

GA FEEDBACK

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UNLICENSED AERODROMES

In GA FEEDBACK Issue 12, we published a report of operations into/out of a Licensed Aerodrome with no published instrument approach in allegedly very poor weather conditions. In our accompanying comment we stated that the aerodrome licensee was entitled not to permit an operator or aircraft to land, unless an emergency had been declared.

Subsequently, we received a number of queries as to whether the comment could be applied similarly to unlicensed aerodromes and have sought the advice of CAA (SRG) Aerodrome Standards Department. We have been advised that the narrative given in GA FEEDBACK applies equally to licensed and unlicensed aerodromes (including strips). If it is considered that a pilot is operating below his minima, the incident can be reported to the CAA's Air Regulation Enforcement who may investigate and, in appropriate cases, prosecute for any ANO infringement.

CONTAMINATED FUEL

Descending towards AAA en route to a Rally, the engine commenced misfiring east of BBB at approx. 1,500 ft. I checked the fuel contents (OK), switched on the fuel pump, but the engine continued to misfire with increasing frequency. I selected a field, in which a tractor was moving up wind and I noted that he had no invisible parts of his wheels, indicating short grass. I landed behind the tractor and braked to a stop, whereupon the engine stopped and could not be re-started.

With the cowlings removed, heavy deposits of red particles were found in the fuel filter bowl. This was removed and cleaned, the carburettor float bowls were found to be clean.

A flow check was run with and without the fuel pump and found satisfactory. The engine was then started and run for some time on the brakes with no misfires.

After pacing out the field, it was easily large enough to allow a take-off, although the surface was rough (dried tractor ruts). The aircraft was taxied downwind and lined up with a marker for a decision point mid-field,

and the take-off was satisfactory. The flight was continued to CCC after a precautionary circuit of the field.

At CCC, the complete fuel system was drained, cleaned, filters and hoses replaced, refilled and tested OK. No further misfires have occurred.

The red lead particles were found to have originated from the interior of the 'new' jerry cans, which were purchased to support our change to using Mogas for the Rotax 912 UL. We have now changed to approved plastic jerry cans and a filter funnel, which has already filtered out a surprising amount of debris.

It is strongly recommended that any fuel dispensed by cans of whatever type is filtered prior to use.

A reminder on the storage of fuel. The maximum storage without a licence for domestic purposes is two 10-litre metal containers or two 5-litre plastic containers. Both container types must carry the words "Petrol" & "Highly Inflammable". Metal cans must have a vapour proof, securely fitting cap; plastic cans must carry the words "Complies with SI 1982/630".

Additional storage must comply with the relevant safety requirements. Storage and dispensing of fuel is controlled by the local Petroleum Licensing Authorities.

CLOSE ENCOUNTERS OF THE WRONG KIND

Throughout the summer period, one type of incident that has been more frequently reported has been a close encounter between two aircraft in the visual circuit. The following two reports are typical of those received:

(1)

I planned a trip from AAA to BBB, taking with me two friends. The weather on this day was perfect and the flight down was uneventful. I was flying a ### (single-engine type).

As I approached BBB I changed frequency to BBB Radio (Air/Ground Operator) and called in to say I was 10 miles from the field, at this point I heard another aircraft, a

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from the Confidential Human Factors Incident Reporting Programme

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twin, call in requesting long finals, then stating that they were established on long finals.

I entered the overhead and had a good look flying two circuits, this was the first time I had attempted a grass field landing. As I was used to flying from an airfield with full-time ATC and BBB was a 'land at your discretion' airfield, I decided to call in my position on all aspects of the circuit and landing. I like to be as visible as possible. I called joining downwind, downwind, base leg and then finals. Both my passengers had been briefed to call out if they saw any other aircraft and to keep a good look out in the circuit. Three pairs of eyes are better than one. During the time it took to fly from the point of my initial call, conduct two circuits in the overhead, make a descent to land and call finals not a word was heard over the radio. I might add at this point that the radio was in good working order.

