

CHIRP General Aviation FEEDBACK

Edition 83 1/2020

We are pleased to announce the appointment of Steve Forward as Director Aviation at the CHIRP Charitable Trust. After a distinguished career in the Royal Air Force where he flew Harrier and Tornado GR aircraft, Steve joined the UK Airprox Board in 2013 as Director. Having developed in this role a clear and sympathetic understanding of human factors in a complex environment, Steve is ideally suited to the responsibilities of Director Aviation at CHIRP. He will take up his appointment in April to replace Ian Dugmore, who is retiring.

EDITORIAL

Infringements. Several reports in this Edition of FEEDBACK concern actual or very near infringements of Controlled Airspace (CAS) and 1 report is about aircraft flying through a NOTAMed display area. The reports contain a variety of factors and lessons identified including planning and distraction. However, increasingly common is the role of electronic devices in infringements. Correctly used, these devices are a boon that aid planning and reduce the possibility of infringements; incorrectly used or when not working as expected they can sap capacity and draw attention away from lookout and accurate navigation. The lessons from these and many other reports are that:

- Notwithstanding the vital importance of reading NOTAMs before every flight, planning using correctly configured electronic apps will highlight relevant warnings and restrictions along the route and eliminate the possibility of overlooking or mis-plotting NOTAMs.
- As per the '[Take 2 Initiative](#)', it is good practice to plan to avoid CAS by a minimum of 2nm and 200ft where possible to provide a margin for error/distraction.
- Sunlight can make electronic tablets difficult to read so invest in a sunlight filter and ensure the device is set to provide audio alarms; turn the volume to maximum before taking off. Paper charts are easy to read in bright sunlight.
- When an electronic device has some sort of hiccup or failure, don't spend more than a few seconds trying to correct it. Go reversionary! Use either the paper chart or a back-up electronic device.

Infringements bring the GA community into disrepute. We can and we must do everything to minimise the number of times it happens.

Drones/Unmanned Air Systems (UAS). This edition of FEEDBACK includes the first report to CHIRP from a UAS pilot. For the time being, Drone /UAS reports will be assessed by the CHIRP GA Advisory Board which now includes members with experience of unmanned operations. It is interesting, but perhaps unsurprising, that this first report demonstrates the similarities between manned and unmanned operations.

- [Editorial](#)
- [Comment on GAFB Edition 82 - Reversion to Type](#)
- [Comment on GAFB Edition 78 - Clearances](#)
- [Air miss on take-off](#)
- [Complacency and over confidence](#)
- [Partial loss of directional control on take-off](#)
- [Fire in engine bay](#)
- [Low flying regulation](#)
- [Single Rotor Unmanned Air System \(UAS\) crash](#)
- [Infringement whilst distracted](#)
- [Airspace Infringements](#)
- [Overhead join](#)
- [NOTAMs - does anyone read them?](#)
- [Wayward technology distracts from the basics](#)

Ian Dugmore, Director Aviation

COMMENT ON GAFB EDITION 82 - REVERSION TO TYPE

As usual I found plenty of useful reminders in GA CHIRP about the traps that can catch us out if we are unwary. I was particularly interested in "IS THE WIND DIRECTION CORRECT?" written by a glider pilot who inadvertently landed downwind in a motor glider. I did the same on my first away landing in a glider for similar reasons.

When flying a pure glider, we don't generally have the option of going around. Those of us who trained initially as glider pilots may not consider the option of going around if the landing isn't working out as planned or expected. Primacy tends to kick-in and so we continue with the landing even when going around would be a safer option.

CHIRP Comment: A human factor to beware of, particularly when working hard, stressed or in unusual circumstances. Another example would be pilots used to flying aircraft with a fixed undercarriage forgetting to lower the wheels on an aircraft with retractable gear.

[Back to Top](#)

COMMENT ON GAFB EDITION 78- CLEARANCES

I stumbled across an old CHIRP GA FEEDBACK and had another read. The report entitled 'Unsafe Clearance' struck a chord.

I am forever telling my ATCOs that a clearance of "climb straight ahead to *,000 feet" is severely ambiguous. Does it mean climb straight ahead until passing *,000 feet before turning on course, does it mean climb straight ahead to maintain *,000 feet before turning on course, does it mean climb straight ahead until advised and maintain *,000 feet on reaching? The three are completely different and unless the clearance is specific it will result in confusion.

