AVIATION FEEDBACK

CHIRP

An independent and confidential reporting system for the Aviation industry

GENERAL AVIATION

Edition GAFB 108
June 2026

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Parachutes, planes and passengers

Contents

William Dean
Air Transport Programme Manager

Welcome Rich Harrison

Welcome to this latest edition of FEEDBACK for the General Aviation community which features a variety of articles involving planes, parachute jumping (skydiving to be more precise) and familiarisation flying with passengers. Since the last edition of FEEDBACK was published CHIRP has a new Director Aviation in the form of Rich Harrison, who joined the team in April 2026. Rich's biography is provided below for FEEDBACK readers to learn more about his aviation background and it can also be found on the CHIRP website alongside other team members – Team – CHIRP.

Rich has joined CHIRP as Director Aviation fresh from a full aviation career as a pilot in the Royal Navy's Fleet Air Arm. Rich joined the Royal Navy in

1994 and over his military career has flown the T67M Firefly, Gazelle HT2 and Sea King Mk4 aircraft. He has also spent time off-duty gliding with the Royal Navy Gliding Club achieving solo standard. As a Sea King pilot he deployed to numerous operational theatres on land and at sea, accumulating 2500 flying hours and undertaking warfare-related instructional duties.

In the later stages of his naval career Rich specialised in aviation safety and led the management and oversight of the Air Safety Management System for the Fleet Air Arm (2020-2022) and then undertook a similar role for the Joint Aviation Command, Defence's HQ for UK Battlefield helicopters and drones, between 2022-2026. In this last position Rich and his safety team interacted routinely with the UK FSC, UKAB and CAA on various safety matters. He also managed military aviation safety reporting systems (both open and confidential reporting) and Human Factors safety training for Army, RAF and Navy personnel.

Rich is excited to have the opportunity to continue specialising in Aviation Safety and Human Factors, delivering CHIRP's commitment in enabling any person involved in professional or recreational aviation activity to confidentially report safety concerns.

During the last six months as interim GAPM I have learned a lot about reporting culture and attitudes to safety across various sections of the GA community and was pleased to meet many of you along the way. I am delighted that Mike O'Donoghue CBE FRAeS joins CHIRP from GASCo to take over as GA Programme Manager, which allows me to return to my roles as CHIRP Air Transport and Advanced Air Mobility Programme Manager.

William (Bill) Dean,
Interim GA Programme Manager

Share with CHIRP

Have you had an incident or a near miss? Could CHIRP help or offer advice on a safety concern? Perhaps you've experienced or observed something with a human factors angle that you think the wider aviation community could learn from. Why not share it with CHIRP? Confidentiality, whereby only CHIRP and the reporter are aware of names and employer / organisations involved, promotes trust in the reporting and sharing of experiences. Every report helps raise awareness of safety issues, highlights emerging trends and shares valuable lessons with others.

"You report it, we help sort it."

Reporting to CHIRP is simple and quick using either our website portal or the CHIRP App (scan the relevant QR code or search for 'CHIRP Aviation' but watch out for the birdsong apps!). The portal presents a series of fields for you to complete, but not every field is mandatory – just tell us as much as you can. The more detail you provide, the more effectively we can help.

Although you'll be asked for an email address to access the system (to screen out bots and spam), your personal information is held securely within CHIRP's independent systems and is never shared outside the organisation. Importantly, nothing that could identify a reporter is included in any report we progress or publish. We liaise with you at every stage and no information is passed on without your express consent.

So rather than 'fly and forget', please consider working with CHIRP to help make the skies safer for everyone. However, it's important to note that reporting to CHIRP is not a substitute for submitting a Mandatory Occurrence Report (MOR) when required, for example, when there has been a significant risk to safety, or an event that could have endangered the aircraft, its occupants, or others. MORs should be submitted via the CAA's ECCAIRS 2 portal.

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Get 5% discount at Pooleys Flight Equipment through CHIRP

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

Feedback on GA FEEDBACK Edition 107

We have recently received correspondence from readers of a previous edition of GA FEEDBACK responding to a banner we included in Edition 107 for the MET Office MAVIS App. As a reminder, MAVIS (Met Office Aeronautical Visualisation Service) is a new, integrated and cloud-based aviation weather platform launched in March 2026 to replace legacy systems with a single interface. It provides "comprehensive, real-time meteorological data—such as METARs, TAFs, and interactive, customizable map layers—tailored for users ranging from general aviation pilots to major airlines and spaceport operators".