I called that I was on finals, the approach was just right, and I kept up the airfield/airspeed scan when suddenly one of my passengers shouted that an aircraft was passing underneath us. Sure enough, as I looked from the airspeed indicator out of the cockpit, a twin-engine aircraft overtook us from below at a distance of maybe 20 feet. I immediately called going round and applied full power then watched as the twin landed.

When I finally managed to land and pay the landing fee, someone at the field spoke to me saying that a few people saw the situation developing and wondered who was going to give way! Needless to say that the other pilot had made a very hasty getaway, it seems he didn't want to hang around for me. It would have been an interesting meeting.

All the other pilot needed to do was give a position report and to call finals yet he remained quiet for well over ten minutes, I was ahead and 20 feet above him yet he failed to see me?

The lesson I learnt from this, trust no one until you verify it yourself and keep your eyes outside of the cockpit. Unfortunately they have not invented the eyes in the back of your head transplant yet, however, when they do I'll be first in line.

The Air/Ground Operator could not have approved the 'long final' request. Moreover the joining instructions for the particular airfield were to make an overhead join.

The report highlights the importance of good airmanship and R/T discipline; being in the right place and making the proper call at the right time to permit other pilots to maintain the correct mental picture of the situation.

As regards the conflict, Rules of the Air - Rule 17(6) states that in the case of two aircraft approaching any place for the purpose of landing the aircraft at the lower altitude shall have the right of way, but it should

not cut in front of another aircraft which is on final approach to land or overtake that aircraft.

A final point: An Air/ground Service provides only aerodrome and, when relevant, traffic information. This does not imply 'land at your discretion' as the report suggests; this phrase is associated with the service provided by FISOs.

(2)

I decided to join on a 6-mile final for Runway ## and called the tower for airfield information and with my intentions. There was at least one aircraft in the circuit and two aircraft were calling that they intended to back-track the runway. I actually joined at less than six miles and too high and fast. I then made a radio call that I was at '5 mile finals' and had not heard anyone else calling that they were near to me. I could see the runway, which had two aircraft back-tracking, and I could tell I was much too high for this distance. I concentrated on the runway ahead and trying to rapidly lose height and was not really looking anywhere else other than the odd glance to my left in case a circuit aircraft joined from left base.

Two aircraft back-tracked the runway ahead of me and I watched one take off and then the other start its run. Just as I was transfixed on the runway ahead I caught a movement out of the corner of my eye and saw a light helicopter very close over my right shoulder, I would estimate the distance at the closest point was 25 yards. On the ground the helicopter pilot stated that he hadn't seen me until I was banking away from him and that he wasn't on finals to my runway.

Having considered these events I have some lessons that I hope I have learned.

I had made an awful approach which I should have just abandoned and joined the circuit in a better position probably from the overhead.

It was clearly a busy day and yet I was concentrating on the aircraft on the runway ahead and on my flying. I should obviously have been keeping a better lookout as the aircraft on the ground were of no real threat to me. I am still not sure exactly what the helicopter was doing but this is irrelevant to me as it could just have easily have been a slower non-radio aircraft that I would still not have seen due to my rapid rate of descent and fixation on the runway ahead.

My third lesson is that I may be becoming far too relaxed about flying and short hop VFR flying is getting much too easy. I now have a reasonable number of hours for a PPL and have had several long trips across many countries. I was flying between two airports on a route that I have done 27 times in the last year to meet a business partner, so I expected no real surprises. I think

that this familiarity and relaxed attitude also contributed to me not really paying attention to some of the real basics such as looking out of the windows.

Periods of high pilot workload can lead to a loss of awareness, which in turn can lead to a serious incident/accident.

This report is a good example of how the same result can arise from a low state of arousal, caused by the task being relatively easy, the situation familiar and the weather undemanding.

