

GA ILAHFFT - BLIND LANDING

Posted on 23.01.2024 by Steve Forward

Category: [General Aviation](#)



I'm a GA pilot who utilises my small-group PA28 Warrior II for recreational purposes. At the point of writing, I have logged 296 flying hours of which the majority are on type, I've expanded my knowledge base by undertaking my IR(r), I fly often to stay current, and I have capabilities that have a limit in GA terms. I was undertaking a very routine and non-eventful flight from my home airfield in Norfolk to an airfield in East Riding. After a few hours at our destination, it was time to return home. As I departed with my passenger, I thought the journey back would be as uneventful as our arrival, how wrong could I be.

On departing the East Riding airfield area I changed frequency to Humberside Radar. Climbing through 2500ft, my passenger asked me what had appeared on the lower part of the front screen on his side of the aircraft. At first, I could not see what he was referring to, then a further smear appeared. I initially thought that it was water, however within seconds the liquid began to spread in finger formation up the front screen and I could quite clearly see that it was yellow and quite thick! Oil! On turning my vision back to my side of the screen, I noticed that the liquid had now also appeared on both sides and it was quite quickly covering the screen and blocking my visibility entirely. This is the first picture my passenger took.



Quite quickly our position worsened when the oil started to spread in a similar fashion along not only the front screen but also the side windows of the aircraft. Very quickly the passenger window became completely blocked and my side window provided only a partial lower view. I immediately knew this was not going to play out well. I was at this point a little unsure of what that outcome would be or how bad the situation would become, but various thoughts quickly ran through my mind.

Within a minute of the incident commencing the only visual aspect I was left with was a small section on the lower left of the front screen allowing me to see downwards but not forwards. Having the small direct view window (which is very difficult to actually use to fly with), I was able to utilise this to crab the aircraft a few times to try and provide some form of directional guidance and a visual mind picture of what was ahead (a town and a big river!). On checking the Temperatures, Pressures, and all other gauges I was somewhat surprised and relieved to see that the aircraft was performing correctly and not indicating any system fault (yet). I was not sure how long this position would last, and I knew I had to get on the ground and very quick. I immediately spoke further to Humberside Radar and requested a divert to them. After some standard communication, we established that a straight in approach onto runway 20 with a tailwind was a better option than flying an approach to the in-use 02 runway. I am very grateful for my instrument training, having practiced numerous and various approaches into Norwich, Cambridge and Southend I have always taken the view that an SRA approach, (irrelevant of my skill at flying a plate procedure) would always be my chosen method should the need arise. That need was right now.

The CFI at my flying school (an excellent instructor) had made me practice SRA approaches - it was during these practice approaches that we discussed in detail how an SRA approach is much easier on the workload than a full procedural approach if in trouble. I did not have the approach plates for Humberside to hand, and whilst I am aware how to import them onto Sky Demon whilst flying, my workload was somewhat stretched trying to ensure my passenger was ok (he was exemplary and very helpful) and I was trying to run through various scenarios that could play out and my planned actions should the engine suddenly stop or should I see flames.

As we commenced the SRA procedure, I instigated the wings-level auto pilot (something I practiced a lot after obtaining my IR(r)) and began to concentrate on the instruments and gauges in front of me. Having plugged in a direct route to Humberside, I commenced the extended SRA from Hornsea and utilised the instruments and sky demon to point towards the runway 20 heading. The direct route from Hornsea to Humberside is 21nm and according to Sky Demon 13 minutes, that 13 minutes felt a lot longer!

Whilst concentrating on the 'Aviate, Navigate, Communicate' process dealing with issues right there and then, it suddenly occurred to me that in all my instrument training I had never actually landed the aircraft as part of the procedure (there was no requirement to) and all of my approaches and missed approaches had been flown on a QNH setting terminated at either the decision height or via a missed approach go-around procedure, either way they had all been based on the ability to see the runway! This position was something quite different.

