

August 2012 Trip Report

Howard Wolvington

My wife and I decided that this might be a good year to have a family vacation at some central location with our kids and their families. My daughter lives in Minneapolis, and my son lives near Nashville. We had vacationed years before in Northern Michigan, so we decided that would be a good location. However, my son has just taken a new job and is finishing his Masters in Business, so his side of the family determined that a vacation trip was not practical this year. Thus, we rented a cabin on Intermediate Lake where we had stayed before. The plan was for my wife to fly commercially to Minneapolis and I would pick her up there for the balance of the trip which would include a day in Baraboo, Wisconsin where she used to live. My daughter and her family would drive from Minneapolis (a two day trip). After a week at the cabin, I planned to go to Denver for a meeting with Jeppesen and a visit with my Dad. This kind of travel would not have been possible without a General Aviation aircraft.

The aircraft is a Piper Comanche 250, N6087P, highly modified from its original condition. Up front the engine is a Lycoming factory remanufactured O-540 engine. The airplane burns about 14.5 gallons per hour from four fuel tanks, including the original two wing tanks for a total of 56 usable gallons, and a modification which added 2 tip tanks of 15 gallons capacity each. Thus, at cruise power and altitude, the airplane has a range of almost 6 hours, at a cruise speed of about 155 knots.

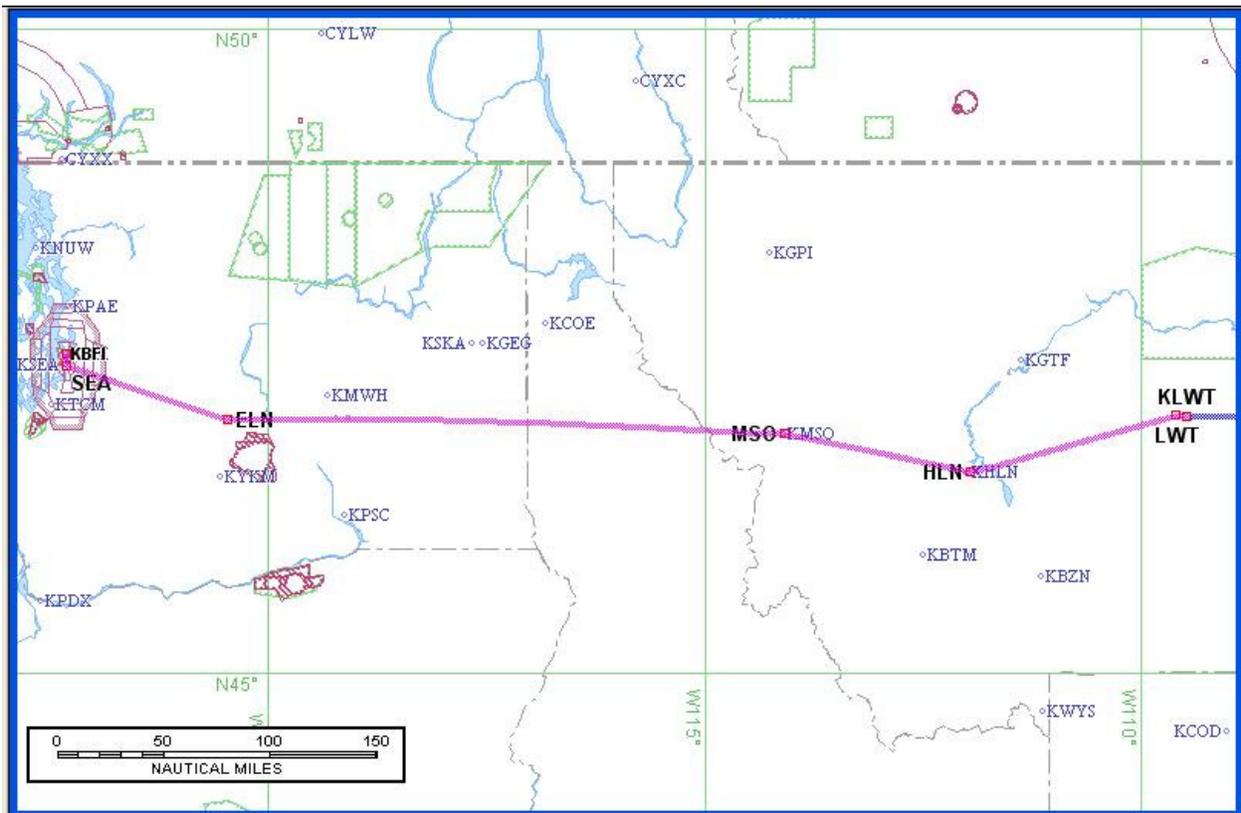
The avionics include a Garmin (UPS-AT) GNS 480 WAAS COM/NAV/GPS, connected with GPSS (GPS steering) to an S-Tec System 50 autopilot. For engine and fuel management, there is a JPI 800 graphical engine monitor and a JPI FS450 fuel flow monitor.

For in-flight weather, VFR situational awareness, and backup to the 480, I have used a Garmin 396 for many years. However, I decided to try ADS-B so as to eliminate the significant monthly charges with XM, so in the spring I sold it and purchased a Stratus from Sporty's Pilot Shop. This turned out to be a problem. The first unit, serial number 87, would not charge correctly, so I sent it back. Sporty's has great customer service and had another one built for me. It arrived in late May, but I broke my right ankle the first week in June, so I did not get to use it very much. I did determine that when placed on the glareshield it overheated in the sun, so I purchased an external antenna so I could get the unit out of the sun. When installing it in a front side pocket in the Comanche with external power, I found that the USB power connection pulled right out of the unit, so I send it back as well. Having had 2 hardware failures, and having used ADS-B enough to learn that Storm Cells and Lightning Strikes are not displayed, I decided to replace the 396 unit with a new Garmin Aera 560 and resume the XM support. The new unit arrived about 1 week before the trip, and I got all of the mounting accessories to get it into the airplane where I wanted it. The Aera has a nice "shapshot" feature which records a screen image to its memory, so I did not have to take pictures of the unit enroute.

As I did on trips in 2011, I used an iPad with ForeFlight primarily for enroute charts, and Jeppesen Mobile FD primarily for approach charts, and GoodReader to view various PDF files, including flight plans and preflight weather briefings. The iPad obtains the GPS position via Bluetooth from a GNS (GmbH, not Garmin) 5870 GPS unit, the third GPS in the airplane. To generate the flight plans, I used the Jeppesen FliteStar product on a Dell laptop, which also is capable of display of enroute and approach charts during flight should the iPad fail. Completed flight plans were transferred to the iPad via the DiskAid utility. One set of paper enroute charts for the entire US were in the airplane, but no other paper.

Wednesday 8/15/2012

The first day was to get me to Minneapolis and I planned three legs. The first leg was to get over the Cascades and the Rockies, and then two shorter legs to arrive before dark at KMIC (Minneapolis Crystal) where I planned to stay overnight with my daughter and her family. The first leg planned was to Lewistown MT at 11,000'.



The route basically followed V2, but took a shortcut across Eastern Washington and Idaho. I was delayed a few minutes by a Citation jet in the neighbor hangar at KBFI that blocked my hangar doors with his doors, but this was resolved in a few minutes, and I was in the air by 7:50am PDT.