With my CPL/FI/FE hat on I would never accept such a clearance without clarifying the meaning.

CHIRP Comment: Absolutely! A clearance should express exactly what the pilot is required to do and pilots must understand what they are being told to do. If there is any doubt, ask for clarification.

[Back to Top](#)

AIR MISS ON TAKE-OFF

Report Text: I was flying as Captain with my son in the right seat; he has a good deal of air experience, mostly in gliders, in which I also have about 600 hours experience. We had just taken off from RW 08 at []. At about 150ft I glanced at the ASI before steepening the climb when my son shouted, "aircraft ahead". There was a [] on a reciprocal course with landing light on and flaps in the 'landing' position, about 50 ft higher and probably about 150 metres ahead. Fortunately, I had sufficient height and speed to break sharply to the right. My son says that I called the [A/G operator] as I did so to advise my manoeuvre, but I do not recall doing so. Having had something of a fright I elected to continue with the flight rather than make an immediate landing and advised [] Radio as I did so.

I received a very full apology from the other pilot involved, who has given me a copy of his CHIRP report, which covers all the relevant points. All I would add is that we all make mistakes and the failure to execute the radio channel change is an easy mistake to make. One usually gets away with one mistake because the checks and balances kick in but once one starts to compound the errors the odds stack up.

I also would make the point that the words "No known traffic to conflict" from the [A/G operator] means just that, with emphasis on the "known". One cannot assume that it is clear ahead! Having said that, when I commenced my take-off run the aircraft involved were probably at least a mile and a half apart with a closing speed of about 120 kts so spotting each other would not have been easy in spite of the [other aircraft's] landing light and [our aircraft's] strobe.

CHIRP Comment: Very well done this reporter and his son for their good lookout and timely reaction. It is also good to read the reporter's generous understanding of the other pilot's error. For an explanation of how that error came about, read the other pilot's report below entitled, 'Complacency and Over Confidence'.

[Back to Top](#)

COMPLACENCY AND OVER CONFIDENCE

Report Text: On a recent flight from the North Midlands to [destination] I made a number of erroneous assumptions; the consequences of which could have been disastrous.

En route flying due south just outside Birmingham control to the west squawked 0010 and changed frequency to Birmingham approach, but did not call them.

Halfway between Birmingham and Wellesbourne, changed to the latter's frequency and requested 'basic service' and route through the overhead. Which was granted and conducted.

Halfway between Wellesbourne and [destination], changed to their frequency and pressed the flip button.

Called [destination] several times but could not make sense of the response I was getting.

Not unduly fazed by this as on most other occasions on flying into [destination] the [Air/Ground radio] has been unmanned.

Pilots using the airfield announce over the VHF which runway they are using and one just synchronises approach and landing with them.

Getting closer to [destination] called on the VHF but the response was fainter and pretty well unintelligible, the only positive sound I could distinguish was 36.

I rationalised that the transmission was from a pilot who had used [destination] was getting farther away and beyond reception distance.

Although I could not make much sense of what I heard on the VHF I proceed to advise that it was my intention to do an overhead join.

On reaching 'overhead the field' looked down, no runway 36 but there was a 26. Rationalised that I had miss-heard 36 for 26.

Was getting no response to my VHF calls, advised over VHF that I was downwind to land on runway 26.

Turned base and then commenced lining up for grass runway. Could see an aircraft on the tarmac but concluded that it had landed and was 'back tracking' as there are no taxiways at [destination]

Turned for final only to see aircraft "on the tarmac" was taking off towards me.

I manoeuvred to the right as did the other pilot.

The incident was quite shocking for me and must have been worse for the other pilot.

On landing found that the [A/G] was manned after all and that in changing to [destination] frequency I had either failed to press the 'Flip' button hard enough or had in a moment of turbulence hit it twice. Whichever it was, the consequences were significant.

In hindsight I realise that there were several missed opportunities to avoid or prevent the incident.

Far too confident in my own assumptions and never once questioned my conclusions.

Assumed [A/G] to be unmanned, wrong.

Assumed that I had misheard the other pilot, wrong.

Assumed aircraft was backtracking, wrong.

