

A trip was planned to originate from Indianapolis Executive Airport in Zionsville, Indiana on Thursday, February 10, 2022 with the final destination being Grand Junction Regional Airport in Grand Junction, Colorado. The trip was planned with a fuel stop and overnight stay in Lincoln, Nebraska. An IFR flight plan was filed departing TYQ and flying direct to LNK at 10,000 feet MSL.

The weather briefing for this trip was obtained from Foreflight prior to heading to the airport. I arrived at the airport around 1715 hours, Eastern Time, and began my pre-flight inspection of the aircraft. The fuel had been topped off the day before by First Wing Jet Center, giving me 92 gallons of 100LL Avgas. The deicing system was also topped off with TKS earlier in the week and remained full of approximately four (4) gallons on each side. The oil was approximately six (6) quarts, so one (1) quart of Phillips 66 X/C Aviation 20W-50 oil to the engine. The onboard Jeppesen Charts were also updated during my preflight inspection.

After loading the plane with items being transported on this trip, a brief overview of the trip was discussed with my passenger, Mark Helms. The plane was removed from the hanger and placed onto the apron in preparation for our departure. The engine was started without incident and the gauges were reading appropriate after being started. The flight details were programmed into the MFD and the local weather was obtained from the AWOS at the Indianapolis Executive airport. As we taxied from the apron toward the ramp, the flight controls were checked for proper response and free movement. Prior to entering the taxi way, a runup was conducted with no issues noted. All my pre-flight checklists were completed prior to departing TYQ.

I departed TYQ at approximately 1740 hours utilizing runway 18. After reaching an appropriate altitude, a turn to the west was initiated and I began flying an on-course heading of approximately 280 degrees. My climb was set to a cruise climb of approximately 120 knots and the autopilot was engaged. I picked up my IFR clearance in the air, shortly after departing TYQ. I was cleared to LNK via Direct with my final altitude being 10,000 feet MSL. After reaching my final altitude and a cruising speed of approximately 150 knots, the manifold pressure was reduced to approximately 30.5 inches and the fuel mixture was adjusted lean of peak to approximately 18.2 gph.

The flight was uneventful and the plane was running appropriately, with all gauges noted to be within the proper operating limits. Approximately 60 NM east of LNK, there was a brief stutter of the engine and the plane began running rough. A check of my instruments indicated that my engine speed was maintaining at approximately 2480 rpm and my fuel flow was approximately 18.4 gph. My oil pressure was maintaining in the low to mid 50's psi and my oil temperature was around 180 degrees. I noticed that the cylinder head temperature on cylinder 3 was much lower than the other five (5) cylinders; however, it remained in the green on the gauge. My airspeed was also maintaining in the 140s KTS.

Shortly after the rough running was noticed, we entered an area of moderate snow with an outside air temperature of approximately -5 degrees Celsius. I noticed some light rime ice beginning to form on the leading edge of both wings. The deicing system was activated and shortly thereafter, the icing began to flake off the wings. After noticing my indicated airspeed begin to decrease into the 130s KTS, I began researching alternate landing sites and selected KPMV as a possibility.

I advised Omaha Approach that my engine was running rough and asked to divert to KPMV. I was given a clearance direct to PMV and to descend and maintain 4,000 feet. I began a decent rate of approximately 500 feet per minute and turned to fly direct to PMV. I also began going through my emergency checklists

with regards to the engine failure during my descent. As I passed approximately 9,000 feet MSL, I noted the icing was gone from the leading edges of my wings and we were no longer in the snow or any type of precipitation. As I descended just below 8,000 feet MSL, the engine began to run smooth and my indicated air speed began increasing back into the 140s KTS. I was approximately 40 NM east of LNK when this occurred. I advised Omaha approach that my engine had smoothed out and that I would like to continue to my original destination of LNK at 6,000 feet if possible. I was cleared direct to LNK and to maintain 6,000 feet. As I began flying back toward LNK, I noticed the cylinder head temperature for cylinder 3 was zero.

As I traveled to LNK at 6,000, I was handed off to another approach controller for Omaha. Approximately 15 NM east of LNK, the engine again began to run rough again so I asked the approach controller if I could start a slow descent into LNK. I confirmed with the controller that I had the current ATIS, which was information Xray. I was given clearance to descend and maintain 3,000 feet MSL. Approximately 13 NM east of the field, Omaha approach told me the field was approximately 12 o'clock and to advise when in sight. Approximately 12 NM east of the field, I reported the field was in sight to Omaha control and was given a clearance for the visual to runway 17. Shortly thereafter, I was handed off to Lincoln tower.

After checking in with Lincoln tower, I was cleared to land on runway 17. I continued my descent and around approximately 2,500 feet MSL, the engine began to run very rough and my oil pressure began to rapidly decrease along with my indicated airspeed. After evaluating the distance to the runway, along with the strong headwinds I was facing and the status of my engine, I determined that I was unable to safely travel over the populated area and make a landing at the airport. I was approximately 6 NM to the east of LNK when I notified Lincoln tower that I would not be able to make the runway and that I was going to look for an open area or field to land in. I immediately turned the plane toward the southeast to head away from the populated area and look for a field. After finding a field, I deployed the parachute and pulled my fuel cutoff. An emergency landing was made in a harvested cornfield. After landing in the harvested field, I continued the process to shut the power down to the plane and we immediately evacuated the aircraft.


Ben Phelps