Both this and the previous report warranted the submission of an Airprox report.

SHARED AIRSPACE

I was towing a glider, climbing at about 700 fpm wings level from AAA airfield in excellent visibility. The climb out route with the strengthening wind led to a planned drop somewhere just north of a nearby Danger Area. As I approached the planned drop point, a twin prop dropped out of the 8 okta cloud base at 2,000' about 500 metres directly ahead of me - my guess was that he was about ½ mile N of the Danger Area. At the time of the 'spot', I was at 1,800'. The twin was turning at the time of exiting the cloud and was headed towards the approach to BBB, a nearby busy GA airfield.

The reason I'm reporting this incident is that this is the third time in recent months that I have been surprised by powered aircraft dropping out of cloud cover. The nearest controlled airspace in this area is usually well above any cloud base. In this particular case, it would have been wiser of me to stay further below the 2,000' cloud base and not bow to the glider pilot's perceived wish to get best value! I intend to do so in future. However, the other cases involved parachute support aircraft, the first descending in narrow gaps in a 3,000' layer cloud outside of the Danger Area and diving through a number of manoeuvring training gliders, and a second that dived out the side of a cumulus cloud and shot across the front of my glider as I cruised between thermals at 3,500' well below the cloud base.

I totally understand what everyone is trying to achieve, whether lifting parachutists, launching or flying gliders, or just getting into any of the many airfields in the area, but my gut feeling is that too many of these incidents are being flagged up in conversation by pilots at my club at the moment.

I don't want to start blaming anyone (hence the CHIRP report) - but we (the flying community) do need to wake up when operating in the open FIR.

All powered pilots and the air traffic controllers need to be aware of how far gliders can be from their sites and

still be in comfortable gliding range of home (4 miles per 1000' as a ball park figure!)

Glider pilots need to be aware of the risks of flying close to the cloud base where aircraft can be expected, unwisely but legitimately, to appear at any time - glider pilots make best progress across country zooming along at just below cloud base.

The parachute pilots also need to get on board that if they are dropping with a lot of cloud around (!!), they need to be more careful than normal with their descent route - minimising the airprox risk should be a higher priority than local noise abatement or increasing turnaround times.

When operating in a relatively busy area of the open FIR, in which several different types of operation are conducted, it behoves all of the airspace users to consider carefully the margins of safety to be applied.

Whilst there might be a temptation for gliders, parachutists and para support aircraft to continue to operate to the absolute weather limitations permitted for their respective operations, the inherent risk in relation to the reporter's final comment, is not of an airprox, it is of a mid-air collision.

A SPINNING TALE

Spinning can be a potentially disorientating experience, particularly in an aircraft type that has variable spin characteristics, as this reporter recalls:

I was occupying the front seat and a colleague, also a pilot, was in the rear seat.

The detail was to do some inverted spinning. We climbed to 3,500'. I carried out two inverted spins and noted that the aircraft would not spin in both directions, i.e. apply right rudder on entry - spin to the right; apply left rudder - spin to the left. This is a known characteristic of this aircraft type. I can't recall which direction was the problem, but for instance applying right rudder, the aircraft would spin left. This made recovery a simple stick back movement.

I informed my colleague. He took control and I removed my hands and feet from the controls. He repeated the spins I had performed earlier with the same characteristics, but did not just use stick to recover; instead (or as well) he used in-spin rudder! The machine flicked into a very fast spin he lost consciousness briefly, my sight became blurred and we both nearly died!! I found I could not focus, or move my feet or hands. Thankfully my colleague recovered and stamped on opposite rudder.

I will never take my hands and feet off the controls again.

The recommended minimum entry height for a two-turn erect spin in the aircraft type in this report is 5,000ft AGL. An additional 1,000ft is recommended for inverted spinning

When conducting an exercise such as this, it is vitally important to brief the exercise in sufficient detail to ensure that both pilots are fully aware of the possible aircraft behaviour and are clear as to the correct recovery actions to be taken in any situation.

