

CHIRP GA FEEDBACK

Issue No: 55

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International Federation of Airworthiness

WHITTLE SAFETY AWARD

The Trust has received the International Federation of Airworthiness Whittle Safety Award for its management of the aviation programmes.

The citation reads:

To Peter Tait, Chief Executive of the UK Confidential Human [Factors] Incident Reporting Programme (CHIRP) and his team, Mick Skinner (Deputy Director Engineering) and Kirsty Arnold (Cabin Crew Programme Manager and Administration Manager)

"In recognition of their contribution to aviation safety, through the development of a confidential reporting programme on human performance issues and concerns. An addition to formal reporting systems within the United Kingdom, the programme covers all aviation related sectors and disciplines."

Several of the reports published in the last issue prompted further comments from readers. We have published a selection of these below together with additional information where relevant.

CLOSE ENCOUNTER WITH HELIMED (GAFB 54) - A COMMENT

Report Text: CHIRP FEEDBACK 54 just arrived and was the first thing to read as usual. I found myself so horrified by the item on priority for Helimed flights that I had to write to you straight away. Reading it may make some pilots think that HEMS flights have some form of right of way under the Rules of the Air. HEMS pilots may take a similar view. But the pilots who have not read this will not know that. And pilots confronted by a helicopter that may or may not be a HEMS flight with an 'Alpha' callsign will not know what collision avoidance rules apply. The Rules of the Air in relation to avoidance of collisions must be universal and in accordance with Annex 2 of ICAO section 3.2 or our airspace will be unsafe.

I have to declare some slight knowledge of Helimed ops as my aircraft is co-located with the ### Air Ambulance and I know many of the crew. I also have a long-standing interest in collision risk, the analysis of mid-air collisions as part of a project on Class G airspace and the Eurocontrol initiative on Standard European Rules of the Air. From our analysis of collisions I know that the

vicinity of aerodromes carries the highest risk of collision for all classes of GA aircraft and situational awareness and the Rules of the Air are the only things that seem to be effective in mitigating that risk. Reducing collision risk is one of my personal missions.

You write that the policy on callsigns is in AIC 96/2008 and that a Helimed xxA callsign affords the helicopter the highest priority against all other traffic.

AIC 96/2008 states that the priority system is "designed for use with tactical handling by ATC". You mention that "the Rules of the Air do not explicitly afford any priority" but actually the Rules of the Air have nothing to say on this matter at all, neither explicit nor implicit. The Rules of the Air set out the arrangements for the avoidance of collisions and these are absolute. They are not varied by anything in AIC 96/2008 or any other UK aeronautical publication. The ANO reinforces this in Section 2 General Para 2 stating that "The Rules apply to all aircraft within the UK" except that Section 4 paragraph 8 which sets out the rules for avoiding aerial collisions and gives a variation to police AOC (*Air Operator's Certificate*) aircraft in that if they have the right of way they do not have to maintain height and speed. It gives no variation to HEMS aircraft.

Any aircraft which is in potential conflict with any other aircraft, HEMS or otherwise must follow the rules and if it has right of way must maintain its height and speed. I agree with you that other aircraft should keep out of the way of a HEMS aircraft so as to speed its task but where an aircraft finds itself in a position of risk of collision it must follow the rules of the air and that applies to HEMS aircraft just as it does to any other aircraft.

I believe it is very important not to suggest to pilots that somehow the responsibility for the avoidance of collisions is different where a HEMS aircraft is involved. A conflict often arises suddenly and those involved must know exactly what to do and must also know what the other is expected to do. A HEMS aircraft may or may not be recognised and the callsign may or may not be known. The priority system is for ATC handling only and not for situations where there is direct interaction between aircraft where the Rules of the Air are relevant. Perhaps most importantly, your item suggests that the HEMS pilot believed his aircraft had special right of way over other aircraft in a situation where there was a risk of collision and avoiding action was necessary. This is dangerous, gains no significant time and I am sure would not be endorsed by the CAA.

I believe that a way should be found to ensure that pilots and especially HEMS pilots are clear as to their responsibilities.

CHIRP Comment: The third paragraph of our comment in the previous issue stated clearly that the traffic

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priority given to a flight operating with an 'Alpha' suffix is limited to an ATC service, where the controller will both assign priority and provide separation. We do not believe that the concluding paragraph of the CHIRP comment could be interpreted as implying that a Helimed aircraft is afforded any priority for collision avoidance under the Rules of the Air; however, for the avoidance of doubt, **there is no priority.**

In addition, it was not our intention to convey the impression that HEMS pilots widely disregard the Rules of the Air when undertaking operational flights; they are a highly professional group of pilots undertaking an important role for the benefit of the general public.

