AVIATION FEEDBACK

CHIRP *An independent and confidential reporting system for the Aviation industry*

GENERAL AVIATION

Edition GAFB 103
March 2025

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When the Holes in the Cheese Align

Dusting off the flying gloves in preparation for Spring

Contents

Nicky Smith
Director Aviation

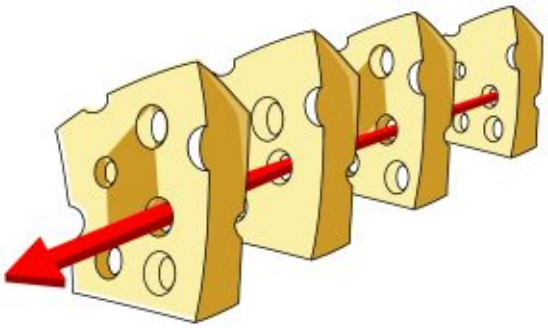
Welcome to the early Spring edition of General Aviation FEEDBACK. I say Spring with a degree of optimism, and indeed a few brave bulbs are peeking their heads out. However, on a bitterly cold and rather dreary late February afternoon, just a few weeks into my tenure at CHIRP, the prospect of aviators blowing the cobwebs off their wings, chutes, planes and other craft still feels unlikely. But aviate we will and, for all but the hardened who've pressed on over Winter, this is a time for preparation, planning and revision.

Even the most accomplished pilots, controllers and skydivers amongst us will get skill-fade after a lay-off, so an opportunity to get heads in the books, check out what's changed in regulation land and refresh the essentials, will be time well spent. There's plenty in this edition of FEEDBACK to give you food for thought in this area. Check out the 'I Learned About Human Factors From That (ILAHFFT)' honest account of a hornet infestation in an aircraft that had been left out without covers – a pretty close call for the pilot concerned. Then there's a timely reminder about Air Traffic Services that are available and the differences between them. We also have a super link to videos of the circuits at Popham, complete with everything you need to know whilst flying them and a pilot's eye view. You can literally 'fly the circuit' in real time from the safety of your own home, practising radio calls, checks and running through speeds etc – certainly a vast improvement on the cardboard cockpit and vivid imagination required when I was learning to fly in the mid-80s.

Which reminds me that I've not introduced myself yet as your new editor. I've recently taken over from the illustrious Steve Forward and have some seriously large shoes to fill. Whilst Steve may have retired from CHIRP Aviation after an impressive 5 years at the helm, he's not left the world of safety altogether, having recently taken on a new voluntary role as a Director at the UK Flight Safety Committee. We're delighted to retain Steve's experience of and enthusiasm for all things Air Safety in the industry. Like Steve, my background is also the RAF, where I started learning to fly on Cambridge University Air Squadron, bashing the circuit in the venerable Bulldog. A life-long helicopter enthusiast, I was lucky enough to specialise in whirly birds, flying mostly Search and Rescue and later, in civil aviation, as an Air Ambulance pilot. I've even dabbled in a little paragliding when weather permitted. In latter years I've specialised in areas where I've long had a general interest: safety management and human factors. So, I join CHIRP with an existing passion for improving safety in aviation and am looking forward to the challenge and continuing where my predecessor left off.

A few of our selection of reports from this Quarter focus on the age-old thorny issue of communication. This facet of human factors is an absolute keystone in aviation with Accuracy, Brevity, Clarity being paramount. You may spot a thread of the phenomenon 'it's not what A says, it's what B understands' too. There are also a couple of examples of bad attitude, for which there's never any place in aviation, having safety implications. When considering effective Communication, please also remember Consideration and Compassion in all your human interactions.

One of the great strengths of the GA arm of CHIRP is that we have access to safety lessons learned in every area of crewed aviation imaginable. Whilst on the face of it, ballooning, light aircraft, autogyros and skydiving for example may seem completely diverse, the human factors experiences will almost always read across. Not from a CHIRP report (although it would have been a brilliant one), I recently watched this hair-raising video (https://www.youtube.com/watch?v=csDRdqMH3Kk) about a hang glider pilot who mistakenly connected his carabiner to the velcro rather than the webbing of the extension hang loop. Entitled 'The flight that almost killed me', it's a frank and courageous account of the sequence of events, including hanging initially from a piece of velcro that eventually and suddenly gave way (surprise, startle ++), that very nearly were fatal. Even though he checked his kit before launch, he missed the mistake. This could apply to any of us. How often have you looked at something and 'seen' what you expected to see? It's a salutary reminder when doing safety checks to 'look' in a different, more inquisitive and questioning way. Equally, hats off to this pilot for posting a self-critical and honest assessment. We learn from our own mistakes, but so much better if we can learn from the mistakes of others.



The human factors and aviation safety world recently lost one of its greats – Dr James Reason. Amongst a plethora of ground-breaking work, his research profoundly influenced how the aviation industry approaches human error and risk management, highlighting the importance of understanding human factors in accidents. In the unlikely event that you've not heard of him, I implore you to undertake a little light research; you'll certainly learn something thought-provoking that will enhance your own contribution to flight safety. In addition to the famous Swiss Cheese Model of accident causation (what defensive barriers and cheesy holes can you spot in this edition's featured reports and ILAHFFT?), Dr Reason also proposed the 12 Principles of Human Error. So, my thought for this edition and one worth considering in everything we do, not just flying, is his first 'principle':

*"**Human error** is universal and inevitable – it is not a moral failing. While human fallibility can be moderated, it can never be entirely eliminated."*

Dr James Reason CBE, May 1938 – Feb 2025

Finally, I'd like to make another introduction and welcome Bill Dean to the CHIRP Aviation Team as the first ever CHIRP Advanced Air Mobility Programme Manager and Deputy Director Aviation. Bill is a former military fast jet pilot who has specialised in flight test and safety throughout his career, latterly with Rolls-Royce and Boeing. In addition to his work with CHIRP, he's keeping his flying qualifications current by display flying warbirds

with Navy Wings. Please read on for Bill's thoughts about preparing for the very specialised demands of the upcoming display season.

