

## July 30, 2016 - Just another "day at the office"

It has been said, of professional flying, that it is made up of "*hours of extreme boredom punctuated by moments of sheer panic*". I suppose that is because commercial aviation has become so safe and routine these days that, for the professional pilot, it is almost the equivalent of **sitting in front of a computer... at an office desk**. However when the sudden and unexpected problem does occur, it generally requires immediate and positive action on the part of the pilots.

For the private and recreational pilot, however, I would like to paraphrase the aforementioned statement to read "*hours of thorough enjoyment punctuated by moments of extreme concern*". In the almost 60 years that I have been flying there have only been a handful of these moments of extreme concern; yet I can remember each and every one of them as if they happened yesterday. **Here are just a few of them:**

In the mid 70's, when I was still flying by visual flight rules, I was making a night flight, en-route to Florida, with my wife and a close friend. The weather across our route over southern coastal Georgia was fraught with scattered thunderstorms. In those days electronic avionics technology was in its infancy and equipment such as the Stormscope and real-time weather radar was both expensive and rare on small aircraft, such as my Cessna Skyhawk. The rule back then, with regard to weather, was to "see and avoid", but it was dark. So, I had to fight my way through severe turbulence and lightning bursts all around us for more than 30 minutes, until we broke out over the Jacksonville area, and I was, then, able to complete the trip in relative smoothness.

A decade later a flight with my single engine Piper Comanche ended prematurely when I lost many of my engine instrument readings all at once. I had just taken off from the Easton, PA general aviation airport with my young 10 year old son on board. I had a roof inspection project for a large department store chain scheduled, and was on my way to Buffalo, NY. Upon my precautionary return landing to the departure airport I found that an exhaust manifold had cracked and the raw fire coming out from that cylinder had burnt through my wire harness, which took out much of the instrument data. Although the flight was under visual conditions, it did end that trip until the necessary repair was made some several days later.

Back in the early 90's I was flying my, then, twin-Comanche on an IFR (instrument) flight from Allentown, PA to Baltimore, MD for a project. On climb-out through clouds, and as I was coming through 6,000 feet, I noticed a precipitous drop in one of my cylinder's exhaust temperature on the right side engine. A quick mag check determined that I was not generating much power on this cylinder so I elected to make a precautionary landing back at Allentown. There it was determined that one of my valves had hung up in the open position, causing damage to the top of its piston. The plane was left behind for repair and I rented a car in order to complete my trip and the project.

I had another weather event, while flying my twin engine Piper Comanche. This time I was on an IFR flight, in thick clouds, from Hilton Head to Coco Beach to meet with a architectural client and was being handled by Jacksonville Center. I was at my assigned altitude of 12,000 feet when I encountered violent turbulence with severe updrafts. Before I knew it, I was on my up to 15,000 with absolutely no control over my ascent, despite being on autopilot with altitude hold. This raised the immediate attention and concern of ATC (Air Traffic Control), whom I informed of that inability to control my altitude. No sooner that I had reached that 15,000 level, I found myself on the downhill side of whatever was going on. Jacksonville informed me that I had wandered into a thunderstorm cell, which they had failed to inform me of, and that they would try to get me out and would clear altitudes above and below my assigned 12,000 feet. While I struggled to keep my maneuvering speed down as low as possible, in order to prevent my wings from being ripped off, I had no choice but to ride the "rollercoaster" until I cleared out of the thunderstorm. When I finally landed, some 30 minutes later, at Coco Beach, I still had more than an inch of ice remaining on those wings and on my cowl from the encounter into the heavy rain in the below freezing temperatures at 15,000+ feet.

There have been several other similar events over the years, but I am not going to try to recount all of them here, at this time. Suffice to say that each and every one of them would qualify as a moment of **extreme concern**. **Today, there was another one.**

I made a routine early morning 50 mile flight up to the Vero Beach airport for breakfast at CJ Cannons, the terminal building's upscale restaurant. After a wonderful Eggs Benedictine Oscar (with crabmeat), I went back out to the plane, where I did an abbreviated preflight inspection, and was cleared to taxi out to runway 30L. A few minutes later I was at my 1,500 foot en-route altitude and heading southbound, toward Indiantown and, having just cleared the Vero Beach control area, I did another scan of my instrument panel. I immediately noticed that my oil pressure, which would normally be at 45-50 PSI was reading 22 PSI in a "yellow" cautionary window.. **"This can't be good"**, I said to myself, quickly checking the other instrument readings... all of which were completely normal. **"OK"**, I found myself thinking, **"is this a sensor malfunction, or am I actually loosing oil?"** At the same time I took notice of what airports would be available for a precautionary landing. St. Lucie County, in nearby Fort Pierce was still a good 7 or 8 miles distant but I had just flown over a small private community airstrip called "Indian River Estates", with a 2,600 foot long grass runway running north/south (see red arrow on the adjacent sectional map image to the right). I noticed that my oil pressure was continuing to slowly drop one PSI at a time, seeming to indicate that this was more than a sensor or gauge problem. I made the 180 degree turn back to the airstrip that I had just flown over only to realize that I would be way too high for an approach to the north runway and, if the engine did seize and quit, I might not