A brief discussion with the controller confirmed that I would not actually be able to make a decision as I could not see ahead or out of the side window, hence at 600ft or 300ft there was only one way this was going to end, I was landing, and landing very much blind! I asked for the QFE and began focusing on how to land the aircraft, not only with a tailwind, but with the sun beaming into the cockpit and having no forward or side vision. I quickly established that to crab or fly any other unusual approach would potentially put further stress on my mental state, and I did not want to keep adding additional power to stabilise the aircraft should a crab with a tailwind put me off track. I was also conscious that I was maintaining a steady descent which was confirmed as part of the SRA approach with the controller. Little power bursts were also creating further oil spurts, oil spurts meant less oil which could result in less pressure, less pressure meant a rise in temperature, the combination of those together made for an even worse scenario than I was trying to control.

As the descent continued I was able to crab a couple of times had managed to glimpse the runway and the large expanse of grass to its left. I knew that if I could get to the threshold, I could drop a third stage of flap quickly and I would land before the end.

I fully appreciate the concerns the controller would have had, a GA aircraft with no visual front or side aspect being talked through a procedure into an active airport with a 21-mile approach, whilst not knowing if the pilot was instrument rated or the level of experience or currency of the pilot. I believe our mutual understanding of the position became clear when I advised that I would not be able to follow through with a decision height confirmation as I had no ability to see to make that decision.

At the point I realised that my glide would take me to the airfield, I also decided that a perfect landing on the centre line with no forward vision was not for me. For a vast amount of the descent I had been visual with a large piece of grass that ran parallel to the runway, I kept telling myself, I'm not a commercial pilot, I'm not being judged on the landing and from all of my training and my GA experience a bad and heavy landing on grass is always somewhat more appealing than the same on tarmac. I didn't tell the controller of my intention to aim for the grass, I think I may have been afraid of him saying no! (I'm sure he wouldn't) but that last 30 seconds was somewhat testing. Any

landing that you walk away from is a good landing (as one of my first instructors kept saying!)

Some 30 minutes after taking off from East Riding, and having flown for the very first time as an IR not IR(r) pilot and having landed successfully on the grass, I positioned the aircraft onto the centreline of Runway 20, blue lights flashing around me, with a fireman looking at me as if I was mad having landed on the longer grass rather than the beautiful runway we now all sat upon. I could only congratulate my passenger for his belief in me. There we sat, our emergency over! As I was taught, an emergency landing should have a real expectation of preservation of life, limited injury being caused and, if possible, an intact aircraft. I chose the grass as a safety and comfort blanket. On this particular day that blanket worked.



Would I change any decisions I made? Well I'm here to answer that, so the answer is clearly a 'No'. Would I do the same again? Absolutely. Since the incident, I have run the scenario time and time

again in my head and sat in the aircraft. I am in no doubt the grass would have won over an attempted blind perfect landing on the centre line of Humberside Airport every time. Human Factors played a huge part in this incident, training and currency being the most important factor, along with trust in the excellent controller.

The engineers report confirmed that the oil leak came from the end of the crankshaft ID; there had been approximately 2lts of oil dumped onto the screen and subsequently the rest of the aircraft. On leaving the aircraft it was quite surreal to see the amount of oil that had made its way from the front screen to the rudder and every part (including the wings in between). A close up of the screen from the outside shows the battle that had just been won, it's a little like trying to drive a car with bathroom obscured glass fitted!

The CFI from my homebase contacted me the day after the incident and we met up that day to talk through the event, we discussed my decisions and the reasoning for them, not to criticise but to learn and expand knowledge. Human Factors played a huge part in my planning (Humberside was my fuel and emergency divert for the route that I had worked through the evening before my flight). I didn't realise how helpful it would be getting into a small 2-seater Cessna the day after with the CFI. There are many things I have personally learnt about myself from this experience, and I am not naïve enough to think that this incident is my last run with trouble. I have some strong views on instrument training, not IR(r) but basic PPL extension instrument training, but that's for another day. For me, I've signed back up to revalidate my IR(r) and I shall ensure I keep very current with emergency procedures, all so I'm ready for the next time things go a little wrong once again!