Grab a coffee, relax and take some time out to enjoy this edition of FEEDBACK.

Nicky Smith, Director Aviation

Safety Reporting and Air Display Flying

At this time of year, numerous air display teams across the UK, as well as private individuals, will be completing their winter maintenance activities and gearing up for another busy air show season. CAA organised or endorsed pre-season display symposia, held every year in Feb/March, complement the annual training preparations with a range of air safety and human factors focused presentations and workshops. We here at CHIRP are fortunate to have the GA Advisory Board members sourced from a wide range of aviation backgrounds, including flight instruction, air safety, as well as those with many years' display flying experience. The air display community is wide reaching and includes not only pilots but engineers, event organisers, air display directors and operations teams, display authorisation examiners, commentators, ATC providers, the CAA oversight team, and the list goes on.
Please, if you are one of these key stakeholders in the UK air display community, working or volunteering in this upcoming season, do remember the resource we have here at CHIRP to confidentially, independently, and professionally handle any report you feel you want to submit, particularly those reports, for whatever reason, you are hesitant to submit or otherwise communicate within your team or organisation and, as is often the case, amongst colleagues generally.

Bill Dean, Deputy Director Aviation

We're Hiring

After more than four highly effective years in the role of CHIRP Engineering Programme Manager, Phil Young has decided to step down and enjoy a well-deserved retirement and quieter life after an impressive career in aviation. CHIRP is indebted to him for his wisdom, knowledgeable and empathetic handling of reports, and his willingness to go the extra mile in order to provide the best service possible to those who seek our help. Phil will be sorely missed, but our work goes on and, as a result, we're actively looking for someone to take on the role from April this year. It's a part-time role as a contractor, one day a week equivalent, suited to a certificated, experienced aviation engineer, with a good understanding of safety and human factors and who has a passion for helping others and giving something back to aviation. If you think you fit that niche, then contact us at mail@chirp.co.uk for the attention of CHIRP Director Aviation and we'll be glad to discuss what the role entails.

Report to CHIRP!

Our reporting process is simple and quick using either our website portal or our App (scan the appropriate QR code shown or search for 'CHIRP Aviation' – avoiding the birdsong apps that come up!). In our reporting portal you'll be presented with a series of fields to complete, of which you fill in as much as you feel is relevant – not every field is mandatory, but the more information you can give us the better. Although you'll need to enter your email address to get access to the portal so that we can screen out bots etc, none of your details are shared outside CHIRP, and we have our own independent secure database and IT systems to ensure confidentiality. That way you can help to improve safety by sharing important lessons without worrying about possible consequences. Anything that could identify a reporter is removed from our reports before progressing or publishing them, and we liaise with the reporter in every step of the process. Each report plays its part in raising awareness of important safety issues and wider trends and provides lessons for all to learn from. Report-by-report we can make aviation safer – as our strapline says,

"you report it, we help sort it."

Previous GAFB - Comments

FEEDBACK layout and readability

Reader's Comment: First, thank you for CHIRP and the FEEDBACK newsletter. As a GA pilot I learn something from every case and hope to avoid repeating others' mistakes.

I wanted to report that the pdf version is a little difficult to read on a computer screen because of the 2- column layout. My 22" screen is not big enough to view the whole page so is set to page width, but this requires me to scroll down one column, then scroll upwards to the top of the second column before

scrolling down the page again. Perhaps it is designed to be printed out. Generally I find pdfs useful in that I can zoom in to the ideal level. I think a single column like the web page would be easier to read.

CHIRP Comment: We were grateful to receive a number of comments about the ease of readability of FEEDBACK on a tablet or mobile device. As a result, we've made some changes to our website and app so that there are now three different options for viewing FEEDBACK. All can be accessed through https://chirp.co.uk/aviation/safety-resources/general-aviation/ and by selecting 'View' or one of the two options presented by the download button to the right. The **Downloadable Print PDF** is intended for those who wish to print it out or for use on larger screens. The HTML **View** on our website is designed for tablets etc and provides easy options for navigating to different sections of the document. Finally, in response to your feedback, we have a new version: a **Single Column View** for those who also want to read in pdf format but on smaller tablets or screens. Don't forget that we also print and send out copies to flying clubs across the country; if your organisation isn't on our list and you'd like to be added, then please let us know by contacting us at mail@chirp.co.uk. Hopefully there is now something for everyone, whatever your reading preferences.

CHIRP discount at Pooleys

Pooleys have kindly agreed to support CHIRP's fund-raising activities by allocating us a discount code on their website shop. Enter the code 'Chirp' (case sensitive) at the appropriate point at the payment stage to get 5% discount and generate some commission for CHIRP. Sadly, this doesn't apply to the purchase of Bose headsets, but everything else qualifies! If you do use Pooleys for your purchases, or know other people who do, please do share the code. The more the code is circulated, the more it is used and the greater the commission generated to help CHIRP build its resources to do more.

POOLEY'S FLIGHT EQUIPMENT

I Learnt About Human Factors From That

...and West Ham won the FA cup

It was 9th May 1980 and I was a young, over-confident and mildly thrusting Air Traffic Controller at RAF Honington. In my second tour, I had enough experience to feel relaxed, but not enough to appreciate my limitations. Honington in those days was a fully active fast jet airfield, with four resident Buccaneer squadrons, in the centre of a combined MATZ and responsible for Mildenhall (wide bodied aircraft) movements as well as co-ordinating Lakenheath fast jet activity. It was in other words, an extremely busy place.