If I had checked my VHF settings all this would have been avoided.

For the future:

If no response from [A/G], re-input frequency, still no response, change to secondary VHF.

If still no response join circuit observe and make contact with other aircraft before proceeding further.

Finally, if still in doubt go elsewhere.

CHIRP Comment: We are grateful for this report and thorough analysis, which is rich in Human Factors. In fairness, since it is common for the A/G position to be unmanned at this airfield, it was not unreasonable to assume that this was another of those occasions. The reporter made an error and then rationalised subsequent clues and pieces of information to reinforce his mental model of the situation. We are all vulnerable to the phenomenon of 'confirmation bias' and the difficulty of developing the sixth sense that would prompt us to stop and reassess situations which have developed unexpectedly. It is not necessary to go elsewhere in the event of a communications failure but it is vital to identify positively any airfield before proceeding to join in the event of no RT contact. There was no wind on this day but as a general rule loitering then joining overhead, where practical, will assist in observing any available clues to the circuit direction: a signal square, a windsock and/or aircraft already established in the circuit or progressing on the ground.

[Back to Top](#)

PARTIAL LOSS OF DIRECTIONAL CONTROL ON TAKE-OFF

Report Text: This was a solo training flight to practise a Standard Overhead Join. Having completed power checks and vital actions at the holding point I reported ready to the tower and was asked to accept an immediate departure because of landing traffic, which I did. There was a moderate cross wind from the left. Having applied take off power and reached about 50 knots acceleration seemed a little slow and the aircraft was pulling to the left. I was already applying right rudder in the normal way to hold centre line and counter the cross wind and attempted to apply more to counter the pull to the left - which got worse rather than better. I reached the appropriate rotation speed and took off but by that point I estimate that the main gear was only 2 - 3m from the runway edge. The rest of the flight was uneventful. I could not initially explain what had occurred but believe now that I had omitted before commencing the take-off roll to ensure that my toes were clear of the brakes and, as a result, the more right rudder I applied the more the left toe brake pushed against my left foot causing the directional deviation and perhaps the reduced acceleration.

I was well aware that toes should be clear of brakes before take-off but it was not a specific item on the aircraft checklist. More to the point I do not think I had appreciated precisely WHY toes should be clear of brakes, which was not just for the obvious reason that you don't want to be braking on take-off, but because the application of rudder could lead to inadvertent opposite side brake application. My omission to ensure my toes were clear of the brakes was contributed to by not having that check on the checklist and probably by my acceptance of an immediate departure.

These were the mistakes of a low-time student pilot but I think it would be helpful for training to include specific reference to this sort of event - because otherwise the "toes clear of brakes" requirement can just seem like an obvious means of achieving maximum acceleration, rather than being vital for proper directional control.

CHIRP Comment: The reporter's analysis is almost certainly correct. As he applied right rudder pedal the left pedal was pushed back against his foot which then exerted pressure on the left brake because his feet were not sufficiently low on the pedals (or left pedal anyway) to avoid the brakes. Inadvertent application of brakes is a common problem. Clearly, being aware of the hazard is essential in ensuring that feet are kept clear of the brakes; wearing appropriate footwear will also help. Checklists cannot cover everything but it is certainly worth making a mental note always to check there is no pressure applied to the brakes during take-off and on short final. Also, remind passengers to keep their feet clear of the pedals in aircraft with dual controls.

[Back to Top](#)

FIRE IN ENGINE BAY

Report Text: Returning from a forty-minute flight I was too high and used a side slip to lose 2000 ft as I approached the overhead. I descended dead side with undercarriage and flaps down, pitch set to climb and proceeded to the downwind leg. As I was doing downwind checks I smelt burning. Very soon the cockpit began to fill with acrid smoke. There was one aircraft in front of me. I called Mayday and aimed directly at the threshold in a side slip. I heard the other aircraft overshoot. I switched off the fuel pumps but not the fuel. I held my breath as the smoke had caught the back of my throat. Thinking "Fly the aeroplane, fly the aeroplane" I kicked off the sideslip and made a very sharp low-level turn onto the active runway. The smoke was now clearing and I touched down safely. I switched off the engine and sat there a bit shocked at what had just happened, happy to be alive. The fire engine arrived and the radio said, "I should get out of there now" at which point I pulled myself together and did just that.