It might be helpful to summarise the other actions that we have taken in relation to the report in question. The apparent lack of awareness of the meaning of the 'Alpha' suffix has been raised with the CAA at a senior level; we have requested that the Authority review what might be the most appropriate way of identifying operational HEMS flights and to promulgate the information more widely to both the GA and commercial air transport communities. Also, the General Aviation Safety Council (GASCo) has agreed to include a brief mention during Safety Evenings to increase awareness. In relation to the apparent misperception of some Helimed pilots that the suffix might afford them some degree of priority when operating in Class 'G' airspace, we have proposed to the CAA that this point should be clarified with all UK Helimed units through the CAA Flight Operations Inspector designated to oversee each unit's operations. To further raise awareness, an item on the subject was published in the latest issue of Air Transport FEEDBACK, which is distributed to all holders of professional pilot licences including those employed to undertake Helimed operations.

The following comment was one of several received from pilots attending the same fly-in as the author of the report published on Page 4 of the previous issue

POOR CIRCUIT DISCIPLINE - FLY-IN (GAFB 54) - A COMMENT

Report Text: Having read the latest CHIRP GA FEEDBACK (Issue 54) it has prompted me to file this report which I have aired on public forums already. I strongly feel without some action a fatal accident is inevitable.

Like the pilot report on Page 4, a friend and I flew to the event in question. I attend this fly-in and other fly-ins whenever possible but am probably not prepared to take the risk any more. On arrival at the hold to the west of the airfield it was clear that more than one pilot in the area, like every other time I have flown in to the events, had no idea of the procedures. I have previously heard people call up for a Basic Service obviously not even aware despite the NOTAMs that an event was in progress. There was no traffic in the hold but more than one pilot was clearly making straight in approaches despite all the promulgated briefings.

One particular aircraft I know coming in non-stop from Southern Europe was calling from some distance out for joining information. He clearly did not understand the procedures. I talked to him on the ground later and he

had seen the brief but did not understand it. So he just flew in anyway! When we felt the approach was clear we joined left base as per the procedures. It was clear that the foreign aircraft was still out there somewhere but we did not see him and from his radio calls it was not obvious where he was. As I established on final it was clear that the foreign aircraft was getting closer and was beginning what I think was a straight in approach. We both were looking very hard for him and in the end realising he was on an approach from somewhere I stopped my descent to try and see where he was and decided to go around. At this time my passenger became visual with him as he was behind and below us I turned slightly left away from him and commenced a climb and did a go around. I think if I had continued the approach we could well have collided; he passed slightly to our right and only a few hundred feet below us.

I might not be popular for this but I think the ATC procedures in place are partly responsible for this close call, the other factor being the pilots who just don't read and follow the procedures.

Firstly, the lack of any R/T call other than "Final" means that anyone who just swans in thinks the approach is clear as they hear no calls.

Secondly, whilst I am loath to criticise ATC as they have the patience of saints, and are really working hard to fit everyone in, another problem here is caused by ATC. It was clear the foreign aircraft was not following procedures and was just coming in. As I have experienced more than once, ATC just fitted him in but without any radio calls from everyone following the arrival procedures it actually meant he just barrelled through everyone else.

I love the fly-ins but don't think I will do one at XXX again unless it is clear that the procedures have changed; it's just too big a risk.

Lessons Learned: Enforce the procedures or don't have them.

CHIRP Comment: Events attended by large numbers of visiting aircraft pose particular challenges for organisers.

One of these is promulgating the essential information required for pilots planning to attend the event including the arrival and departure information. The experience from major international shows is that such information must be presented in a simple, easy-to-understand format that, if necessary, can be easily reviewed by both UK and foreign pilots. A brief summary of the key arrival and departure information that pilots can carry with them will assist understanding.

Secondly, it is incumbent on the organisers of such events to have a contingency plan to deal with pilots who arrive without having reviewed the essential information.

The third point relates to the use of VHF. Restricting radio calls to prevent R/T congestion in the manner described might be perceived as assisting both the air traffic service and pilots; however, restricting its use to a 'Final' call denies pilots situational awareness of the location of other aircraft and can be a contributory factor in the type of close encounters at such events

that have been reported to us or investigated by the UK Airprox Board.

A CONTESTED DEPARTURE (GAFB 54) - A COMMENT

Report Text: Hello, CHIRP Team. I see in 'A Contested Departure' that you comment, "When operating under an ATC or aerodrome Flight Information Service (FIS), never enter a runway unless you are sure that you have been cleared to do so" My understanding is that when operating under an aerodrome FIS it is entirely up to the pilot whether he enters the runway; no clearance to do this is given by the Flight Information Service Officer (FISO).