One of the oddities of the Buccaneer, the finest strike aircraft the RAF has ever possessed (other views maybe available!!) and affectionately dubbed the 'banana bomber' due to its unique profile, was there were no dual control versions. Therefore a pilot's first sortie in it was also a first solo. This was known as FAM1 flight and an experienced instructor was carried in the rear navigator's cockpit, where there were no flying controls, to provide appropriate 'advice and encouragement' when required – brave fellow! There was therefore a requirement for pilots to be familiar with the unique Buccaneer cockpit environment whilst airborne before they headed off on FAM1. Sadly simulation was nowhere near as advanced as it is today, so the solution was to equip a Hunter two seater training aircraft with a Buccaneer cockpit hence the Hunter Mark7B. This workaround simulated the cockpit, but of course performed like a Hunter ie beautifully at all speeds, unlike the Buccaneer, and crucially it had only one engine. Whilst an engine failure in a Buccaneer was a concerning event, the same in a Hunter was an altogether more serious proposition. The recovery technique for an engine failure in a Hunter was called a 1 in 1 approach. A clean Hunter would glide 1NM and lose 500 ft. Double that for a turn. Thus, the idea was to

vector the gliding Hunter towards final approach such that when range was equal to height (ie 4NM @ 4000ft), the pilot was instructed to commence the 1 in 1 procedure, gear would be dropped and handily the aircraft would lose 1000ft for each mile and end up on the runway, piece of cake…

So that's the cold war scene set, now if you are sitting comfortably, I'll begin. That day I was the radar director responsible for directing traffic around the Honington radar pattern. However, hovering in the background of my consciousness was the realisation that that night at Shawbury there was a dinner night for all of the RAF Air Traffic Controllers to celebrate 30 years of RAF ATC (I still have the tie). This was going to be one mean party and I was seriously short of drinking vouchers! All was quiet in the approach radar room so I was allowed to pop out to the bank to rectify this sad, but alas common, junior officer situation, leaving the approach room with the quip "I'll be back in 15 minutes".

Actually 25 minutes later I was back, drinking vouchers safely ensconced in my wallet. I walked into the approach room to find total carnage; the unit was absolutely humming. Lakenheath, Mildenhall and Honington activity had exploded into action. The Supervisor looked at me, looked very pointedly at his watch and yelled at me to sit down and vector a Hunter for a practice 1 in 1 approach. Everything was exactly as I left it, headset, chinagraph pencil, everything. Without pause I was immediately given a handover on the Hunter and commenced the 1 in 1. As described above it could be a bit of a mind boggler, but satisfying when it worked.

It was all going so well as I rolled onto final approach for RW27 at 6 miles and about 5000ft. The 1 in 1 continued towards gear down point, at which point something came out of the radar overhead in the opposite direction and flashed past followed by another and another. I was confused. The Supervisor asked where was my Hunter; I told him it was 5 miles East. There followed a pause then the immortal shout "***EAST, EAST we're on RW09!***". The penny dropped with a resounding clang. The runway had changed whilst I was away and I had not realised. The other traffic were departing Buccaneers from my airfield, luckily their initial rate of climb was not spectacular and my traffic was high. I had to break off my Hunter and reposition for the correct runway. I can just about laugh about it now although those words from the Supervisor will be with me forever. I of course then had to grovel to my supervisor and talk to the pilot, a senior instructor, about what had just happened, both of which were not comfortable exercises and rather took the edge off my day.

Then there was the official reporting. In those days no such thing as a safety report so just a ticking off from both parties and with a final "you won't do that again will you" comment from the Supervisor it was put to bed. I don't think it was even logged; after all nothing actually 'happened'. Quite correctly I can't see that being the outcome today!

So, what lessons can be learned from this rather sorry state of affairs? Firstly, make sure you don't leave preparation for an evening event until the very last minute. Prior Preparation Prevents P**s Poor Performance and all that. Secondly, always check what is happening when you have lost situational awareness for any length of time. Don't assume that just because it looks the same, it actually is. It's fair to say that Expectation Bias was in evidence. Thirdly, being the 'good old days' a large dose of common sense was applied, as can be seen by the fact that it is still as clear a learning point to me today nearly 42 years later as it was then. Finally, how do I remember the exact date? That's easy, the next day on the way home, hungover and broke after a great party, I listened to West Ham win the FA cup on the car radio…

A Sting in the Tail

Sunday 27th October was a perfect day for flying. My preflight complete and everything being normal, I taxied out, which was uneventful. I made my radio calls and proceeded to take off. However, as I was trundling down the runway and at about 50-55kts, the nose wheel just starting to lift, I got showered in live hornets that had decided to make a winter home deep in the air vent on the pilot-in-command side. Training kicked in (***Aviate / Navigate / Communicate***) so I pulled the throttle, gently applied brakes, kept straight and announced my intentions. Having cleared the runway and very calmly taxied in (with my new friends on my lap), I shut down.

Then I ran like the clappers doing a little dance as I went. Never been so scared in my life, but grateful it all happened on the ground (ish) !!!

After satisfying myself that the hornets had vacated the cockpit (some with gentle persuasion), I inspected the barrel vent and looked in the air vent entrance point; on a C152 this is located in the leading edge of the wing. Whilst I couldn't inspect the entire system, I decided that I would keep the cockpit vent shut to be on the safe side and continued with my planned flight to an airfield in Lincolnshire. However, whilst transiting the Wash (Norfolk into Lincolnshire) I just happened to look at the vent and noticed that it

had worked itself ever so slightly open, just a crack. To my surprise there was, what can only be described as, dozens of hornet legs poking through the crack. I jammed the vent shut with force, completely re-sealing the vent and then observed as many as 4 to 5 hornets falling from the wing vent entrance point in close succession.

At my destination, I re-checked the vent system and again satisfied myself that this time there were no further hornets in the systems and departed for my return flight to my base in Suffolk. On this occasion with the vent jammed shut and periodically checked, I saw no further hornets falling from the wing and no evidence of the hornets back at my base field.