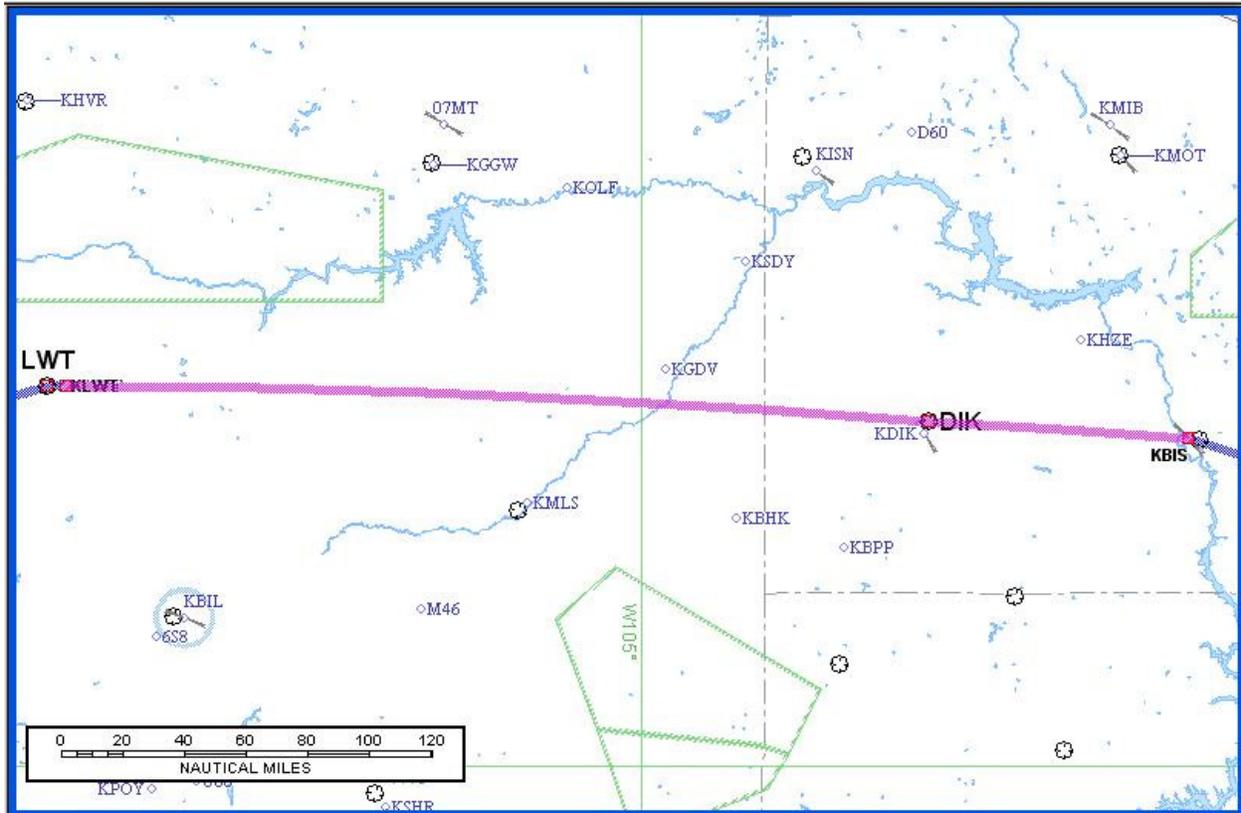


The leg was VFR most of the way in high pressure. I was getting just under 150 KTAS at altitude, and had a tailwind of about 15 knots. As I approached higher terrain, a climb to 13,000' was required, and I used supplemental oxygen for the balance of the leg until descending through 10,000'.

As I approached Helena MT, radar service from center was terminated, and they gave me direct KLWT and asked that I contact Helena Approach, which is a non-radar ATC facility. I was asked to report several radials and distances and was sent back to Center when 37 miles to the Northeast. I did have to fly an instrument approach (the RNAV 8 at KLWT) in order to get through a broken layer, but was able to cancel and circle for runway 26. The flight time was 3:35 and I used 49.5 gallons of fuel.

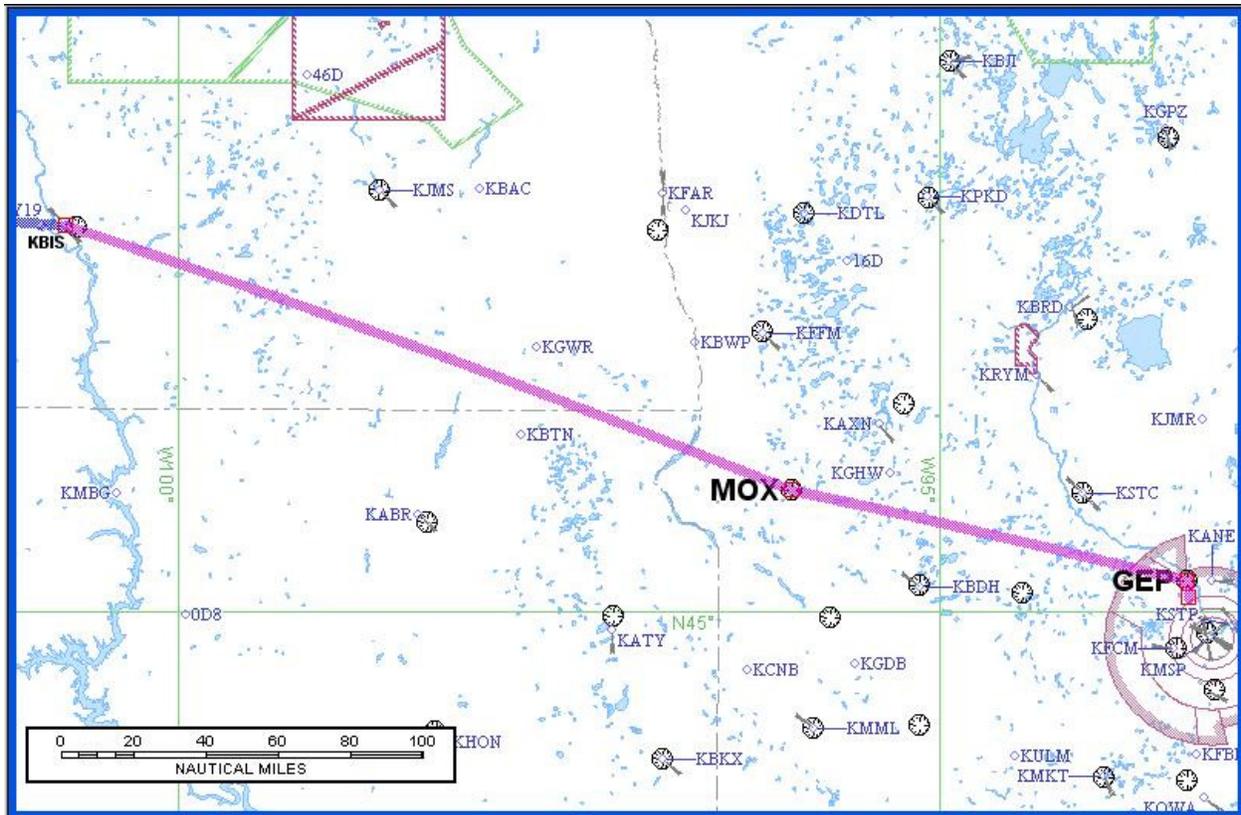
The FBO at KLWT gave me a courtesy car and I drove into town to get lunch to eat on the next leg.