I have been teaching my students as per a GASIL of, probably 1999, wherein an article headed "Aerodrome FISO Responsibilities", "Air Traffic Services from 1st January 1999" says "If the aircraft is taxiing for departure then the FISO will pass instructions up to the holding point of the runway to be used for departure. When the pilot reports ready the FISO will pass relevant information for the pilot to assess and decide when he/she is going to line up."

Perhaps you could clarify, please.

CHIRP Comment: This comment is substantially correct in stating that under an aerodrome Flight Information Service it is a pilot's decision to assess and decide when it is safe to enter an active runway. However, there are a couple of caveats, one of which was relevant in the report published in the previous issue.

The first is that under an aerodrome FIS a pilot is required to report, "Ready for Departure"; the FISO will then normally give details of any traffic and will state, "Take off at your discretion". This is a clearance for the pilot to enter the active runway when he considers it safe to do so. The second is that the FISO can issue the message "Hold position" in response to a pilot reporting "Ready for departure".

It was a query as to whether the FISO had issued a "Take off at your discretion" clearance that led to the ATC request to speak with the reporter in the report published in GA FEEDBACK 54.

The CAA has recently produced a new FISO Manual (CAP797) that can be downloaded from the CAA website in PDF format; Section 4 includes all of the phraseology relevant to the take-off.

STANDARD OVERHEAD JOIN

Report Text: I recently flew with a group of friends into an airfield which requires all joins to be 'standard overhead'.

The westerly runway was in use with a left hand circuit. We were all approaching from the North East. I called with several miles to run and, having got the airfield details, planned my join; this was to fly to the upwind end of the runway at circuit height + 1,000ft, turning left onto the live side then crossing the downwind threshold before descending dead-side and calling, "Dead side descending". My colleague called a few minutes after me with a few miles to run, acknowledged the overhead join but, unknown to me, positioned straight into the

dead-side. I assumed that my colleague was a good distance behind me.

Having flown through the overhead and crossed the threshold, I called "Dead-side descending". Shortly after my colleague called the same. I positioned for and called, "Downwind". This made my colleague realise we were very close. My colleague called "Downwind" and then saw me, very close by under their nose. I had been under their nose through the entire of the dead-side descent, probably the closest I've come to another aircraft without being in formation!

On the ground we discussed what had happened; my procedure flying over the live side then onto dead side had reduced our separation, they had joined straight into the dead side, with me just in front throughout our descents. We consulted the CAA overhead join poster on the clubhouse wall. It does not really deal with the case where aircraft approaches the airfield from the dead side.

Lessons Learned: The overhead join relies on all aircraft flying the same flight path. If everyone goes through the overhead then this should allow pilots to locate all of the other traffic and position appropriately. Having discussed this with many pilots there is confusion on how to join when already on the dead-side, with many people taking the shortcut and descending straight into the dead-side.

The CAA safety poster doesn't cover this situation and it is easy to see how people make their own procedure. I think the CAA poster and guidance in the safety sense leaflet should be amended and include aircraft joining from positions other than the live side. I will also work harder on my lookout scan and have noted that by loosening my straps I can see directly behind me.

CHIRP Comment: This report highlights one of several limitations in the current published CAA guidance on joining/flying a visual circuit; we have highlighted other aspects in previous issues of GA FEEDBACK.

As the reporter correctly notes, the joining procedure described in the CAA safety poster that is widely used only depicts a direct arrival track at 90deg to the runway -in-use straight to the start point for the standard rejoin, crossing the runway-in-use from the live side to the dead side. The diagram in the CAA General Aviation Safety Sense leaflet No.6 e - 'Aerodrome Sense' (page 3) does contain advice to "Fly around the overhead level at 2,000ft" prior to commencing a descent on the dead side, as the reporter performed. However, the reporter's colleague appears to have performed what is commonly referred to, but not defined, as a 'crosswind join'.

One of the 'Significant Seven' safety risks that the CAA has identified from an analysis of accidents and incidents is 'Airborne Conflicts'. An Action Group has been established to review the risks in this category and propose mitigations. One risk that is being assessed is joining the visual circuit; a sub group is currently undertaking a review of circuit joining procedures.