What did I learn from this unnerving experience? Firstly, undertake better winterisation mitigations, particularly when the aircraft is kept outside, noting to start this earlier in the season and prior to the time that insects and animals start to hibernate. Additionally, have the system inspected before further flight and don't just assume that it will be ok.

[**Aside**: I am currently investigating if there are any non-corrosive insecticides that can be used in the vents that are not toxic to humans and actively seeking advice from my maintenance organisation, since I am not sure how best to approach this situation, considering the potential violent nature of hornets to both myself and that of the maintenance people.]

CHIRP Comment:

The above was a report recently submitted to CHIRP and, with the reporter's consent, we decided to include it in the ILAHFFT section. The whole event must have been quite terrifying and we applaud the reporter for keeping their composure during the take-off and calmly aborting it to taxy back in. The absolute priority when something unexpected occurs is to keep 'flying' the aircraft and the reporter did a great job of that, even remembering to get out a call to let others know what was occurring. It was probably a bit brave to then have another go without a more detailed investigation of the vent system though, although hindsight is a wonderful thing! As the reporter says, it probably would have been better to have had the whole system inspected first before trying to get airborne again. We all know the old adage:

'it's better to be on the ground wishing you were in the air than in the air wishing you were on the ground'.

There are plenty of lessons here for everyone about how we prepare our aircraft for over-wintering using bungs etc – we've seen incidents with mice, flies, snakes and even a racoon in the past, but hornets are a new one. Aircraft present a lovely warm shelter with access holes for curious animals who just don't understand about flight safety. The last thing we need to contend with in the air, especially if we're a bit rusty ourself, is an angry swam of stinging insects who've been rudely awoken from their slumbers. Remove temptation from their way if you possibly can and whenever you fly, especially when the aircraft has been on the ground for an extended period, always expect the unexpected.

We need your ILAHFFT stories!

The value of ILAHFFT is that it provides insights from those who have been there, done it, and have lessons for all of us to learn. If you have any anecdotes or amusing 'there I was…' stories then please do share them with us so that we can pass on the messages and inform others (ideally in a light-hearted and engaging manner). Send any interesting tales to mail@chirp.co.uk and put ILAHFFT in the subject header – we promise full confidentiality to protect the innocent (and not so innocent!).

Reports

Report No1 - GA1376 – Poor controller handover leads to confusion

Initial Report

Routing between Luton and Stansted CTRs at 1500ft. Weather conditions not great, RADZ with broken cloud 1500-2000ft, poor viz in showers and deteriorating as I flew south to IMC. For added traffic awareness in this busy airspace choke point, I requested a Traffic Service (TS) from Farnborough LARS North on 132.800. Passing North Weald outside of Stansted TMZ, I requested a temporary frequency change to Stapleford A/G to get permission to route through their ATZ. The LARS controller agreed, told me to retain their squawk and to re-contact him once I had passed through the ATZ. Passed through Stapleford ATZ, signed off with them and retuned 132.800.

I then heard a clearly different LARS controller frantically trying to call me. I answered and after he had given me traffic details of aircraft in the Stapleford circuit, which I could see, he then started to berate me for not maintaining a listening watch under a traffic service and added that I had just infringed the Stapleford ATZ! I explained that the previous controller had given me permission to leave their frequency and had downgraded me to a basic service. He then realised he hadn't been handed this over on the controller change. He then asked me to contact them on 132.225 and change squawk.

I rarely ask for any radar service from Farnborough, but felt that, if I had been a low hour pilot who was flying in marginal weather conditions, instead of a 6,000hr CPL, this would have been added stress to what could have been an already stressful situation. I am taking the time to write this because I suspect this kind of thing happens a lot and never gets investigated through any official channels.

CHIRP Comment

This report highlights how easy it is for confusion to lead to misunderstanding and then interfere with what should otherwise be routine communication between an aircraft receiving an air traffic service and the controller – in this case initially a Traffic Service downgraded to a Basic Service just before a frequency change. On this occasion, it appears to have been a mistake during the controller handover that led to the confusion. The new controller was probably quite understandably frustrated by the apparent situation and keen to quickly resolve a problem in a busy piece of airspace. However, the use of accusatory or other language with similar connotations will likely only ever exacerbate problems, especially if a low airtime or less confident pilot is involved. Remaining calm, addressing the most immediate problem, ensuring everyone is safe and then trying to understand the causes in slower time (possibly even on the ground afterwards) is a good approach. It never costs anything to be polite. We can all safely assume that no one in aviation ever sets out to deliberately do something wrong, and indeed may not have even done anything wrong, so giving the benefit of the doubt and resolving immediate issues with a helpful open mind can make a big difference. Moreover, a positive, supportive attitude by all parties will not only benefit the current situation, but will also affect people's subsequent actions, for example in this case, a willingness to request a TS in future when weather deteriorates and safety margins are eroded. The pilot who submitted this report is very experienced (6,000hr CPL), made some really sensible airborne decisions and coped well with some difficult radio calls, maintaining the situational awareness (SA) to understand and explain the issue whilst continuing to aviate. This is a great share and a salutary reminder to all of us not to be the weak link in the safety chain and to reflect if our R/T is always professional and constructive, no matter who we are and how frustrated we feel.

Key Issues relating to this report

Dirty Dozen Human Factors

The following 'Dirty Dozen' Human Factors elements were a key part of the CHIRP discussions about this report and are intended to provide food for thought when considering aspects that might be pertinent in similar circumstances.

Awareness – Importance of reliable and timely ATC shift handovers.
Communication – Professional use of standard R/T at all times.
Assertiveness – Willingness to ask for change of frequency to improve SA of nearby airfield circuit traffic.