I departed KLWT for Bismark, ND (KBIS) at 1945z.



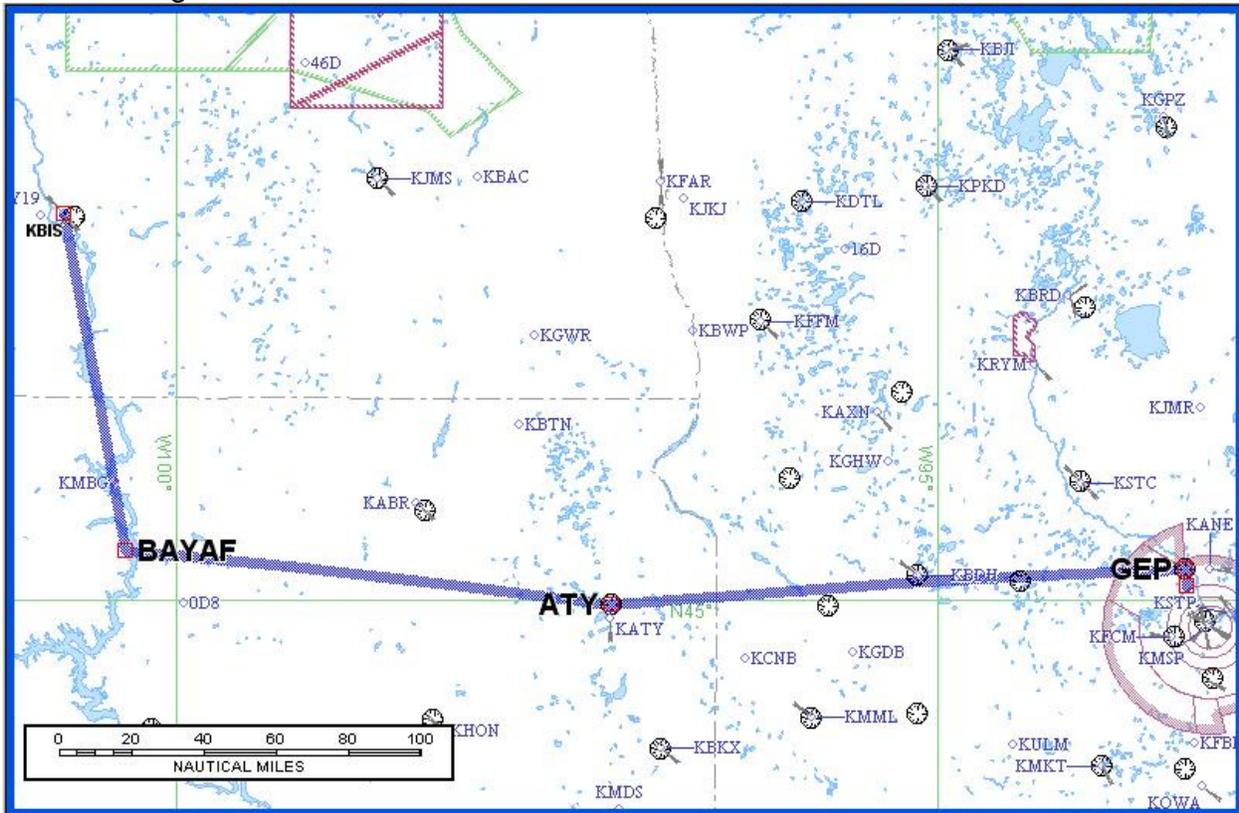
The route selected was basically direct, but I included the Dickens VOR since it was along the route. I started the leg at 11,000', but continued a climb to 13,000' to stay on top of an overcast layer and a bit of ice at the tops of the clouds. The tailwind improved, and ground speed increased to 170 knots. On oxygen again, my saturation level was measured on the oximeter at a comfortable 90%. At KBIS, I descended through a 5,000' overcast layer for a visual approach and completed the 2:16 uneventful leg.

The final leg of the day was the most challenging. A line of thunderstorms was between KBIS and Minneapolis Crystal (KMIC), so I abandoned any thought of the original direct leg. Here is the original plan through the MOX VOR:



Instead, using the iPad and Radar display on the ground at KBIS, I developed a flight plan that would fly to the South of the Convective Sigmet which outlined the storm.

The resulting route was KBIS BAYAF ATY GEP KMIC:



I departed with that clearance, but was watching carefully for the apparent position of the storm on XM. As I approached ATY, it appeared that I would be too far to the North for a comfortable distance from the very active system, so from

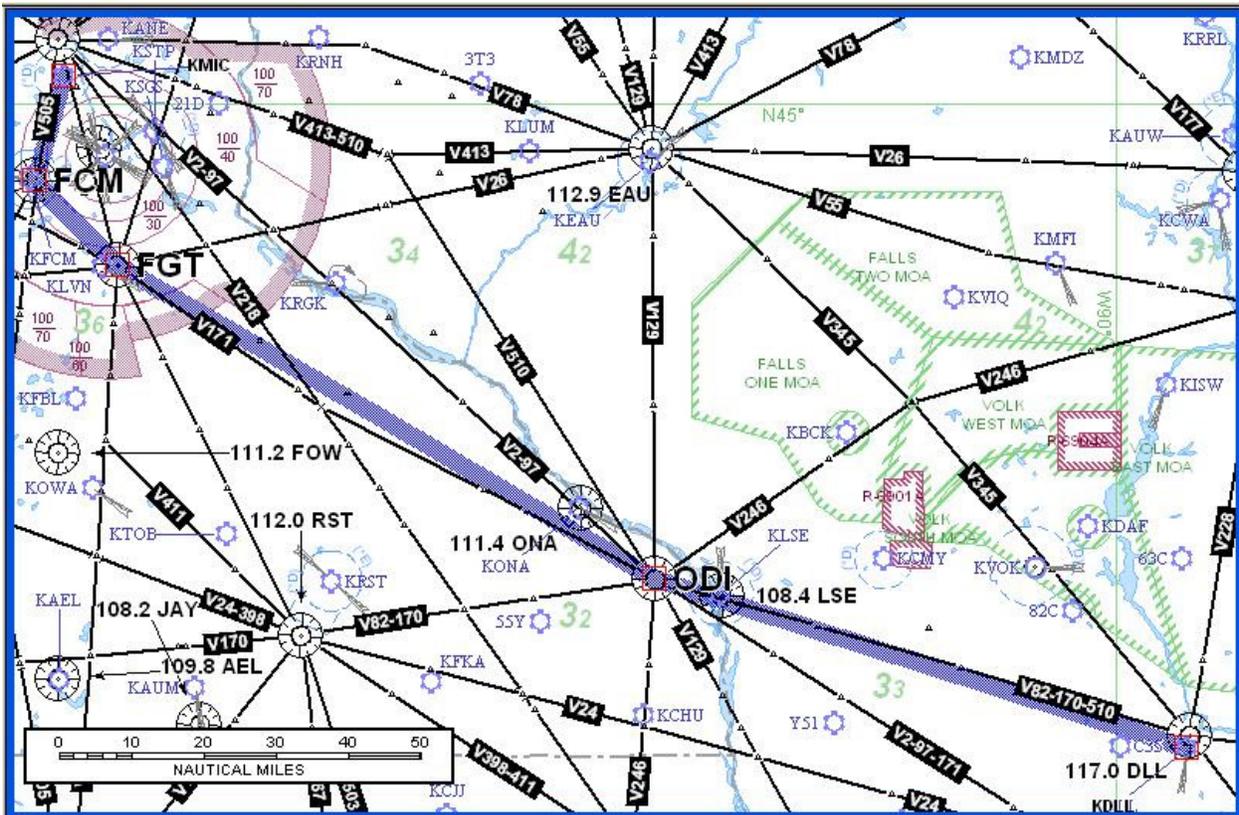
ATY I requested V24 RWF to get further south. I had a ground speed of 180 knots and the storm itself was moving at 40 knots, so I was confident that I would pass it before proceeding back to the Northeast.