One reader's feedback to CHIRP about MAVIS made the following points (summarised by CHIRP):

– An overarching concern that MAVIS is unusable.
– Very poor information portrayed by the new graphics.
– Wording too small to be read.
– Screens are unstable.
– Difficulty in moving to the next screen and having to shut down and re-open from scratch.
– Some of the old screens (e.g. satellite images, cloud fog & precipitation) are no longer available.
– Why is 'sea state' needed?
– Difficulty in navigating the system in a timely manner, particularly while flying.
– Cloud cover, temperature and wind charts no longer give useable information.
– Scrolling the timeline is very awkward.
– Reading METARs and TAFs is not intuitive or user friendly.
– The new system isn't complete and by no means useable! I now have to use other weather platforms – the old system was great, what was the need for change and such massive sub-quality information?

CHIRP passed on this reader's feedback to the MET OFFICE, and we received the following reply:

"Thank you for taking the time to review the new MAVIS system. Your comments have been noted and shared with the Met Office's MAVIS product team.

The technical infrastructure that the previous Aviation Briefing Service (ABS) platform was managed on, was at end of life. The platform carried several security and performance issues that meant that it was no longer effective, safe or efficient to keep running for a meteorological service that must have a high-level of availability for regulatory aviation safety reasons. The Met Office, in accordance with its obligations to the Civil Aviation Authority are responsible for providing a reliable, safe and effective pre-flight weather briefing service for all aviation users, and MAVIS has been developed to meet these requirements across all UK aviation users.

Your feedback appears to centre on the following 2 themes, which are explored more thoroughly below:

1. Usability

2. Content

1. **Usability**

Your feedback highlights a concern about the presentation of the information on MAVIS, and in particular the small wording and cluttered feel. The Met Office has received a variety of feedback around the text size of reports and aerodromes names on MAVIS, and we appreciate this can be challenging. Currently, the text size can be altered via your browser's system settings by changing the zoom view (control + mouse wheel and scroll 'up', or in the browser settings zoom can be enabled). Alternatively on a phone/tablet use the text size function to manually alter the text size. We can advise that future updates to MAVIS are being planned for release, delivering a range of additional features. Whilst we cannot put a definitive timeframe on each future release, we can advise that one of these is planned to include the ability within MAVIS to control text or

icon size. In terms of navigation, it should not be necessary to close down and re-open MAVIS on account of it being cluttered. For example, you may wish to be aware that you can close briefing products such as the F215 by clicking in the 'cross' in the top left hand corner.

We note your comment concerning the readability of TAFs and METARs. Based on previous feedback on the aerodrome list and TAFs and METARs display, we can advise that this part of the menu panel has recently been made wider (you can now expand it to half the screen in a browser). The TAF and METAR text now wrap around within that panel.

Your correspondence refers to scrolling through a timeline as being awkward to use. During the development of MAVIS one recurring theme from ABS users was that there were not enough timesteps in the weather map layers to provide a meaningful trend of the weather over a period of time. For example, timesteps that updated every 3 or 6 hours were considered too coarse. With MAVIS, the Met Office has been able to utilise more data and therefore incorporate additional timesteps which are intended to address this user feedback. These additional timesteps have broadly been welcomed by users, but we do appreciate this has resulted in more scrolling. We will continue to review the timesteps available for each layer to ensure we are striking the right balance between having more information available and maintaining a good user experience. To assist with navigation, do look for the >> symbol on the timeline. This takes you 24 hours ahead, to help you quickly navigate forward in time to the day of interest. Please feel free to let us know if you have any other challenges with this feature.

Your feedback highlights the number of clicks needed to navigate around MAVIS. There has been feedback from a range of users about the number of clicks it can take to navigate to specific forecast products. The Met Office is driven to ensure that MAVIS is as easy to navigate as possible. You will appreciate that changing functionality in a service needs to be carefully considered to ensure that the widest number of users have a positive experience of the change. You may already be aware of the feature that allows users to 'pin' favourite weather layers and products, so that the content you use most often remains easily accessible at the top of the maps and reports panels.