Report No2 - ATC853 – Provision of services outside controlled airspace

Initial Report

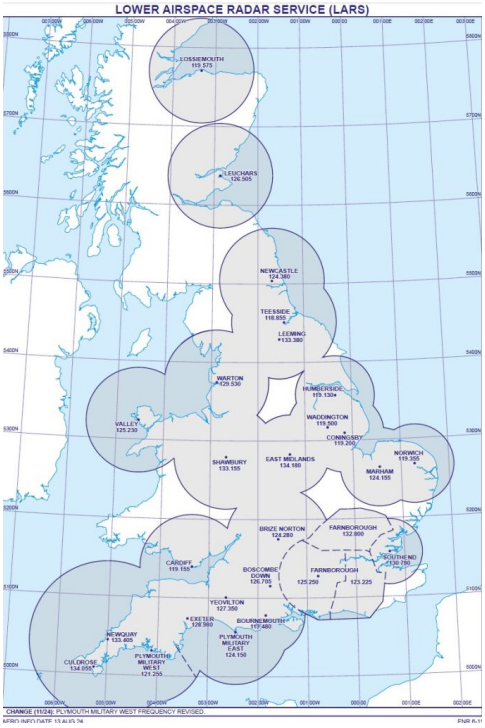
On a busy Monday morning after a major public outdoor event resulting in busy helicopter movements to and from London, the Heathrow/Thames controller repeatedly admonished callsigns requesting 'Traffic Service' in accordance with ATSOCAS* norms. The claim was made that "We are not part of the LARS system so I will only provide you Basic Service".

It is during these busy periods where the majority of the onshore helicopter industry are operating in and out of controlled airspace frequently, and in the vicinity of it without wishing to enter, that we are faced with high density traffic and elevated risk of mid-air collision. This is the exact time we need Traffic Service, not when it is quiet. There is clearly a culture across ATS units with radar to a) refuse to provide Traffic Service, b) refuse to provide any service (Bristol, Cardiff, Solent) or c) when claimed too busy immediately downgrade some in receipt of Traffic Service to Basic. The airspace immediately in the vicinity of Controlled Airspace is often the highest risk for mid-air collision especially if not using the same frequency due to lack of service.

Also there are increased instances of controllers of Controlled Airspace instructing callsigns to 'change enroute' or 'QSY enroute' immediately upon exiting a Class D area. This reduces the safety margin greatly with no knowledge of what is awaiting in the uncontrolled area outside and often no other ATS unit to transfer to in order to get service, let alone Traffic Service. 'London Information' cannot provide this. Again in this instance often controllers ignore requests by crew to remain on their frequency effectively trying to force them away. Solent and Bristol are particularly regular offenders. The ATSOCAS* system is as a result often ineffective, and the majority of units driving this are contributing to the risk of collision. Per CAP774 all ATS have a duty of care to crew, passengers and all those airborne in their vicinity. This appears to be ignored and must end. If crew aspire to only get Basic Service then perhaps the 'Listening Squawk' should be promoted more, allowing ATS units to improve the necessary standard. Ultimately we are at ever increasing risk and this culture will result in more fatal collisions in UK airspace.
*__CHIRP Note:__ Air Traffic Services Outside Controlled Airspace (ATSOCAS) has now changed to UK Flight Information Service (FIS).

CHIRP Comment

The CAA is largely funded by charges on the commercial airlines (along with receipts from services such as licencing) and the UK airline industry, in general, is not in favour of cross funding the GA community from charges on the air transport industry. Although there are ATCUs funded to provide LARS, not all of them are (eAIS Part 2 ENR6-11 gives a map of LARS units and their theoretical coverage).



Map of LARS units and their theoretical coverage

Those ATCUs that can give a LARS service will only do so when there is sufficient capacity, and ATS units are increasingly focusing on core radar activities within their airspace rather than the provision of LARS. This is because many ATCUs are short on manning and industry wide are struggling to recruit trainees. These issues are recognised by the CAA, which is in the process of defining and designing what FIS will look like (and how it will be funded) within the scope of the overall UK airspace review. But that doesn't help in the immediate practicalities of day-to-day operations that the reporter is concerned about. All users of Class-G airspace are encouraged to make full use of in-cockpit conspicuity technology available, such as ADSB-OUT, to assist in situational awareness of other airspace users when operating without a radar-based ATS, such as a Traffic Service from a LARS unit. Please also note, for information, the description of airfield services reproduced in Report ATC859.

Key Issues relating to this report

Dirty Dozen Human Factors

The following 'Dirty Dozen' Human Factors elements were a key part of the CHIRP discussions about this report and are intended to provide food for thought when considering aspects that might be pertinent in similar circumstances.

Resources – Insufficient resources to enable safe conduct of air operations.
Communication – Information flow between participants degraded.

Report No3 - GA1378 – Gliding Competition NOTAM Handling

Initial Report

I was assisting with the running of a gliding competition based at [Location] as airspace officer. I am required to submit a NOTAM request to the CAA's Airspace Regulation Utilisation Operations (AROps) team so that a NOTAM can be issued detailing the competition task routing for the day. On [a Friday], I submitted a NOTAM request by email at 0820UTC which was then automatically acknowledged at 0822UTC. Nothing further happened and, since a NOTAM was not forthcoming, at 1345UTC I attempted to contact AROps by phone, unsuccessfully, despite leaving the phone ringing out for 15 minutes.

[During weekend operations] when I wish to submit a NOTAM request I am permitted to go direct to the NOTAM office and a NOTAM is published within 10 mins of a request being made. The NOTAM request concerned the transit of 60 gliders through a congested area of Class G airspace bounded by Brize Norton CTA, Solent CTA and London TMA. Submitting a request for the NOTAM significantly increases the ability of other airspace users to plan their flights to deconflict with the competition aircraft. I consider the poor performance of AROps significantly degraded safety.

CAA's AROps Summarised Response

Submissions made on the day cannot be guaranteed. Whilst it is appreciated that the exact route may not be known until the morning of the activity owing to weather conditions etc, a NOTAM submission on the day is subject to AROps capacity and higher priority taskings. Given the time elapsed, AROps cannot comment with certainty why a NOTAM request was unable to be processed on the day in question. For the future, a suggestion would be that rather than issue a 'specific route NOTAM' on the day detailing the days glider activity, it may be that a 'generic area NOTAM' is requested using a Lat/Long location and radius and this could be submitted no later than 2 working days in advance.