This worked fairly well. I was probably 5 miles too close in IMC at one point, and got a single jolt of moderate turbulence which lifted everything off the floor and seats of the airplane. However, I then flew into the clear on the east side of the storm, and

thereafter the circumnavigation was uneventful. I landed a KMIC just after sunset after a 2:15 flight. Total flight time for the day was 8:06, and I traveled 1,304 nautical miles at an average groundspeed of 161 knots on 113.3 gallons of fuel (14 gph).

Thursday 8/16/2012

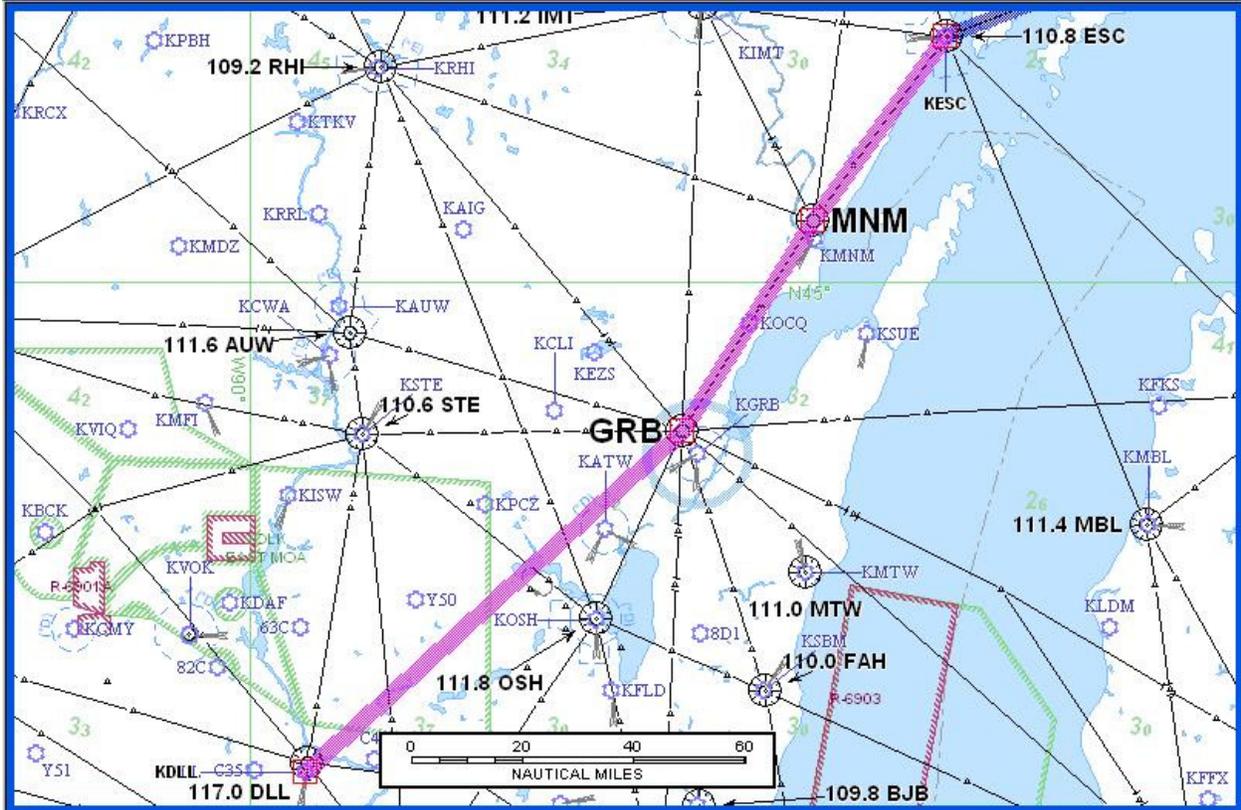
On Thursday I ran some errands with my daughter, attended an IMAX movie at the Minnesota Science Museum on "The Oceans", and then we picked up my wife on the Alaska flight that arrived at KMSP at 5:40. My daughter drove us to KMIC and we loaded up the Comanche with my wife's suitcases and took off for Baraboo - Wisconsin Dells (KDLL), Baraboo being a city where she lived during her college summers. There was a broken ceiling of about 5,000' and we punched through it to smooth air on top at 7,000'. I was cleared as filed via the Flying Cloud, Farmington, and Nodine VORs, and ATC liked my routing which took me to the west of Minneapolis Class B airspace.



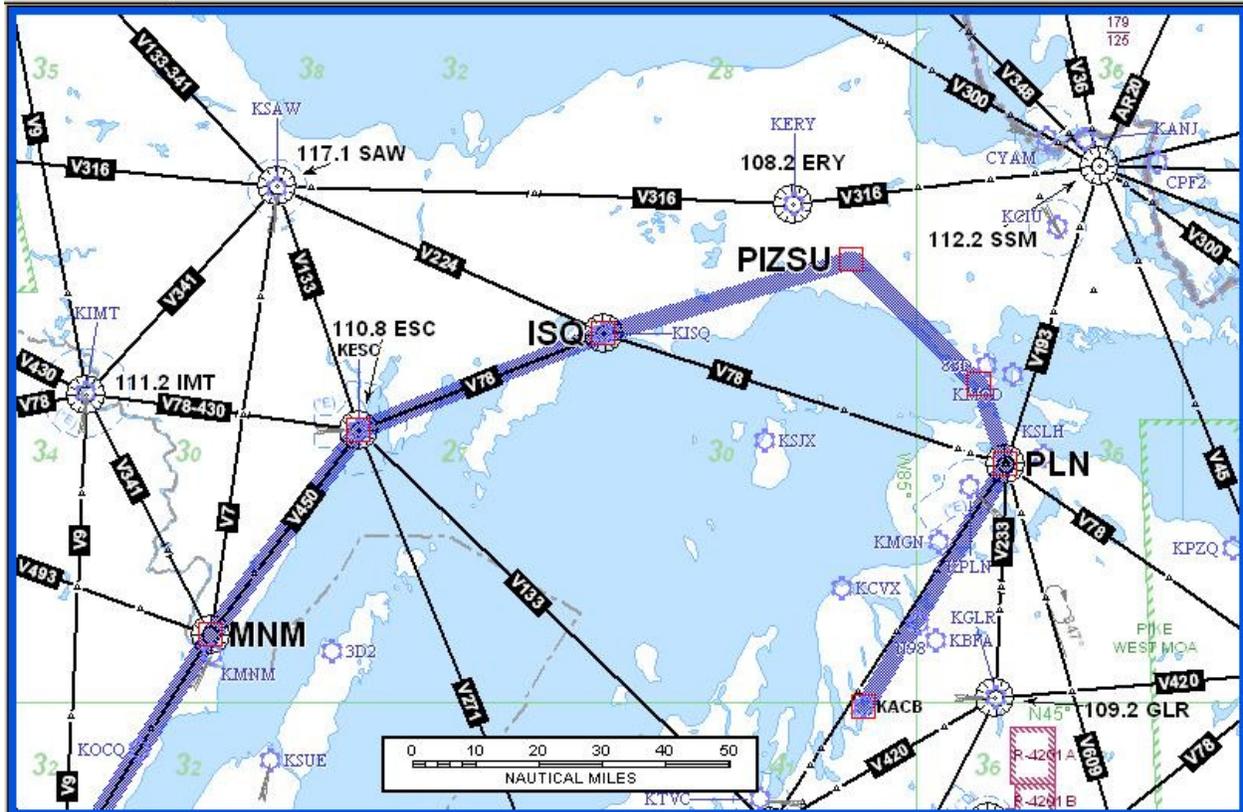
I took the visual approach into KDLL but loaded the RNAV 1 approach and joined a left base inside the final approach fix. As the PAPI was out of service due to construction, I wanted a glide path to follow as we were landing after sunset and it was difficult to see the terrain below us. The rental car was waiting "airside" as promised, and we loaded our luggage into it and put the Aera into automotive mode for the drive to the Hilton Garden Inn in the Dells. The flight time was just over 1 hour. We spend Friday checking the graves of Jean's parents, and visiting old family friends.