2. **Content**

The Map layers that have been included in the initial release of MAVIS have focussed on the requirements mandated by the CAA. As a result of similar feedback received by the Met Office regarding 'combined' map layers (i.e. "cloud fog and precipitation") we are exploring ways to include this information in a way that maintains a clear view of the forecast weather conditions and upholds accessibility guidelines, whilst not presenting a cluttered map view.

Your feedback also highlights that the cloud cover, temperature and wind layers may no longer provide usable information. These products are a like for like replacement to what was available on ABS, and it would be useful to understand more about this concern.

To address your comment on "why do we need "sea-state'?", it should be recognised that MAVIS is required to satisfy a wide range of UK airspace users. This means that some features or map layers must be available even if it is not explicitly something used by yourself. For example, the sea state map layer is very necessary information for offshore and Search & Rescue. As we continue to add more functionalities into MAVIS, we will be considering ways to allow individual users to further customise the service to meet their specific requirements. As mentioned earlier, to aid speed of navigation, it is possible to pin your preferred map layers, reports and sites, so that these take primary position in the menu when planning your flights.

We appreciate that you have already been using MAVIS, and can bring to your attention the following resources that may be of use especially as the Met Office are keeping this up to date as new features are added:

- The User Guide: https://docs.mavis.metoffice.gov.uk
- A recording of key features https://www.metoffice.gov.uk/services/transport/aviation/regulated/mavis/resources (second video)

I should like to reassure that MAVIS has been tested extensively with a variety of users and this engagement continues today. We really welcome your feedback, as this helps ensure that future developments to MAVIS will be influenced by such feedback. We do review feedback that comes from users via our feedback form as this influences our prioritisation process. Please do not hesitate to share any new feedback you have via MAVIS User Feedback link provided.

Kind regards
The Met Office MAVIS Team"

"Stop pushing! - I have control"

As this edition of GAFB is my last as interim CHIRP GA Programme Manager, I thought I'd use the opportunity to share an experience of my own when flying with a paying passenger in a tandem seat historic fighter aircraft.

The opportunity to experience what it's like to fly in a WWII fighter has always been a popular aspiration for many and in response to increasing demand the CAA introduced the Safety Standards Acknowledgement and Consent (SSAC) framework in 2014, following proposals captured in CAA publication "Let There be Flight." As a result, Harvard, Mustang, and Spitfire flights, in particular, have become increasingly available allowing qualified pilots, as well as the general public, to experience these iconic historic aircraft whilst airborne. A truly wonderful, and unforgettable experience.

On this occasion, I was the pilot of a two-seat Spitfire operated by a company operating SSAC flights. SSAC pilots often fly multiple trips a day and my passenger during the flight in question was my third of the day. The first two had been qualified pilots, one ex-airline, the other experienced GA pilot, and therefore as much as possible of their individual 20-minute trips had been flown by them, such as during straight and level manoeuvring, in order to give them a feel for the aircraft in flight. The third trip was different, this time with an elderly passenger who was not a qualified pilot, and their motivation to fly in a Spitfire was based, I was told, on a family member having flown Spitfires during WWII.

This third sortie was planned in the same general airspace, due to favourable weather conditions, and the take off and departure, including the all-important timings, went like clockwork. I had briefed the passenger that at some point during the sortie, when straight and level, I would allow them to take hold of the control column, with me still at the controls, and feel the sensations of flying a Spitfire in flight, and as previously mentioned, something I had done many times before and without incident. As one would expect, before this happens the passenger is briefed thoroughly about the need to place only their right hand on the control column and to use very small movements. They are specifically briefed not to touch the throttle or the rudder pedals. This briefing is particularly important because, without stating the obvious, the Spitfire two-seater is a tandem aircraft, as opposed to a side-by-side configuration, and as such, the front seat instructor pilot is unable to see what the passenger is doing in the rear cockpit at any point after strapping in. Read on.....

When it came for the passenger to hold lightly on to the control column in level flight, I made sure I was in uncrowded airspace, and weather conditions permitted a good lookout. This is when the unexpected happened and I was jolted out of the relaxed and comfortable state I was in. Almost immediately after instructing the passenger to place their right hand gently on the control column, as we had briefed only minutes before, I felt it move forwards rapidly with a sudden push, and even though I had my hand firmly in place on the control column too, I could not prevent us from being bunted violently forward towards to ground!