Reporter's Further Response

After reading the response from AROps, I still feel that the main issue remains; that is, the current NOTAM notification system, whereby AROps are to be contacted during its published hours for NOTAM issuance, and not the NOTAM office directly, is not reliable enough for on-the-day requests after the actual routing for the day is determined.

CHIRP Comment

CHIRP is certainly sympathetic to the reporter's frustrations. Especially since the reporter is working hard to promote safer

collective airspace use. However, notwithstanding the reporter's views, AROps does recommend use of a 'generic area NOTAM', requested no later than 2 working days in advance, to cover the planned event. Thus, in the cases when a NOTAM applied for on the day cannot be processed by AROps due to workload, other airspace users are still made aware of the event itself. Whilst this may not be ideal, especially for events such as gliding competitions, ultimately, we must do our best to work within the constraints of the system currently in place to ensure that the safest possible protection is afforded to airspace users.

Key Issues relating to this report

Dirty Dozen Human Factors

The following 'Dirty Dozen' Human Factors elements were a key part of the CHIRP discussions about this report and are intended to provide food for thought when considering aspects that might be pertinent in similar circumstances.

Awareness – Provision of timely and accurate information to airspace users via NOTAM.
Communication – Despite best efforts, unable to communicate safety information effectively.

Report No4 - GA1380 – Aircraft take-off whilst another is short final

Initial Report

Three aircraft were in the circuit at [Location]. I was holding because an aircraft had declared final (and was on short final); another aircraft was turning base.

An aircraft that was behind me, and also waiting to depart, asked me on the radio whether I was going to go. I told them no, as another aircraft had declared final. It would have been unsafe for me to do so. The aircraft then applied power and turned around us, overtaking us and going onto the runway. The radio station asked the aircraft why he was on the runway, when another aircraft had declared final. The aircraft just responded with "rolling".

CHIRP Comment

The airfield concerned is a CAA licenced aerodrome with A/G radio only. This means that all airfield users need to be extra vigilant when taxying, entering, departing and crossing runways as well as during take-off and landing. This report highlights what can happen in an uncontrolled environment that does not have the added 'eyes and ears' of ATC contributing to the overall safety of ground and air operations.

Leap frogging in front of an aircraft at the holding point, as described in this report, in order to expedite one's own take-off, is not only inconsiderate but carries a great deal of risk e.g. such an unexpected manoeuvre could have caused an over-reaction from the aircraft in front at the holding point. Moreover, this unusual manoeuvre indicates an element of impatience, even rushing, on the part of the pilot in command of the overtaking aircraft, which is often a precursor to poor decision making as well as other human performance influencing factors. Finally, the overtaking pilot could not rely 100% on their aircraft to take-off normally. We all know to be prepared for an engine failure or partial engine issue on departure; had this occurred it would have seriously compromised the aircraft on short finals.

CHIRP acknowledges that there are often pressures to get airborne at a particular time, for flight planning reasons, or to maximise time available for instructional flights, or reduce the amount of fuel used in holding. However, even these pressures must not contribute to poor decision making since this will likely result in an unsafe situation developing, as appeared to be the case here.

Key Issues relating to this report

Dirty Dozen Human Factors

The following 'Dirty Dozen' Human Factors elements were a key part of the CHIRP discussions about this report and are intended to provide food for thought when considering aspects that might be pertinent in similar circumstances.

Pressure – Leading to rushing and poor decision making.
Knowledge – Reliable and accurate information on landing aircraft.
Communication – A/G radio at the airfield not ATC.
Teamwork – Inconsiderate actions potentially endangering others

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Report No5 - ATC859 – Misinterpreted Information from ATC

Initial Report

On departure I had been asked to choose a turn on departure. Not having any preference, I declared "Right but no preference". On lining up on the runway my clearance to take off was given alongside information that the preceding aircraft had turned left. I heard this as an instruction to turn left on departure and therefore did, which was against ATC expectation.

CHIRP Comment

An open, honest and useful report where there was perhaps some expectation bias as well as a classic case of a misheard/

misinterpreted instruction. We have checks and balances in place in aviation to try and mitigate these errors; a readback of ATC instructions for example before enacting them, particularly if there is a change in what is expected or previously instructed. ATC readback is a good habit to adopt, even if it's not an actual requirement at that airfield.

Although it's not specifically pertinent to what happened to this reporter, we felt that it might be useful and timely to provide a reminder about the different levels of service that can be found at airfields. CHIRP often receives information about incidents where pilots mistakenly interpret advisory calls as instructions or vice versa so we take every opportunity to refresh the different services provided by ATCO, AFIS and A/G – the following is courtesy of CAA Safety Sense Leaflet 22 – Radiotelephony (https://www.caa.co.uk/our-work/publications/documents/content/safety-sense-leaflet-22/).

Air Traffic Control Service

An Air Traffic Control Service (ATCS) can only be provided by Air Traffic Control Officers (ATCO).

ATCO may issue clearances and instructions to aircraft on the ground and in the air, within the applicable area of operation. Within the aerodrome air traffic zone (ATZ) or controlled airspace (CAS), compliance with ATC instructions is mandatory. ATC services at an aerodrome will often be split between an approach control service (callsign 'Approach' or 'Radar') and an Aerodrome Control Service (callsign 'Tower'). Where both services are in operation, an approach controller will be your first point of contact, and they will pass you over to 'Tower' as you get closer to the aerodrome. Larger aerodromes may also have a ground control frequency (callsign 'Ground').

Aerodrome Flight Information Service

An Aerodrome Flight Information Service (AFIS) can be identified by the callsign suffix 'Information'.