CLASS 'A' AIRSPACE INFRINGEMENT

Report Text: I was returning from XXX to my home airstrip, following a familiar route. On the climb out from XXX on my planned heading, I was intending to level out

as usual, 100 ft below the Class 'A' Controlled Airspace (CAS), the lower level of which starts at 2000 ft. I was squawking the recommended transponder Code with Mode C and also listening out on VHF. My aircraft is mode S equipped.

It was moderately turbulent and there were strong thermals. In the climb I was distracted by a large insect behind my sunglasses. Having removed it, I noted I was 150 ft above the base of CAS. I reduced power and descended immediately. I don't believe I created a conflict as my position/heading was well separated from and parallel to the approach path for inbound large aircraft.

Radar did not contact me and I elected not to contact them to apologise as the frequency was very busy. (Otherwise I would have called to own up). I continued till clear of CAS, then climbed to 2,300 ft and routed round the NE end of the CTR to my destination as I normally do.

As an instructor I am ashamed this happened, as it is something I watch for with students as we climb out in this position. My own aircraft has significantly greater climb performance than our training aircraft.

Lessons Learned:

1. It's good to use the listening squawk. Had I caused a conflict, #### Radar would have been in touch.
2. In future, I will level out immediately before dealing with a distraction.
3. I will remember to take into account the climb performance of the specific aircraft I am flying. It takes only a few seconds for a climb to become an infringement.
4. In turbulent conditions, it would be prudent to allow more than 100 ft margin below CAS.

CHIRP Comment: It is probable that ATC had noted the reporter's minor infringement but on this occasion had been content that no conflict existed.

However, it is most important to understand that even a minor infringement of Controlled Airspace, such as that in this report, may require an ATCO to issue avoiding action to IFR traffic in order to maintain/re-establish the required separation from unknown traffic (5nm/5,000ft). This highlights the importance of using the listening transponder code and VHF frequency, which will permit the controller to confirm an infringing aircraft's identity, position and altitude, after which the aircraft can be regarded as 'known traffic' and vectored/descended out of Controlled Airspace.

Also, why make your flight much harder than it need be by planning to cruise only 100ft below Controlled Airspace? Not only does it render you vulnerable to a minor distraction regardless of the weather conditions or your experience, but it also requires almost constant attention to monitoring your altitude at the expense of maintaining a good lookout scan. It is also within the band of accuracy for Mode C, which might provide an indication to ATC that you are higher than your altimeter indicates. As in the case of horizontal clearances, where you should make an allowance for GPS/map display accuracy, you should make a similar allowance for the accuracy of your Mode C data.

CONTROL ZONE INFRINGEMENT

Report Text: I had booked with an airfield in Southwest England to carry out three instrument approaches to retain my instrument currency. I was 'under the hood' but had two lookouts in the aircraft. The weather was generally VMC.

My first approach was an RNAV approach to the westerly; I planned to join at the Initial Approach Fix. I called the airfield on their approach frequency approximately 25 miles from their field. Although they acknowledged me I couldn't hear their transmissions clearly and so I called them on Box 2, the same applied.

Another aircraft on the frequency made a transmission to the airfield to say that he could hear me, but I then called London Information for a radio check and they acknowledged "Strength 5". I asked London to call the airfield by telephone and let them know that there appeared to be a problem with their VHF transmitter. London agreed and I remained on the frequency whilst this was happening. London then came back and suggested that I climb to 3,000 ft and see if the reception was improved. I did but then noticed that whilst this had been going on I had entered the AAA CTR below 3,500 ft without permission. I was near to exiting the zone at this point and managed to establish two-way communications with my destination airfield and was cleared for the RNAV procedure. The rest of the flight including the RNAV, an NDB/DME and a SRA approach went smoothly and I landed at the airfield before returning to base later in the day.

Lessons Learned: Though I was current as an FAA rated Instrument pilot, I had not been flying as much during the last six months as was normal for me. As a result of me being distracted by my inability to establish two-way communications with the airfield, I failed to properly follow the 2nd clause of the pilot's mantra "Aviate, NAVIGATE Communicate".

Once I realised my lapse of competent airmanship I decided to learn from it and 'own up'. Though I have an American Commercial Pilot's License, I do not operate professionally as a pilot but purely use my aircraft in conjunction with my work.

CHIRP Comment: This and the previous report are good examples of how easily experienced pilots can become distracted by unforeseen circumstances.

If you should encounter an unexpected situation, the two vital considerations are to continue to fly the aircraft safely and maintain situational awareness whilst reviewing your options.

ANYTHING TO REPORT?

If you would like to submit a report to CHIRP, you can do so by submitting an electronic report via our secure website www.chirp.co.uk or download a report form from our website and post/fax it to us (see P1 for our contact details).