I instinctively and instantaneously pulled back on the control column and shouted – **"Stop pushing! – I have control".** Having regained my composure after the inevitable 'startle' effect, we returned to the airfield in a much more leisurely manner, and I was pleased to put the aircraft safely back on the ground when the 20 minutes was up.

What did I learn that day from the experience and in particular about human factors? Firstly, in a tandem aircraft, when flying with passengers who do not have previous piloting experience, you can only control so much, no matter how much the person is briefed. When dual controls are fitted, throttle, rpm, undercarriage, fuel levers can all be moved without any warning, so be ready and always expect the unexpected. Maybe I was in too relaxed a state of mind having previously flown highly enjoyable trips with fellow pilots earlier that day. Secondly, due to the fact that SSAC trips invariably occur in fighter aircraft, the rate of change of attitude will be rapid if controls are mishandled, and so a measure of error margin is needed by starting any such manoeuvre at an appropriate safety altitude. And finally, remember that for the general public, aviation activities, such as SSAC, will be an unusual and probably scary experience, and no matter how much they may appear relaxed during the brief and strapping in, they will be nervous. One of the first human performance aspects to deteriorate when we are anxious is our ability to take in and comprehend what is being said to us. Comprehensive briefings are important, and mandated prior to flight but, for non-pilot passengers, have they really heard you and taken everything onboard? This applies especially to the all-important emergency briefings prior to SSAC flights when discussing how to operate the canopy, unstrap from the seat harness, exit the aircraft expeditiously and deploy the parachute, if commanded to do so by the pilot in an extreme emergency. Even though passengers must demonstrate the ability to recall essential emergency actions for abandoning the aircraft prior to flight, we know that what may be remembered in the relative calm of the briefing room is different to what could happen in the air when things don't go to plan. All food for thought.

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 - GA1417 – 'Near collision during complex sky diving serial'

Initial Report

Report text (summarised from original highly technical report):

Parachute Jump type: Complex group "free flying" and "tracking", requiring Tracking Grade 3 (TR3) and Free fly Grade 2 (FF2) qualifications – see CHIRP comment below for explanation of free flying, tracking, and relevant qualifications needed.

Group experience:

The assumption was that all jumpers had the necessary qualification via communication during the brief, and all jumpers expressed happiness with the jump plan. New information was then received on one individual, just as the group was embarking jump aircraft. It transpired this person actually only had limited experience of the jump serial, in smaller groups, and most importantly did not have the necessary qualification (TR3).

Coach's thoughts:

I felt irritation and did not want to change the plan as we had thoroughly briefed the plan and did not want to disappoint the rest of the group who were qualified for this and had practiced well.

Jump description:

During the jump the less qualified individual moved out of slot and did not react efficiently to the transition and couldn't cope with the situation in a safe way and kept following without maintaining visual reference with the leader. All flyers behind me had presumed I had started the move as I had keyed it but due to my attention moving to the non-qualified individual, I paused on the transition which started the cycle of mistakes. As I started a pass-through transition the timing difference between myself and the other flyers caused a high-speed fly past by 2 of them, one passed by within a meter at a speed which would have been fatal if contact had been made.

CHIRP Comment

This was a very serious "near miss". CHIRP congratulates the reporter – the coach concerned – for contacting CHIRP, for identifying some of the causative factors, and for giving an insightful and honest account of their own contribution. The report highlights why regulations around qualifications, and experience levels are in place even for licenced skydivers. Adhering to them would almost certainly have prevented what must have been a frightening experience for some of the group.

FF2 is the higher free fly qualification which entitles jumpers to fall head down vertically in groups with other free flyers.

TR1/2/3 are the qualifications that allow free fallers to fly in groups while also gliding horizontally at speeds of up to 80mph (this is called 'Tracking').

TR3 is the highest of these grades and allows jumpers to participate in the steepest, fastest angles where there is greatest potential for rapid acceleration or deceleration.

Coaches should feel confident in making safety calls, even at the last moment, and should be supported by the skydivers. Better to disappoint by stopping a jump than to disappoint by having a serious or fatal injury. Many multigroup events have an appropriate focus on "Fun" but this should never trump safety.