From Mayday to touch down was probably less than 2 minutes. An action packed two minutes but my much practised PFLs and fire drill paid off.

The fireman extinguished any remaining fire with powder at which point a charred blob with metal bits in it dropped onto the runway from the cowl flap. It was identified later as a small plastic torch which I had been missing from my tool kit. I do not know when it went missing but I surmise that it must have been there lodged in a safe place for some time. The sideslip to the overhead had been enough to dislodge it and it was jammed between the exhaust and the cowl flap where it had caught fire. The partially open cowl flap had provided a supply of oxygen and the fire had burnt very hot for a short time. Hence the clearing of the smoke before touch down.

The inside of my cowling and the firewall are protected with sheets of silver faced fire proofed material and this had protected the cowling but the cowl flap was destroyed as it had no such protection. The

torch had been right up against this material but the cowling underneath was in perfect condition. I complained of the expense when I bought the fireproofing from a car racing parts company. It has turned out to be really efficient heat protection and very light.

After a huge clean-up and thorough inspection, the damage is slight. I have remade a new cowl flap which took me back to the time I first made it. A small triangle of cowling which had no protection was made good and the paint on the outside had to be redone in that area.

My pride and joy is back in the air and none the worse. I am older and wiser.

Lessons

1. In case of fire the fuel cocks should be switched off. A basic and dangerous mistake!
2. I will use a metal torch for inspection in future. I will check it is in the tool kit after use.
3. Once landed after an incident get out quick, you never know what has happened and it can all explode.

CHIRP Comment: Some form of tool control is necessary to avoid the hazard illustrated in this report. It requires a reliable method of identifying the absence of any tool or item (including cloths) after maintenance has taken place. One solution is a shadow board or box where the silhouette of each tool clearly indicates the presence or absence of the tool. A missing item must be assumed to be in the aircraft somewhere and should be found before the aircraft is next flown.

The incident demonstrated how quickly a routine flight can develop into a very serious situation. Smoke in the cockpit could have a variety of possible causes and there is no standard drill that covers them all. Electrical fires are common but turning the battery master switch off would have had no effect in the reported circumstances but would have prevented the Mayday call and the use of other electrical services. Turning the fuel off would have put the reporter into a forced landing and may not have had a rapid effect in clearing the smoke. In fact, the reporter did exactly the right thing by keeping his head, concentrating on flying the aircraft and landing ASAP. It was no surprise that he was somewhat shaken by the occurrence and in those circumstances the advice received over the radio to vacate the aircraft immediately was commendable.

[Back to Top](#)

LOW FLYING REGULATION

Report Text: Recently I was asked to fly a passenger over Stonehenge, Wiltshire. I contacted Boscombe Airfield radar by radio for a MATZ penetration and was given clearance to enter their zone not above 500 feet. On return to my base airfield I contacted Boscombe ATC by telephone to query their instruction to fly not above 500 feet. My concern was to comply with this instruction could infringe SERA low flying regulation. The aircraft I was flying was a microlight with uncertified instruments and it is unlikely that the altimeter would give a wholly accurate height reading. I was informed by Boscombe ATC that many pilots flying over Stonehenge fly below 500 feet. I pointed out to the Controller that if this was indeed a common practice the pilots concerned could be breaking the low flying regulation. I was then told that if pilots could not comply with the instruction to fly within their MATZ not above 500 feet they would not be given clearance. I gained the impression during my telephone conversation with the ATC that he was uncertain about low flying regulations and did not grasp the outcome of giving an instruction which could result in breaking low flying regulations.

CHIRP Comment: Boscombe Down airfield publishes an airfield elevation of 407ft AMSL. The base of one of the stones at Stonehenge is 340ft AMSL. So, in theory flying at 500ft on the Boscombe QFE you have 567 feet separation from the base of the stones – too close to 500ft for comfort.

The airspace above Stonehenge is complicated: it is on the edge of the permanent danger area D125; Stonehenge is a local reporting point for certain Boscombe Down inbound VFR traffic; it is also on a recognised E-W transit route. Therefore, it is understandable that Boscombe ATC are cautious about traffic wishing to orbit Stonehenge. However, military controllers should recognise that civil traffic is not compelled to recognise a MATZ or comply with their instructions and not permitted to fly lower than 500ft above persons, vessels, vehicles or structures. That said, good airmanship requires pilots to endeavour to assist military controllers but not to the extent of breaking low flying rules.