Saturday, August 18, 2012

On Saturday it was time to fly the final two legs to Michigan. While the trip could have been made non-stop, my wife prefers shorter legs, and a lunch stop was in order, so the first leg was from the Dells to Escanaba, KESC.



This leg was in VMC with the final portion just under a broken layer. I flew a visual approach into runway 27 and borrowed the airport courtesy car to go have lunch at “Culvers”. Up return, I added fuel and departed for our destination. The second leg would take us around Lake Michigan to the North avoiding “beyond glide” distances from the shore at 7,000’ since there was no life raft in the airplane.



The leg ran us through the bottoms of a few clouds and we flew through a few rain showers, but I did not want to climb much higher since the route was so short and the tops appeared to be higher than 9,000'. There was significant cumulous activity further to the North, so before we got to PIZSU, I requested NUBKE, and before I got to NUBKE I requested direct KACB. About 10 miles north of KACB, I cancelled IFR and flew a straight-in approach to runway 20. My rental car for the week was parked as promised and I picked up the keys and loaded all of our stuff for transport to the cabin on Intermediate Lake.

One disappointment was that all of the ties down spaces were taken, so I parked temporarily in front of the airport building and secured the airplane with chocks. I returned later in the evening and moved the airplane to a tie down spot that was then available only to find that there were no tie-down ropes. I drove into the town of Bellaire and for \$4 purchased some rope and a knife and make temporary ropes, and on Sunday morning was able to purchase for \$10 some cam-locks that made more sturdy main wings tie downs.

At the cabin, we were joined by two other families who had frequently vacationed with us in the area. During the week, there were several sightseeing flights in the airplane. The first was on Tuesday with my daughter and grandkids. It was a brief tour over the lake and cabin in very nice morning VFR weather.

On Tuesday morning, I took Detroit area friends Steve and Ruth Foley and their daughter Shanna on a similar flight. Shanna, who expressed some fears about motion sickness from a previous general aviation flight sat in the pilot seat and flew the airplane for a bit. She did great and had no problems at all with motion sickness. This time we took a longer route which included neighboring Torch Lake, a deep blue lake that is more than 600' deep in the middle.

On Wednesday, my son-in-law chartered a fishing boat on Lake Michigan and the Captain took us to the right spot for Salmon, Lake Trout, and Cisco. All 5 of us caught something, and the 32" King Salmon, the first catch of the day, was great fun for me. At the end of the charter, the Captain dressed all of the fish for us, and we took them home on ice. They provided two fish dinners for the 12 or so of us that were gathered for the week.

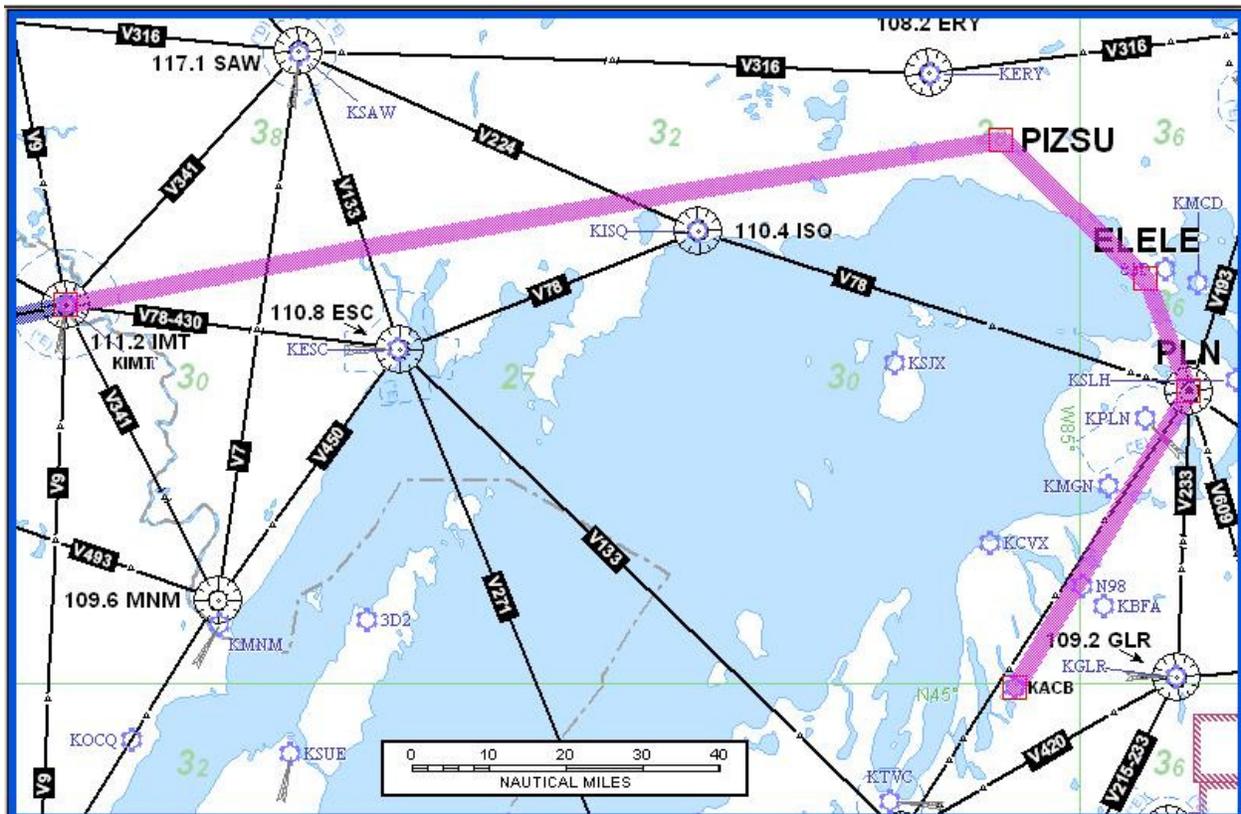
On Thursday, it was time for Dave Kulp and family to have their sightseeing flight. Dave, who started pilot training more than 10 years ago, but did not finish after his CFI was killed in a tragic accident, flew most of the flight and did a fine job. We went out over Lake Michigan and toured the area.