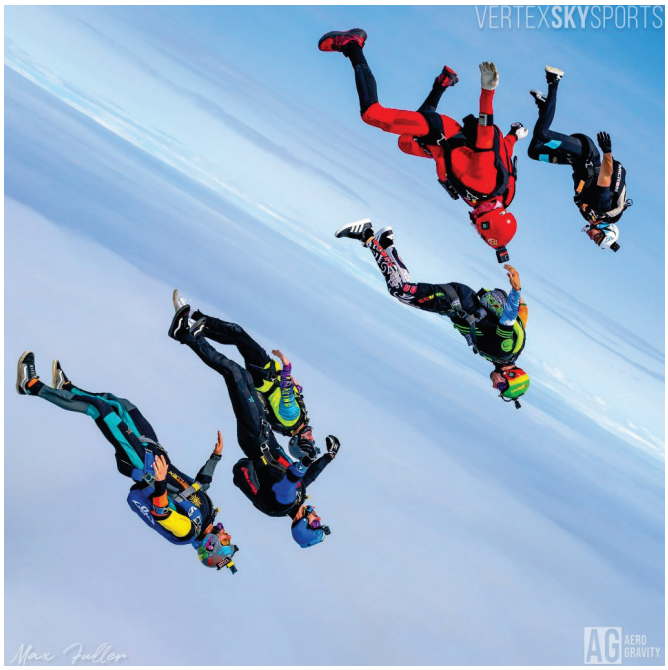
Additional Information for those who are not familiar with sky diving and want to better understand the operating context.

A 'steep tracking dive' involves reversing direction by a pass through the vertical, involves everyone following a single leader, with the belly trackers gradually transitioning through the vertical (head down) to back tracking and the back trackers gradually transitioning through the vertical (head down) to belly tracking. It is one of the more demanding types of tracking jump and requires all jumpers to be able to keep the same station with the leader, regardless of whether the leader's transitions are smooth and progressive, staggered or even paused completely. The pass-through transition from back to belly track is well known for suddenly unlocking a huge amount of lift and acceleration. It is not always easy for less experienced jumpers to control this – a pause by the leader can result in sudden and large separation of some followers, who may then strive to regain proximity at high speed. When the leader then resumes their transition to accelerate on their belly, the closing speed between the returning follower and leader can suddenly become so great that the follower is unable to avoid a high speed fly past or a collision. The leader does not have eyes in the back of their head and so, regardless of the leader starting on their back or their belly, anything other than a smooth transition by the leader and rock steady station keeping by the followers will carry some risk of traffic problems or collisions.

'Pass-throughs' are normally learned initially by one-on-one coaching. This allows a safer environment for learning errors. As the group size increases, situational awareness is essential and even small failures in station keeping can cause complex traffic problems. The British Skydiving Operations manual specifically

limits maximum group size to 4 persons when one of them is training for TR3. Even after TR3 is obtained, the Ops Manual restricts group size for steep tracking groups to 6 persons, unless each person has been cleared for jumping in larger groups by an Advanced Instructor (normally demonstrated by an entry in the skydiver's logbook). It is exceptional to hear a group leader or coach asking jumpers about their group size clearance and one has to question how effectively this well intentioned and sensible regulation is being applied or checked.

The following images illustrate a pass-through manoeuvre:



1. The group is being led by the skydiver in the green/yellow/red helmet. The group is tracking (body gliding) from the viewer's left to right with a horizontal speed of about 50-60mph.

2. The group is in a vertical dive, accelerating to 150-200mph downwards. The leader has also rolled 180 degrees along his longitudinal axis to maintain visual with ground references.

3. The group is now accelerating in the opposite horizontal direction (viewer's right to left) and is having to control the large amount of kinetic energy.

4. The group is flattening its trajectory to increase horizontal movement to about 60mph in the opposite direction to photo 1.

These photos were provided by the author, who was part of the formation and they explained that while the formation keeping was not perfect, it was a safe pass-through. Photos reproduced with kind permission.

Organisation

A group track may develop spontaneously, when the leader is usually responsible for fitting the plan to the people and for ensuring safety. At some pre-planned events, the event administrator may have an expectation that jumpers will go to the groups they are qualified for. A wise leader will recheck this at the start of the dive planning.

Some organised events require detailed written information from jumpers well in advance of the event and then allocate them to specific groups. It is common to require details of FF1/2 and TR1/2/3 but it would be unusual to see application forms asking for details of formal clearance to jump in larger groups.