The report was forwarded to the Military Aviation Authority (MAA). The Authority has confirmed that Military ATC personnel should be familiar with the regulations pertaining to VFR, as detailed in SERA 5005. Equally, they should also be aware that notwithstanding good airmanship, civil pilots are not legally obliged to avoid a MATZ or to follow ATC instructions when flying VFR in class G airspace. The

concerns raised in the report have been highlighted to SATCO at Boscombe Down so that the Unit is able to investigate and ensure its controllers are familiar with these regulations.

It is worth reiterating that pilots are responsible for flying within the provisions of their licence. It is not the controller's responsibility to know what a pilot's licence permits him to do. If a pilot receives a clearance that, if flown, would exceed the provisions of his licence, the pilot should advise the controller that he cannot comply.

[Back to Top](#)

SINGLE ROTOR UNMANNED AIR SYSTEM (UAS) CRASH

Report Text: The aircraft had just finished a waypoint-based mission which took approx. 14 minutes and for this mission the aircraft was flying at 2m above the ground. At the start of the day the ground station was laid out such that the Real Time Kinematics (RTK) GPS base station was elevated above the surroundings (a small weather station hut) and due to the wind, the First Person View (FPV) monitors were placed on the leeward side of the hut. This meant that the pilot had the ground station to their right (looking to the west) and the video monitors to their left. Direction of the flight area was to the left. As the mission drew to an end the pilot was concentrating on the waypoints being reached (to ensure the right waypoint was selected for the next flight) and also looking at the FPV monitor to see how close the aircraft was to the ground. About 90 secs prior to the crash the Electronic Speed Controller (ESC) on one motor failed. This does not show visually or aurally from the helicopter. The only indication of such a failure would have been a sharp increase or complete loss of the 'current' readout on the telemetry. For some reason this led to a rapid decrease in voltage which again would have been displayed on the telemetry. No visual or audible alarms were available for such instances. The pilot did not notice either two indications as they were concentrating on the terminal part of the flight which also involved manual control of the aircraft back from the survey area (300m away at its nearest point, 485m away at its furthest). It was whilst manually flying back to the take off point that the voltage dropped to the point where the rotor head speed dropped sufficiently to cause retreating blade stall, a sudden pitch up of the aircraft resulting in a tail first impact with the ground.

Lessons Learned: Positioning of telemetry readouts should be in the pilot's line of sight at all times and not split as per the layout in this instance although the layout was due to competing requirements.

Audio alarms should be a fundamental part of any fault arising. This ensures that a pilot who is concentrating on maintaining visual contact with the aircraft does not miss any abnormality with instruments or other alarms that are visual based.

CHIRP Comment: We are grateful for this, the first report submitted to CHIRP by a UAS remote pilot. It is interesting to see that the issues affecting UAS have direct similarities with manned aviation. It is easy to be overwhelmed with information and have one's attention divided; for this and all kinds of other reasons it is much better to operate as 2 crew. Also, the desirability of alerts having audio as well as visual components applies equally to manned aviation.

[Back to Top](#)

INFRINGEMENT WHILST DISTRACTED

Report Text: I conducted a flight from Le Touquet to [], routing directly across the channel via Lydd, Tonbridge Town (North East of Gatwick's Control Zone) and then West direct to [].

The infringement took place approximately 3 miles north of Redhill aerodrome whilst in contact with Farnborough LARS receiving a traffic service.

I descended to 1,300ft QNH (becoming a basic service) remaining clear of controlled airspace, beneath the Gatwick CTA on the leg TONBRIDGE town to M25/M23 Junction VRP. When north of Redhill (laterally clear of Gatwick Controlled Airspace) I initiated a climb to a target of 2,400ft QNH to remain clear of the LTMA 2,500ft base of controlled airspace. The aircraft had very good climb performance as it was light and so this happened very quickly. However, during the climb I was provided with traffic information. If I remember correctly, two separate transmissions on a primary contact (glider at Kenley Gliding) and another fixed-wing single-engine aircraft crossing left to right slightly above. After a good lookout I was visual with both. The good climb performance and traffic information/look-out which distracted me during the climb led to accidentally exceeding my intended altitude. Just as I noticed and began a safe urgent descent the controller informed me and verified my level. I made every effort to quickly descend again to a clear altitude. I believe the infringement lasted no more than 5-10 seconds.