AFIS provides information to pilots for the conduct of their flight at an aerodrome and within the associated ATZ. In the UK, an AFIS is permitted to issue mandatory instructions to aircraft on the ground up until the aircraft passes a runway holding point. Note this is a UK difference from ICAO, in most states AFIS does not issue instructions at all. AFIS units do not issue instructions to aircraft in the air, however they may request position reports that are consistent with the aerodrome's published traffic procedures. An AFIS unit will usually pass information about known traffic in the vicinity of the aerodrome, although this should be treated as advisory only.

Air/Ground Communication Service

AGCS stations can be identified by the callsign suffix 'Radio'.

Air/Ground Communication Service (AGCS) is the most basic form of aeronautical ground station you will encounter at an aerodrome. Provision of AGCS does not have formal status as an air traffic service. The operator of an AGCS may provide traffic and weather information to pilots operating on and in the vicinity of the aerodrome. Traffic information is normally based on reports from other pilots. It is not a requirement for an AGCS operator to have a continuous view of the ATZ environment or movement area, so such information may not be complete or accurate. The radio operator has no power to issue clearances or instruct aircraft either in the air or on the ground. While information provided by the radio operator may be used to assist a pilot in making a decision, the safe conduct of the flight remains the pilot's responsibility. When operating in the AGCS environment, the basic principle is that aircraft announce their position and separate themselves from other aircraft in accordance with the Rules of the Air and any published aerodrome procedures. Only carry out a manoeuvre (such as taxiing, take-off or landing) if you are satisfied that it is safe to do so and that it will not bring you into conflict with other traffic.

Unattended Aerodrome SAFETYCOM

Unattended Aerodrome SAFETYCOM is a common traffic advisory frequency for use at aerodromes that do not have an assigned frequency. It is currently 135.480 MHz and may be used within 10 NM and up to 1000 ft above the height of the traffic circuit at an aerodrome. Aircraft should announce their position and intentions at the normal points using the callsign "Traffic" after stating the name of the aerodrome they are operating at. Repeating the name of the aerodrome at the end of the transmission further mitigates the risk of confusion when aerodromes are in proximity to each other. Some UK aerodromes allow aircraft movements to take place outside the hours during which an air traffic service or AGCS is normally provided. In this case pilots should commence transmissions with "[aerodrome name] Traffic" on the allocated frequency for that aerodrome.

Key Issues relating to this report

Dirty Dozen Human Factors

The following 'Dirty Dozen' Human Factors element was a key part of the CHIRP discussions about this report and is intended to provide food for thought when considering aspects that might be pertinent in similar circumstances.

Communication – Importance of unambiguous and concise communication between ATC and aircraft

Report No6 - GA1377 – Tall trees on approach at Popham

Initial Report

There are some extremely tall trees in the vicinity of Popham that force aircraft to make unusual approaches. Pilots have to pass through the gaps in these trees to make an approach to runway 03, which is extremely dangerous and looks like an accident waiting to happen.

Airfield comment

It will not surprise you perhaps to learn that the trees on the approach to Runway 03 have been sighted as an obstruction many times. In fact, the trees are the property of Blackwood Forest and the estate was cultivated some years ago leaving the four or five trees standing. We don't hold any correspondence relating to how these were managed but there is a general understanding here that they are in fact a safety feature left in place for the benefit of third parties travelling along the A303 both East and West. Without these trees, pilots approaching at less than a 5º approach angle would likely pass over the A303 'extremely low', even low enough to impact high-sided vehicles or at the very least cause major distractions to motorists travelling at 70mph.

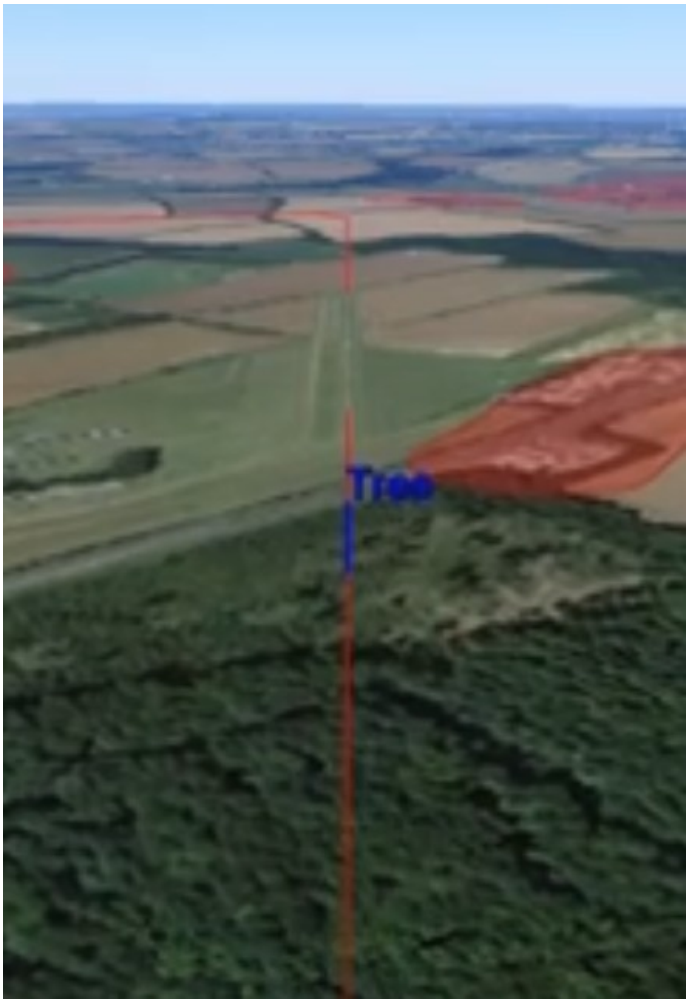
A further factor affecting the approach to runway 03 is the 3º down slope, which causes pilots to perceive a short runway on finals encouraging a low approach and early touchdown, despite there being 900 metres available. The displaced threshold is 200metres from the Airfield boundary from the A303 and 350 metres from the trees, providing pilots with options for a controlled approach. Under no circumstances would we recommend that pilots pass through the gaps in the trees on the approach to runway 03; it would never be safe or necessary to do this.