Having a group size endorsement in a logbook may not always be easy to check, especially if written in a previous logbook or if an electronic logbook is being used. TR and FF qualifications are shown by stickers in the parachutist licence. Would there be benefit in having a "Plus" rating added to stickers, as with FS1 and FS1+ (e.g. FF2+ or TR3+)? This would keep the relevant information in one place and "sticker orientated" skydivers would have a clear target to aim for and a clear indication of what they are allowed to attempt.

A few questions may remain in some readers minds:

Why does someone without TR3 join a group for which FF2 & TR3 is required?

1. Their usual skydiving friends may have been in that group, and they may have felt comfortable with them. It is OK to move down a group to be with friends, but not to move up a group.
2. They may have done some jumps working towards TR3 and so believed they could hack it. In 1999, two psychologists (David Dunning & Justin Kruger) described how people learning a new skill would often overestimate their own ability to complete the task safely. This is known as the Dunning-Kruger effect.
3. Fear Of Missing Out (FOMO) – the top group will be doing the best jumps
4. Knowledge – they may not have been aware of the rules and may not have known that the group criteria were rule based not guidance based.
5. "Because they can". Qualifications and skill levels for licenced skydivers are commonly self-declared and not formally checked.

Why does someone, knowing they don't have the required TR3 and knowing they only have small group experience, wait until just before boarding to confide to the leader alone that they have concerns? (still better then than never).

1. Not wanting to admit they are in wrong group
2. Not wanting to disappoint friends
3. Delaying uncomfortable decisions is a common behaviour pattern in humans. This jumper did eventually discuss his qualification and experience level with the coach and is commended for doing so.
4. Coaches commonly ask, "is there anyone not happy with the plan?" rather than "say if you are fully happy with this plan". In a group, it is always easier to stay quiet than to raise a hand in front of others. We should positively praise jumpers who speak up and express concern.

Why does a coach proceed with a plan to pass through the vertical, when someone reports they have neither the qualification nor the prior experience for this move?

1. With the props turning and fuel burning it is too late to rehearse a new plan and too late to pull off the load without losing the jump tickets. There are other groups also waiting to board the aircraft. Time pressure can easily result in suboptimal choices.
2. Desire not to embarrass the non-TR3 jumper
3. Desire not to disappoint the other jumpers who were looking forward to this high level jump
4. The non-TR3 jumper may have performed satisfactorily on less demanding jumps earlier in the day and created an appearance of competence.

What other options may have been open to the coach in the boarding area?

1. "Hey guys, we have to change the plan for safety reasons. Keep the same exit plan then follow me on a fast curvy cruise, but without a pass-through"
2. "Skydiver X, you will have to do a solo vertical jump on this lift. Everyone else, we have the same dive plan but without Skydiver X".
3. It is easy to think of these "outs" at leisure after the event. A different matter to rapidly come up with one at the pressured

time of boarding. It is good to have a rough Plan B ready for every skydive.

Key Issues relating to this report

Possible Human factors considerations that could contribute to such an event:

- Overconfidence – the Dunning-Kruger effect whereby humans overestimate their abilities when inexperienced. The individual concerned believed they had the skill and ability to make the jump.
- Communication – qualifications and experience not reported or sought until about to board aircraft for jump.
- Knowledge – did the jumpers know the TR3 requirement was a rule, not just guidance?
- Pressure of time/cost – Jump aircraft propellors turning.
- Pressure from peers – desire not to disappoint.
- And finally, F.O.M.O. – maybe not one of the conventional 'Dirty Dozen' Human Factors but not an uncommon skydiver trait, CHIRP has been reliably told!

Report No2 - GA1419 – 'Towbars routinely being left attached to aircraft'

Initial Report

Report text (summarized to protect reporter's confidentiality):

The ground handling function at [aerodrome name] has adopted a policy of leaving towbars attached to aircraft. The risk of engine start with the towbar attached is now considerably higher. There are many AAIB reports into engine starts with towbars attached. It is considered bad practice to leave ground handling equipment attached to the aircraft when not in use. Having spoken with the aerodrome operator, who also provides the ground handling service, which is mandatory, they are unwilling to consider reversing their policy change and have dismissed my safety concerns. Their position is that if the operating crew fail to remove the towbar, then it would be their own fault and not that of the aerodrome operator. There appears no evidence of a safety culture here, or even a basic understanding of human factors.