My situational awareness was not compromised at any point. I knew exactly where I was and aware of my surroundings (including controlled airspace). This simply was an accident but I acted honestly with the Mandatory Occurrence Reporting Scheme through the CAA and NATS.

I read your reports monthly and believe that extending my honesty about my mistake may help me improve.

CHIRP Comment: Distraction is a common cause of airspace infringements and this example illustrates that the distraction need only be momentary if insufficient margin from controlled airspace is planned. The reporter had wisely allowed 200ft separation from the Gatwick CTA but when he climbed for the second time he allowed only 100ft from the London TMA. Had he followed the guidance in the Take 2 Initiative (plan a minimum of 2 miles and 200 ft where possible from controlled airspace) he would probably not have infringed the TMA. Details of the Take 2 Initiative are on the [GASCo Website](#).

[Back to Top](#)

AIRSPACE INFRINGEMENTS

Report Text: Our club has recently restarted operations to Scampton after a gap of several years. My training navigation exercises through Doncaster Controlled Airspace are planned for students to use Cottam Power station as their start point. They obtain a radar service from Waddington while inside Scampton MATZ, but Waddington are invariably unable to arrange a handover to Doncaster Approach. Having made their navigation HAT check from the start point, the student is then usually advised and assisted to file the abridged flight plan with more than enough time to obtain clearance before entering controlled airspace, although not the 10 minutes advised.

On this occasion, I was giving area and type familiarisation to a pilot who had recently joined from a club further South. He had planned his own route and chosen to start the navigation exercise at Gate Burton power station (North of Cottam power station). Waddington radar was not manned, but in accordance with SOPs we had made blind calls on the frequency before changing to Doncaster. As we approached the start point, I gave the pilot advice on setting off on his navigation exercise and the use of the integral GNSS equipment to confirm his drift estimate.

We set heading and I encouraged the pilot to make a positive HAT check and reminded him how to maintain heading by visual references on the horizon before advising him to call Doncaster for clearance. The frequency was busy, so the call was slightly delayed; in fact, he omitted our position from the call. I corrected the call but another aircraft transmitted at the same time. Immediately afterwards we heard Doncaster Approach calling "Aircraft approaching Dunshill Lakes squawking 7000 alter heading immediately you are entering controlled airspace". I took control and reversed track rapidly as I realised exactly what I had done. I had become so used to the time available after starting the navigation from Cottam that I had allowed myself to assume I had the same amount of time on this occasion, although the boundary of controlled airspace was only 2 miles from the start instead of 5. After a minute or so we obtained clearance to cross controlled airspace and we resumed the navigation exercise.

Lessons Learned: I can't say I learned anything new, apart from a reminder of my own fallibility. I am fully aware of the pitfalls of complacency, the hazards of airspace infringement and the need for proper pre-flight planning. I should have carried out a proper route brief as I would have done with a student. That should have reminded us of the distance to the controlled airspace and to call Doncaster at the earliest opportunity.

I mention my experience as I hope this incident, rescued by an alert controller, demonstrates that we are all able to be caught out, and that proper pre-flight planning is essential, no matter how many times we think we have flown the trip before.

CHIRP Comment: Thank you for this honest and eloquent report that highlights the need for thorough route study before every flight, no matter how familiar. It is good to hear about an alert controller taking prompt and proactive action to prevent an infringement.

[Back to Top](#)

OVERHEAD JOIN

Report Text: I thought you may be interested in the joining procedure for Stow Maries airfield.

Having referred to their website and telephoned for PPR I found the briefed O/H join at 1000ft QFE with no dead side and an 800ft circuit height somewhat challenging if not totally impossible, so joined downwind instead.

I did mention it to them, but there were no qualified pilots with which to discuss it.

I thought you may be interested, and if you agree with my opinion, they may appreciate some guidance from you.