On Friday night, it was time to return the rented power boat and pack up for the return.

Saturday, August 25, 2012

The plan for Saturday was to fly my wife back to Minneapolis for her Alaska Airlines flight back to Seattle, and then for me to proceed on to Denver to spend a couple of days with my Dad. A front was approaching the Minneapolis area. I planned an early departure from Michigan to be able to get in and out of the Minneapolis area before weather that I expected with the front.

My wife and I returned the rental car to the airport and departed to the North to go around Lake Michigan. I once again planned a route with minimum water crossing, as there still was no life raft in the airplane.

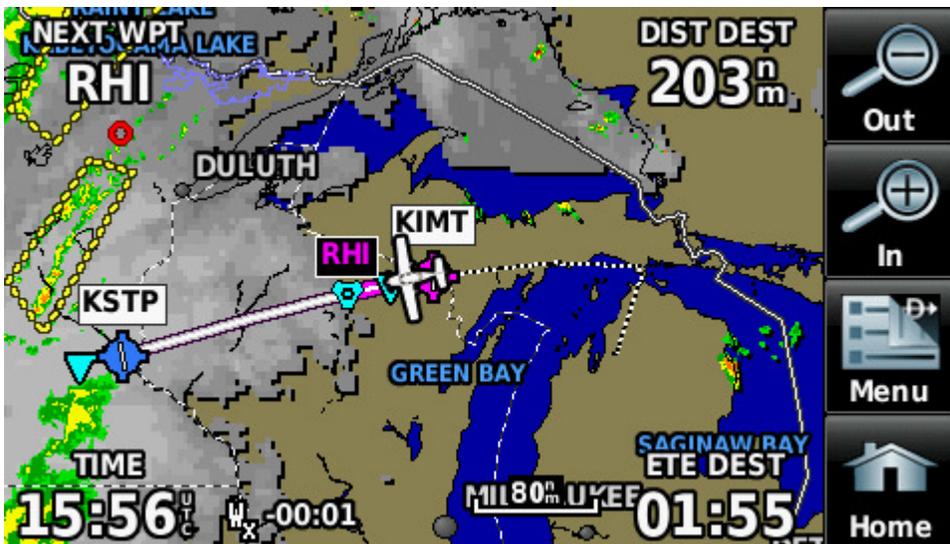
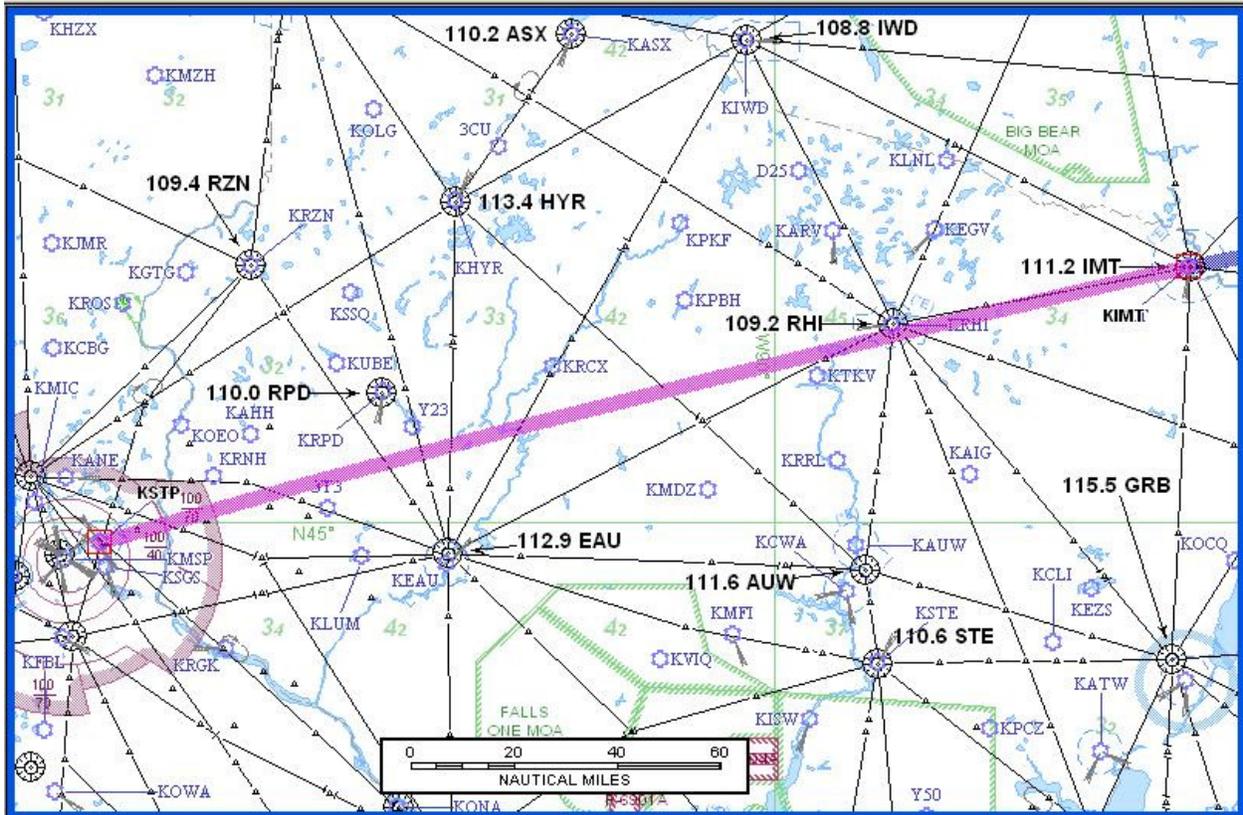


There was some early morning convective activity to the North of our route, so I did take a shortcut over the lake to ISQ, but still remained within gliding distance of land. As we approached KIMT, the controller asked if we had the NOTAM about the GA ramp closure at Iron Mountain. I did have it, but did not realize the impact, as a review indicated that fuel was not available.

I had not planned to use the FBO that was involved. The controller was not very busy, so I did some Single-Pilot Resource Management and asked him to determine the status of self-service fuel while I planned an alternate airport for our stop. After a few minutes, the controller reported that self-service fuel was still available, so we continued to KIMT without diversion and taxied to Kubick Aviation Services that had fuel pumps for us. The facility was not attended, but a sign on the door provided the combination to

get in to use the bathroom. After a brief stop, we were on our way to the Minneapolis area.

