfly the gusts at Winston-Salem, if that was necessary.

I was at the Knoxville airport at 6:30 a.m. and packed things away. While I was doing this, I heard a hissing sound, and realized that it was the starter fluid can releasing ether gas into the carrying bag. I quickly removed it, and let the cabin aerate till the smell of ether was gone.

I still managed to get off predawn. Leaving full power on till I reached over 4,000', I then settled for a lower power setting, and higher airspeed, and reduced climb rate. However, I was soon at 9,500', and showing very good ground speed of over 100 kts which continued to increase to 108 kts, by the time I had passed the lakes and foothills of the mountains.

But it was very cold and I wore every bit of clothing that I had; my head was insulated by a cap and the earphones. With the radiation heat of the sun it was comfortable enough. Passing beyond the mountains into the eastern side of North Carolina, I was concerned about overflying my waiting friends near Winston-Salem. If I did that, then they would worry about my non-arrival. But, if I landed in gusts and turbulence and damaged Woodstock, that would show very poor judgment.

I was about to overfly the meeting, when it occurred to me that I could go down and look at the windsock, and then make a decision based on that.

It did not come easily to me, because I would have to sacrifice almost 2 miles of vertical energy. However. I quickly decided to do it, saw that the windsock was limp, and so I landed. Is it any wonder that the GPS indicated a speed of 136 kts!

Paul and Ruth Reed met me, and plied me with a sandwich, two pieces of fruit and Gatorade. Paul refueled Woodstock, Ruth gave me a hug, and I was ready to leave. This would be the last prerotation that I needed for the trip. The wind was just beginning to noticeably stir the leaves on the trees. I had just outrun the weather system that was now on my heels.

Climbing to 9,500', I was back into the friendly tailwinds that kept my groundspeed round 105-110 kts, and I savored this till about 60 miles short of Kitty Hawk. I was approaching a scattered/broken cloud layer round 8,000', and had no idea whether it would be scattered, broken, or solid overcast. I did not want to go down through a solid layer at Kitty Hawk. So, I went under it. The ride was rougher and I lost speed, but as I was so close to the finish and making such good time, it did not matter.

As I approached Manteo, I could see the First Flight runway, where Orville and Wilbur made their first flights (almost a century ago) about six miles N.E of it. I diverted to First Flight, in order to make a low pass before crossing over the coastline to the Atlantic. I wanted to be certain that this would definitely be a truly ocean-to-ocean transcontinental flight. The runway at First Flight was closed, and half a dozen pieces of earthmoving equipment were moving about on the field. I passed over at about twice treetop level to the ocean, and turned back to Manteo.

I announced that I was three miles inbound from First Flight, and landed without any further waste of time. The landing was officially witnessed by the airport supervisor, who prepared and signed off the paperwork.

Back Home to Frederick, Maryland

This was the end of the flight. However I still had to get back to my home base at Frederick. I refueled Woodstock and I left into headwinds from the northeast. The GPS showed that I would reach Frederick 35 minutes after sunset, so I decided to set down in Williamsburg for the night.

A cold front moved through overnight. I arrived at the airport at 7:00 a.m., and found that Woodstock would not start. The battery was near the end of its life, and the cold was not helping. I used the last of my starter fluid, and begged a jumpstart from the airport manager's Honda, and she fired up. I let her warm up for five minutes, then turned her off so I could pay for services. She would not start again. I persuaded an instructor to drive me to an auto parts store for a new can of starter fluid and this time she started! On to Frederick.

I was most disturbed by the proliferation of high transmission towers around Norfolk. They were very high, almost 2,000', and more to the point, they were not easy to see. I thought of them as death magnets, and one was particularly close to an airport, and was almost within the landing pattern.

The whole way to Front Royal was directly into headwinds, and there were very low temperatures under the overcast. I was coldsoaked by the time I turned toward Winchester, but enjoyed higher ground speeds toward Frederick. I arrived at Frederick at 12:30 p.m., shut Woodstock down, and called Marie to pick me up. The trip was over and I was home.

Figures for the West to East Flight

Trip odometer	2235.4 Nautical Miles
Stopped time	33:18 hrs
Moving average	73.3 kts
Moving time	30:28;59
Total average	72.0 kts
Total time	31:02:17
Maximum speed	136.1 kts
Odometer	2236.5 Nautical Miles

Class E (Rotorcraft) / Claim number : 7928

Sub-class : E-3a
(Autogyros : take-off weight less than 500 kg)
Group 1 : piston engine General Category
Type of record : Speed over a recognized course
Course/location : Kitty Hawk, NC (USA) -
San Diego, CA (USA)
Performance : 16 km/h
Pilot : Andrew C. KEECH (USA)
Autogyro : Little Wing LW-5
Date : 13.10.2003
Current record : new

Class E (Rotorcraft) / Claim number : 7945

Sub-class E-3a
(Autogyros : take-off weight less than 500 kg)
Group 1 : piston engine
General Category
Type of record : Speed over a recognized course
Course/location : San Diego, CA (USA) -
Kitty Hawk, NC (USA)
Performance : 32 km/h
Autogyro : Little Wing LW-5
Pilot : Andrew C. KEECH (USA)
Date: 22.10.2003
Current record : new

Class E (Rotorcraft) / Claim number : 7946

Sub-class E-3a
(Autogyros : take-off weight less than 500 kg)
Group 1 : piston engine
General Category
Type of record : Speed over a recognized course,
round trip
Course/location : Kitty Hawk, NC (USA) -
San Diego, CA (USA) and return
Performance : 16 km/h
Autogyro : Little Wing LW-5
Pilot : Andrew C. KEECH (USA)
Date: 22.10.2003
Current record : new