Comment from Stow Maries Great War Aerodrome: Thank you for contacting us in regard to a pilot's safety concern with respect our joining procedures. I am pleased to say that the website is now in line with the various online guides. <https://www.stowmaries.org.uk/contact/how-to-find-us>

To clarify:

The correct procedure for Stow Maries is as per the Pooleys Guide entry:

Join overhead at 1200ft AGL. Circuit height 800ft AGL.

The height to join overhead gives a margin of 115 ft below Southend CTA-1 which should not be a problem for the average pilot. If the pilot is in communication with Southend Radar (130.780) then clearance to enter the base of the CTA will normally be given if required.

Descending from a height overhead of 1200 ft AGL to arrive downwind in the circuit at 800 ft AGL should again not be an issue for the average pilot who would make the descent in the crosswind leg. It should be noted that these are the same limits used at White Waltham where they have been well established for many years. In fact, this same procedure has been used at Stow Maries Great War Aerodrome for the past eight years with no issues.

The nature of this aerodrome and the sensitivities of our neighbours have played a part in drawing up these procedures, but safety is, of course, paramount, hence any request for PPR also receives a verbal briefing, from a standardised document, which highlights the above points.

CHIRP Comment: We are grateful for the explanation above and pleased to be able to publish this clarification.

[Back to Top](#)

NOTAMs - DOES ANYONE READ THEM?

Report Text: On Sunday 8th September 2019 an Air Display was being held above Foxlands Farm, Cosby Leicestershire. The event is subject to and holds an Article 86 Permission and was subject to 3 separate NOTAMS, one for the main event (Below) and 2 additional NOTAMs covering 2 Parachute Drops. The event also operates a temporary unlicensed farm strip, operating the display aircraft, which include high performance WW2 warbirds. The airfield was operating an Air Ground Radio Station and contact details were published as part of the NOTAM.

The NOTAM below was issued for the event and published some time in advance of the event.

Q) EGTT /QWALW/IV/M/W/000/035/5233N00113W003

B) FROM: 19/09/07 12:00C) TO: 19/09/08 16:00

E) AIR DISPLAY /AEROBAT ICS. WI 3NM RADIUS 523314N 0011234W (COSBY, LEICESTERSHIRE). FOR INFO (NUMBER REDACTED BY AUTHOR). 2019-09-0125/AS1

LOWER: SFC

UPPER: 3500FT AMSL

SCHEDULE: 07 1200-1900, 08 1200-1600

1415Hrs: The first aircraft involved was transiting from Dublin to Conington, flying directly over the centre of the airfield at 2000ft, where just 10 minutes earlier a Round Canopy Parachute drop was taking place, despatching 11 Parachutists from a DC3. 10 minutes later and a formation of WW2 Warbirds would have been in the air, conducting aerobatics and flypast manoeuvres. The aircraft made no contact with the FDD prior to the flight nor after and is unlikely to have even noticed the event taking place.

1440Hrs: The second aircraft seemed to be on a local navigation flight from Leicester, tracking directly towards the NOTAM area and then orbiting the site before departing East again. The flight was conducted within the 3nm NOTAM area, at a time when 4 aircraft were mid display, those being WW2 Warbirds. A mix of good airmanship on behalf of the lead pilot and the FDD/FCC team, monitoring aviation tracking applications, saw the conflict approaching. The lead took his formation away from the conflict traffic to hold safely away, as there was no RT contact with the aircraft. This caused a brief pause to the flow of the display, with visual monitoring from the ground and updates on R/T to the

display crews of the location of the conflict aircraft. The conflict aircraft orbited the display site at 1 nm and 2000ft from the display venue, before departing East.

Whilst a NOTAM is a warning and not Restricted, there seems to be a growing trend showing poor airmanship, which threatens flight safety and in truth the air display industry as a whole. Another significant event at an airshow would have major implications for this area of aviation. A RA(T) will now be applied for in the future, with an extended radius to provide greater protection to the event and local area. A RA(T) had not been used previously as GA traffic has never been a problem and as always, the majority respect the NOTAM area and why it's not a healthy thing to do!

CHIRP Comment: Plotting the location of events from the Lat/Long given in NOTAMs is laborious and susceptible to error. Pilots should read NOTAMs as a matter of routine but flight planning using appropriately configured and connected electronic aids where NOTAMs are flagged up automatically is recommended to minimise errors. Deliberately flying close to displays without contacting the Flying Display Director is foolish and dangerous.