have enough altitude for a deadstick landing to the south one. I chose, instead, to make a 360 degree circle, losing altitude as I went, so that when I rolled out on my north heading, with the throttle pulled fully back, I was perfectly lined up, just one mile out for a landing even with no power. I noticed the oil pressure was now at "19" and still falling, with it's window showing in the emergency "red" color. I proceeded to touch-down as the pressure continued to fall into the single number range. After pulling off the active runway, and onto the paved ramp of one of the homeowners, I exited the airplane and began looking for evidence of the oil leak. It was then that I noticed that oil had run down the cowl on the pilot's side and all along the lower

fuselage and back to the tail. A check of the sump's oil level showed only about an sixteenth of an inch remaining on the dip stick. I removed both the upper and lower cowl for further investigation and found what appeared to be a leakage along a rubber hose at the oil drain plug. but by now outside air temperatures had reached into the low 90's and I was sweating like crazy. What needed to be done might require a replacement hose, at least, and more tools than I had on board the aircraft. I made hasty arrangements with a very accommodating and helpful homeowner and aerobatic plane owner and pilot, Dave von Linsowe, who allowed me to keep my airplane parked next to his hangar for the next few days.

My mechanic was currently away, at the EAA's AirVenture aviation exposition in Oshkosh, WI, (where I had just recently returned from myself) and was not scheduled to be back for two days. I elected to wait for him to return so that we go over together, via his Piper Comanche, to make the necessary repair. I would then bring the airplane back to my base field, where his shop was located, for further inspection, if necessary.

So, while this landing was probably more an "emergency" than a "precautionary" one, and the event required me to phone Miriam for her to drive up and bring me back home by car, hopefully the eventual outcome will involve no more than some time lost and money spent.



**An update to the above story:** Although my mechanic, Charles, did make the flight back from the Oshkosh Aviation Expo on Monday, as expected, it was Tuesday, AM, when we were able to head up to the Indian River Estates strip. We flew there, in his personal single engine Comanche (similar to the airplane that I used to own in the late '70's, and one manufactured just 13 units ahead of mine on Piper's Lock Haven, PA assembly line). After we arrived and he had a "look see" (photo above) he determined that the hose did indeed "fail" with several prominent cracks and splits visible. This allowed for the oil to seep out slowly during the 10 or 12 minutes that I was airborne after leaving Vero Beach and before my "precautionary" landing at the Estates



airstrip. There was about a half quart of oil still left in the engine sump, which was probably sufficient to keep everything satisfactorily lubricated. However we took an oil sample to be sent out to my lab for analysis to see if there are any unusual wear metals present. Meanwhile the damaged hose was replaced and made fast, the engine was run-up and tested, on the ground, at various power settings and eventually everything was deemed to be airworthy. I re-installed the cowl and after another round of power run-ups and carefully monitoring the instruments for any abnormal readings, I took off and climbed up to 1200 feet to circle the airstrip twice while paying particular attention to all engine instrument data. Finding everything copasetic, I headed south for the 30 minute flight back to my home field. Over the next week or so I will keep my trips more local than usual until the results of the oil analysis comes back. Meanwhile the lesson learned from this incident is that nothing lasts forever and belts, hoses, bungee cords and other "wear" components should probably be replaced on a regular bases, despite their outward appearance. It was also reassuring that when the unexpected happens (and it will happen) that I can still calmly and rationally analyze the situation and react accordingly and with the professional approach that almost 60 years and 6,000 hours of flying has ingrained into my psyche and muscle memory. There is one cardinal rule of flying, that when faced with imminent distress or danger; a pilot must continue to "**Aviate, Navigate, & Communicate**". In the aviation world, this is a common approach to all **flying situations**, especially **emergency conditions**. Aviation studies have found that pilots can get so focused on solving a problem in an emergency that they sometimes forget to **fly** the airplane... which may lead to disaster!