PRESS ON-ITIS

I was renewing my PPL after a gap of many years, and that day was on a solo cross-country exercise. I landed, paid my fee, enjoyed a very nice cup of tea, booked out and noticed that I was getting short of time. The flying school would be wanting their aircraft back for the next student, so I set myself to waste no time but not compromise safety by omitting checks. The seat was fully back to allow easy entry and egress, so I pulled it forward and proceeded with the cockpit checks and start-up.

While taxiing out I noticed that the seat was a little further back than I usually had it, with the result that my hand could not follow the brake lever to the fully "Off" position. This did not worry me, as the lever had always gone fully forward by itself on previous flights. I did not consider that I had not flown this particular aircraft before. Being certain that I could move the rudder through its full range, I decided that I would not bother to re-adjust the seat.

The power check was carried out holding the aircraft on the toe brakes, and all seemed well. Acceleration down the runway was modest, but the tarmac was nice and long. Then prudence suggested a change to short runway technique. Yoke back a little to reduce the rolling resistance, but not too much lest induced drag should take over. What was the optimum? The ASI was grudgingly rising towards the stalling speed, and the big oil drums at the end of the runway were growing in size excitingly. Back to old experience: once committed, look ahead and aim to skim over the obstacle in front. Fifty yards to go, so ease back on the yoke, and use the rudder to put the fuselage between two oil drums. If one is to hit the barrier, it will hurt less that way. The aircraft lifted off the runway and seemed to leap forward.

Clear of the circuit and en route for home, it was time for some good airmanship. The take-off dynamics suggested that the brakes were not fully released. I released the seat belt, pulled the seat forward, pushed the brake lever fully forward and re-strapped myself, checked my navigation and thought about the landing. Everything pointed to a take-off with brakes partially applied, but how could I be sure that they were now fully released? While on the runway there had been no

tendency to swing, but now that I had pushed the lever forward, there was a chance that one brake had not fully released. This possibility seemed all the more likely when I considered that the brakes must have been very hot by lift-off. Had the brakes been smoking? Would the kind people have telephoned forward, warning my home airfield that I might be landing unaware of a brake problem?

The landing was as slow as I could manage, with my feet high on the pedals to be quick on the toe brakes to counteract any swing. It was uneventful, and my spirits rose as I turned off the runway. The radio came to life, ordering me to taxi to the maintenance hangar. A problem in the air causes fear, and also exhilaration as one addresses it with knowledge, skill and experience. But on the ground, when one faces at least a well-deserved reprimand one has a depressing fear that is very hard to bear. At the hangar, the fitter looked up, saw who it was and ignored me. I parked and shut down, not forgetting to read the Hobbs meter. As I walked towards the office, I greeted the fitter, who grunted, and I was convinced that he knew the punishment that was in store for me.

As expected I received immediate attention. But no reprimand. "Did you read the Hobbs meter, and what did it say?" When I told them, the relief was palpable. The flight had been authorised in error because the aircraft was on the point of a 50-hour check, but I had landed with a few minutes to spare. Complete the paperwork, address the coffee flask, and negotiate future workloads with my guardian angel.

The cause of the trouble was over-confidence growing into carelessness that allowed me to press on when I knew that all was not right, plus the sauce of time pressure.

It is important to check that the seat is correctly positioned and locked prior to take-off to ensure that all vital controls are within reach.

Also, as the reporter notes, if any aspect of the performance or handling appears to be significantly different from normal, abort the take off in good time and check the matter out.

Arriving a little late is a much better option than not arriving!

WINTER FOOTNOTE

Are you fully aware of the effects of snow, slush, ice and frost contamination?

If the answer is no, don't take the risk of learning the hard way as some pilots do every year, find out - see CAA (SRG) General Aviation Safety Sense Leaflet 3C - Winter Flying - available on the CAA (SRG) GAD website