A RA(T) for this, and similar, large events would be appropriate; note that applications for RA(T)s must be submitted 90 days before the event.

[Back to Top](#)

WAYWARD TECHNOLOGY DISTRACTS FROM THE BASICS

Report Text: This is a simple story about how I came within seconds of infringing airspace because of a most elementary error. I hope other pilots may learn from it.

I learnt to fly in the days when VFR navigation was all about, and only about, roads, railway lines, rivers and other features, your chart and watch. This was not only before electronic charts, but before GPS/GNSS. Later I bought a very basic hand-held GPS unit, in which waypoints had to be laboriously input using lat and long. But this nonetheless made accurate navigation so much easier. Then, some years ago, I switched to using SkyDemon on an iPad.

I am an enormous fan of SkyDemon. Like any combined electronic chart and GPS/GNSS, whether portable or permanently installed, it reduces hugely the workload of flying. Not only does it give position, track and time to next waypoint information, but if connected to a cell phone network you can get NOTAM and weather information in real time. I even use it to file Flight Plans.

There is an electronic PLOG feature in SkyDemon, which is very attractive-looking and has the benefit of keeping itself up to date with timings and using real-time wind forecasts if available. But I don't use it. I still draw lines on paper charts, write magnetic headings on them, and print out a paper PLOG which I manually keep up to date on my kneeboard during flight. Why? One reason is that I think it increases pre-flight situational awareness, but the main reason is because technology can fail. Even a certified, installed device from the likes of Garmin, can fail in flight, but a consumer product like an iPad is all the more vulnerable. So, I have always figured that having an instantly available map and paper PLOG to revert to in the case of in-flight failure of the technology is a good thing.

Yesterday it happened to me. I was happily flying along, taking a friend as a first-time light-aircraft passenger for a pleasure flight in good weather. I was flying parallel to, and a few miles north of the boundary of the controlled airspace of a major airport. Then my SkyDemon suddenly said it had lost location data. I was highly distracted by this annoyance. I tried putting it on the coaming over the instrument panel to get a better view of the sky, but in many hours of flying, it had never done this before. I fiddled about with it.

My required heading could not have been simpler: 090 degrees. There it was written on my PLOG. But I was highly distracted by this SkyDemon/iPad glitch. And a chatty passenger. My heading drifted right to 100°, then 105°, converging towards the controlled airspace. Suddenly SkyDemon regained lock and told me "controlled airspace in 0.5NM"! I veered left to 075° and avoided infringement by the skin of my teeth.

I was and am right to have manual back-up at instant readiness, but I didn't use it. What I should have done was put the wayward iPad to one side and used my DI, of course kept aligned to the magnetic compass, to steer 090°, or better still, a bit north of that, to get well clear of the controlled airspace before looking to remedy the situation with the technology. When I later reviewed my actual track from my ADS-B Out on flightradar24.com I went white when I saw just how close I became to infringement. The lesson – love and use electronic navigation technology, but don't get distracted from the basics of flying and navigating if it throws a wobbly – get yourself space and time before trying to sort it out.

CHIRP Comment: This excellent report provides a very good example of a common problem: managing a technical failure – sometimes referred to as threat and error management. Normal human behaviour is pragmatic and difficult problems are routinely abandoned as ‘too difficult’. However, pilots are susceptible to persevering with interesting technical problems beyond the point of prudence. The reporter is correct to identify, with hindsight, that he should have reverted to his paper chart immediately his SkyDemon/iPad began to malfunction and a turn of a few degrees away from CAS might also have been prudent.

[Back to Top](#)

Reports received by CHIRP are accepted in good faith. While every effort is made to ensure the accuracy of editorials, analyses and comments published in FEEDBACK, please remember that CHIRP does not possess any executive authority.

CHIRP FEEDBACK is published to promote aviation safety. If your interest is in improving safety, you may reprint or reproduce the material contained in FEEDBACK provided you acknowledge the source.

Contact Us:

CHIRP, Centaur House, Ancells Business Park, Ancells Road, Fleet, GU51 2UJ
01252 378947 | reports@chirp.co.uk | www.chirp.co.uk