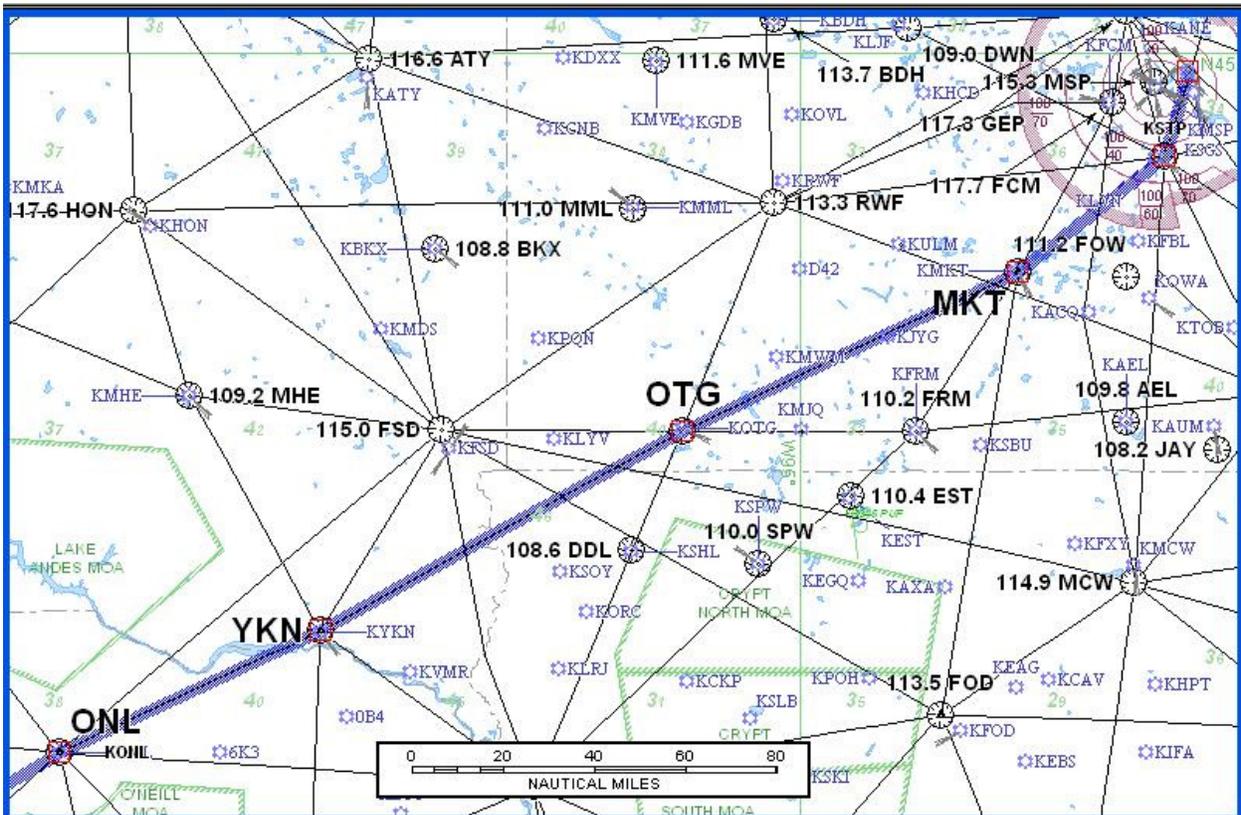
Prior to Saturday, I had developed a plan for getting my wife to KMSF for her airline flight. I had previously landed a KMSF, but some phone calls confirmed that there was a \$60 airport landing fee and a \$30 service fee from the FBO and that fuel was more than \$8 per gallon. Instead I selected KSTP, Saint Paul Downtown which was a \$20 cab ride from KMSF with no landing fee, no service fee, and fuel at about \$7 per gallon. It was not a hard decision and I filed a direct route.



The weather got worse as we flew west, and I could see the Convective Sigmet to the Northwest of KSTP, but no really bad weather was around the airport as we approached, and I was vectored for

the ILS and then took a visual approach to runway 27 that was more aligned with increasing surface winds.

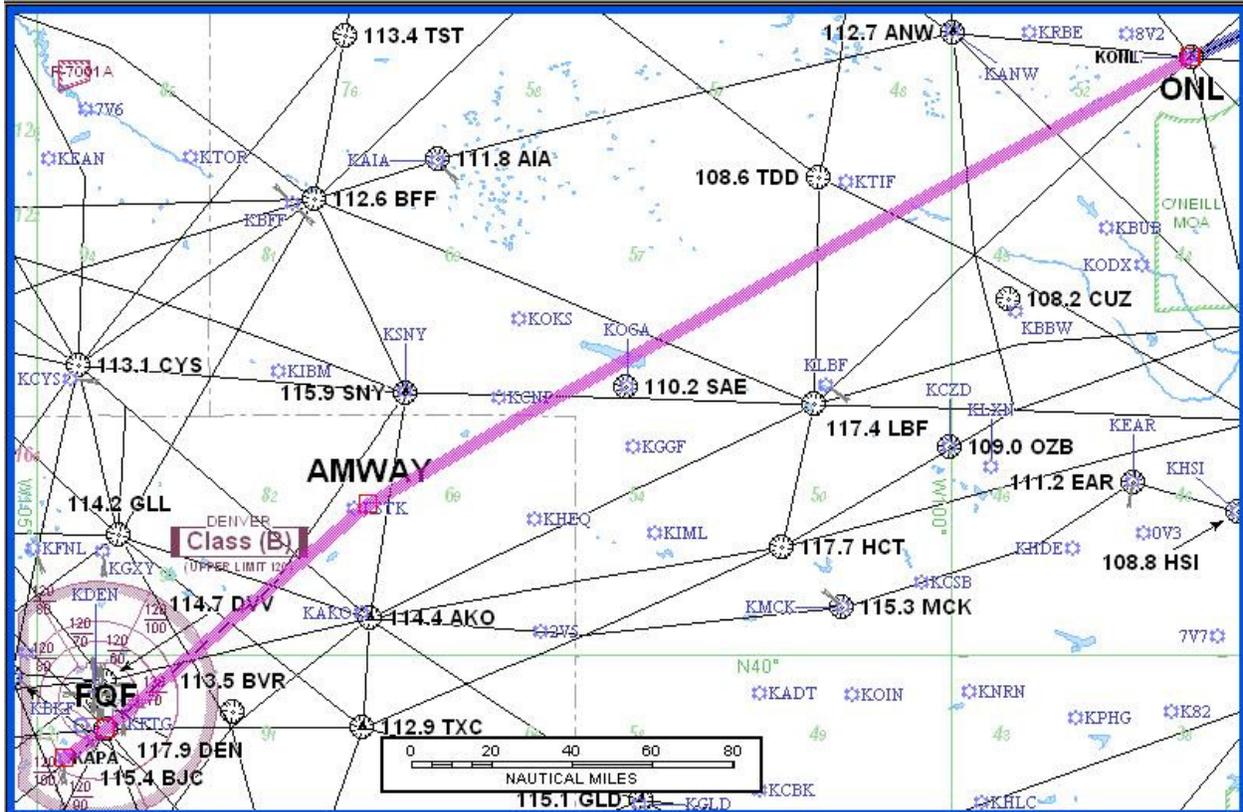
The FBO called a cab for my wife, and she was loaded and off to KMSP before they were able to put fuel into the Comanche. I looked at the weather situation, and it looked good for a departure towards Denver, using O'Neil Nebraska as a fuel stop. I originally selected O'Neil as it was basically on a straight line from Minneapolis to Denver and was about 1/2 the total distance, and kept me out of two MOAs in the area. However, in a conversation with Dad, I found that it was also near the gravesite of his grandparents, and I thought it might be cool to find the graves during the stop. I selected a route that would take me south away from KMSP and looked good on the current NEXRAD display.