Like many unlicenced airfields in the UK, approaches to Popham runways 03, 08 and 26 have unusual approaches, (ie not straight in on finals). Popham had 18,700 movements last year, our flying schools (x3) fly all runways and accommodate these non-standard approaches without issue. It is very common that visitors to Popham for the first time fail to read the information published in flight guides, make incorrect approaches and apologise afterwards. Pilot experience also plays an important part in perceptions of risk. Our Website 'Pilot Information' (https://www.popham-airfield.co.uk/airfield-information-2024) can be downloaded about all runways and more recently you can fly the circuit on videos created especially for first time visitors here:

https://www.youtube.com/playlist?list=PLjiDBVbHjF6h0FNHis5ZXDtQerNtZcvPf

We would argue that good preparation for coming to Popham would allay any concerns about the approach to runway 03 in a suitable aircraft with a well-informed experienced pilot. The commander of an aircraft is responsible for the safety of that aircraft. Flying conditions can render approach and landing challenging for some and if that is the case a diversion is always the best decision. We hope this resume is helpful? The trees are likely to remain for reasons that we hope are clear.

This image is a screenshot from the Popham RW03 video showing tree.



CHIRP Comment

This is a really interesting example of differing perspectives and how it is only by someone asking questions that the bigger picture emerges. Hence why reporting and adopting a questioning culture is so important. It's very possible that this reporter wasn't the only pilot operating into Popham who had concerns about the trees on this approach. Equally, the airfield probably felt that they had gone to very reasonable lengths to provide all necessary safety details for pilots and assumed that the details of and rationale for their unusual approaches were well known and understood. The raising of this report to CHIRP has left everyone better informed and allowed us the opportunity to promote the key messages and safety resources for Popham. A great example of just culture in action.

Considering more broadly, how aware are you of these sort of details for the airfields you fly into? Also, at your own airfield, do

you keep track of trees and other obstacles on approach and departure? The trouble with trees and other vegetation is that they grow! Therefore, whilst trees that presented minimal hazard a few years ago may gradually become more problematic. Relatively small, incremental change is unlikely to be obvious to those who operate and fly regularly from an airfield. This can lead to complacency, with an assumption that it's always been ok before so must still be now. Where there is capacity, adopt a questioning culture, don't just assume that something is safe, but instead question and test the status quo. Just as this reporter has done.

For any approach path with obstacles to negotiate, it's important to be careful about approach angle; equally, technique on final approach is critical. Pilots should always be prepared to go-around if they are not happy with the approach. It's invariably better to reassess and have another go, rather than 'cut it fine'. Pilots could also consider a steeper than normal approach at airfields where there are obstacles on the extended centreline. Recognising that non-licensed airfields do not have to comply with any specific requirements in respect to obstacles on the approach, pilots should also check all available information before visiting an airfield (such as Pooley's, airfield websites or equivalent) so that they are aware of any likely warnings or issues and could modify their approach technique and approach angle if required. A simple 1:60 or similar calculation if unsure might be worthwhile when considering obstacles at airfields.

Key Issues relating to this report

Dirty Dozen Human Factors

The following 'Dirty Dozen' Human Factors elements were a key part of the CHIRP discussions about this report and are intended to provide food for thought when considering aspects that might be pertinent in similar circumstances.

Knowledge – acquiring a full set of information before operating from an airfield.
Communication – assuming that because information is available, it's been read/watched and understood.
Complacency – assumption that because it's been safe before it must still be now.
Deviation – adapting procedures against inaccurate assumptions.

Report No7 - GA1382 – Distracted whilst intercepting glideslope

Initial Report

Upon approach to landing at London Luton EGGW we were being vectored by Luton Director for ILS runway 25. Initially we were cleared 3000' then given a heading to intercept and cleared approach. We, as have been trained, armed approach mode, armed VNAV and set minimums in our altitude preselect. Around the same time as we intercepted, the captain asked for flaps 3 and gear down. At this point I was monitoring the gear and my attention was away from monitoring flight instruments. Shortly later the captain said "why isn't it stopping?" meaning why didn't we capture the VALT of 3000'. We inadvertently went low by 600-700'. Shortly after ATC contacted us and informed us we had departed controlled airspace low; we were instructed "cleared to re-enter controlled airspace in half a mile" at glide slope intercept. We complied and the rest of the approach was normal.

CHIRP Comment

CHIRP highly commends the reporter for this candid report, which was also communicated to the reporter's line manager. Could we all honestly say that we would have done the same? After all, they got away with it and no harm done. But, by altruistically sharing the experience, there's an opportunity for everyone to learn and consider the human factor implications of this 'near miss'.

It serves to remind us all how a combination of tasks and cockpit activities carried out in close succession can quickly lead to distraction and loss of focus of attention away from the flight instruments at a critical point. The reporter self-identified the key lesson as being communication and teamwork in the cockpit. The decision to configure the aircraft just when VNAV capture was expected meant that the crew became distracted from monitoring the flightpath. Avoiding selection of services at critical points for an approach is advisable to prevent such occurrences, albeit that's sometimes easier said than done, as there may have been a valid reason that caused the flaps and gear to have been selected at that point.

Don't forget that as well as enabling the experience to be shared through this FEEDBACK, all reports to CHIRP also contribute towards our disidentified safety database and our efforts to analyse and understand the bigger safety picture.

Key Issues relating to this report

Dirty Dozen Human Factors

The following 'Dirty Dozen' Human Factors elements were a key part of the CHIRP discussions about this report and are intended to provide food for thought when considering aspects that might be pertinent in similar circumstances.

Communication – Effective information flow and communication between crew members not achieved.
Teamwork – Breakdown in task prioritisation.