Upon departure from KSTP, I received radar vectors and then shortly direct KONL.

At O'Neil I found an unattended self-service fuel pump and a very nice facility. Courtesy cars were available by entering a frequency into a lock box, and the cars turned out to be old city police cars with the big "interceptor" engines in them. I went into town and had a BBQ sandwich, and then used the Aera 560 in automotive mode to attempt to find the Black Bird cemetery where my ancestors were buried. This was successful, and I captured a number of pictures to send to my Dad and other relatives.

I then departed for the final leg of the day to Denver.



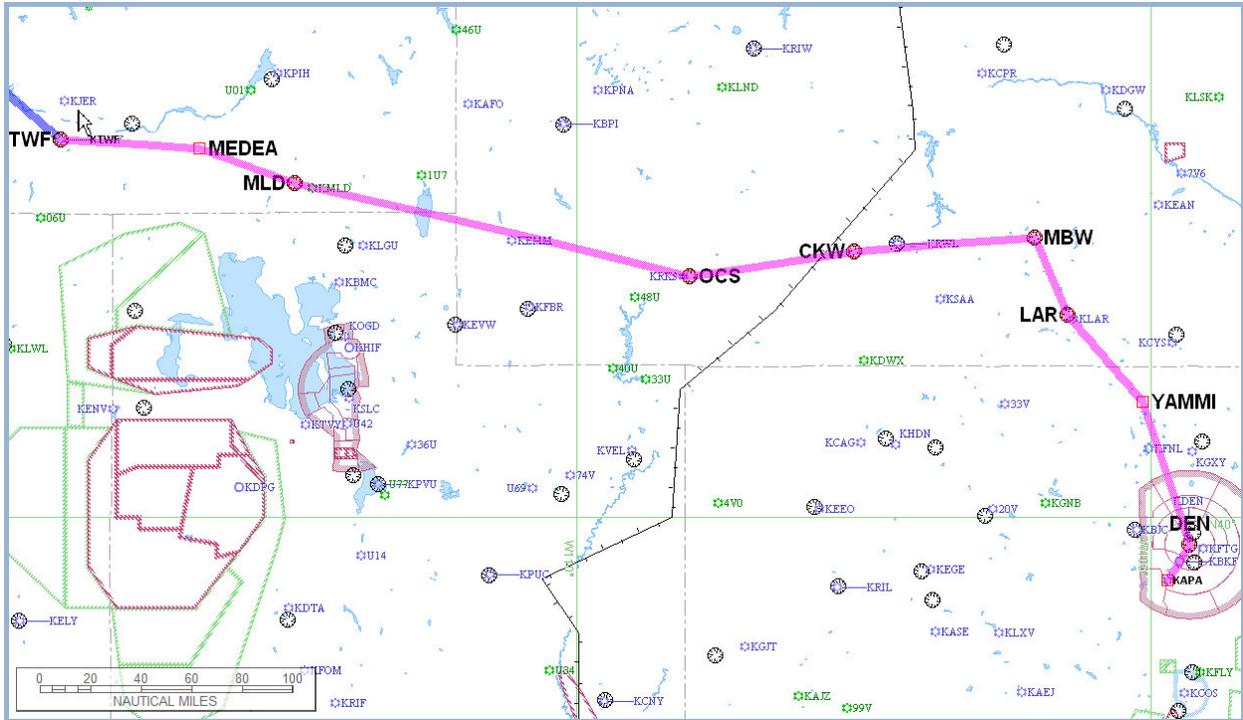
The leg was complicated by a 30 minute closure of Denver Centennial for a charity event that happened to be held at the FBO that I was using. I pulled back the speed on the Comanche, and eventually ATC gave me vectors for a visual approach. I taxied to TAC air, but the entire ramp was filled with cars, airplanes and people. A “follow me” car led me directly to aircraft parking and they brought out my rental car and I loaded up and went to my hotel.

I spent the weekend with my Dad and had a great visit with him. I also had a meeting on Monday 8/27 with Jeppesen to discuss support for BEFA and its members. This meeting was a good one and I learned a great deal about Jeppesen during the meeting. I did not have time to take the print shop tour that was offered.

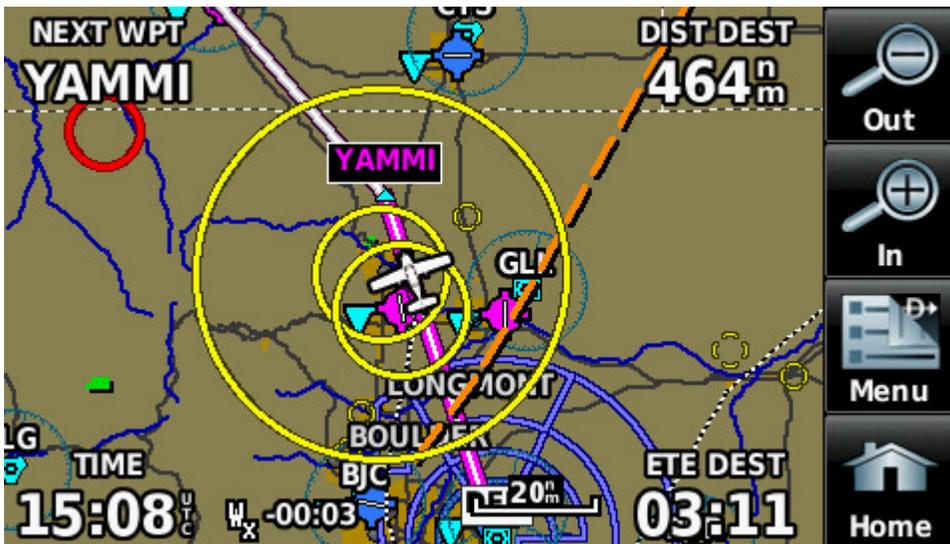
Tuesday, August 28, 2012

On Tuesday it was time to fly the final two legs to get back home. I have made this trip many times in the airplane, and did not plan any major deviation from what had worked in the past. The basic strategy was a morning flight to KTWF (Twin Falls, ID), for lunch and fuel, and then a final leg to KBFI, Boeing Field.

The route filed to KTWF was selected primarily to minimize headwinds and the requirement for oxygen and was a combination of V4 and V6 and then an approach into KTWF from the final approach fix.



When I called KAPA clearance delivery, I was given a slightly different route that included the Yellowstone departure procedure with the transition through the YAMMI intersection to the LAR VOR, but then ATC assigned the shorter but higher altitude V4 route from LAR to OCS.



Out of Denver, I flew through the Presidential TFR (legally and without incident) which was scheduled to become active on Wednesday.

14,000' to avoid IMC and the turbulence, and turned the oxygen back on. Seattle center assigned the CHINS arrival, and I descended past Mount Rainier. The weather was good at Boeing Field with just a few clouds at 3,500' and when I got below them I cancelled IFR and was given a right downwind entry for 13R. The flight time for the final leg was 3:04.



The trip was a great experience and made good use of the airplane. The time with family, both in Michigan and with my Dad in Denver was fantastic, and the airplane performed without a flaw. I am likely to make some variation of the trip again.

Postscript: My dad passed away on October 17, 2012, so the visit was my last time to see him in Denver. My family has already asked for a similar trip to Michigan in 2013 and it is planned.