Company Comment

The Airfield operator has informed CHIRP that at the time of writing no safety reports had been received from airfield users regarding the policy and therefore was curious why the reporter felt they would report to CHIRP first and not the airfield safety team. The airfield operator also said the policy was in place due to some specific operating requirements at the airfield which had been discussed at length to airfield users before the policy was promulgated, therefore although not optimal, it was a considered an operating necessity that is mitigated by discussion and raising awareness of the potential issues.

CHIRP Comment

CHIRP recognized that this airfield policy, as stated by the reporter, increases the risk of a tow bar being left on an aircraft before start, or remaining on the aircraft during, and worst case after take-off. Such a change in policy, with associated hazards, should be managed by the airfield SMS team with agreed mitigations put in place as deemed necessary. Being fully transparent with such a safety process will help to create a reporting culture when those involved want to make their views known to those responsible and accountable.

CHIRP considered that if the policy remains then it should be clearly stated in SOPs, with a robust, consistent procedure in place, including mitigations to minimise opportunities to miss the towbar during walk round such as, for example, placing a noticeable marker/flag on the towbar, or use of dayglo paint on towbar, for better sighting. Ultimately however, and as ever in aviation, it is the PIC's responsibility to ensure the aircraft they are in command of is fit and ready to fly, and if they have to operate in an environment they personally feel is less than ideal, as in the case described by the reporter, then they should set some additional mitigations of their own to best protect themselves from an incident or accident occurring.

It is worth reminding FEEDBACK readers that on 19 Aug 2019 an Embraer 145 landing at London Southend Airport ran over a general aviation towbar which had been dropped on the runway. No damage was caused to the aircraft. The investigation found that the towbar had fallen from a Cessna 210 which departed Southend Airport 30 minutes before. The Cessna pilot had likely been distracted during his pre-flight checks by an earlier road traffic incident in which he was involved and had inadvertently left the towbar attached.

A Safety Recommendation was made to the CAA to improve the visibility of general aviation ground equipment.

The AAIB also highlighted to CHIRP three more recent tow bar occurrences:

On 6 June 2021, the pilot of an American AA-1 flying from a location in North Yorkshire took off with the towbar still attached. The pilot was alerted to this over the radio and returned to land. The tow bar came off on the runway and the propeller suffered slight damage to one propeller blade tip. The pilot reported that prior to the flight he had pulled the aircraft to the fuel pump but parked it further away than normal. This

meant that he didn't need to push the aircraft backwards before starting up. He had also been distracted from his routine by walking away to talk to another pilot before entering the aircraft.

On 28 August 2021 the pilot of a Cessna F172N at Glasgow Airport inadvertently departed with a towbar attached to the aircraft's nosewheel, having been distracted by a passenger during the pre-flight inspection. The operator has informed its members about this incident and has taken action to enhance the handling and conspicuity of its towbars.

Finally on 22 April 2024 the pilot of a Piper PA-28-140 in Perthshire took off with the towbar still attached. The tower informed the pilot on the radio and then recovered the towbar which had detached during the take off. The aircraft landed without incident and subsequent inspection showed a propeller strike. The pilot considered he became distracted during the preparation of the aircraft for take off and stated that he normally placed the towbar on the wing by the door after use. He stated that he planned to add a note on his checklist to remove the towbar to help prevent future recurrence.

Key Issues relating to this report

Possible Human factors considerations that could contribute to such an event:

- Distraction – being distracted can lead to interrupted checks or poorly performed checks
- Fatigue or personal stress can affect human performance resulting in errors and mistakes during routine tasks
- Self-induced and external pressure to get airborne introducing errors from rushing
- Lack of communication & teamwork as well as lack of knowledge e.g. visiting pilot unfamiliar with policy and associated hazards
- Normalisation of deviance from procedures that become acceptable but differ from the norm or what is expected (expectation bias)

Report No3 - GA1421 – 'Near collision with runway lights'

Initial Report

Report text (summarized to protect reporter's confidentiality)

I was on a checkout flight on an unfamiliar aircraft type, conducting circuits with an instructor. On the third take-off I applied insufficient backpressure and the aircraft did not rotate cleanly. This resulted in a drift to the left and the aircraft nearly hit the runway lights. My instructor took the yoke and steered us clear. This was a messy take-off and I accept pilot error – however, its well within the kind of thing which occasionally happens – especially in an unfamiliar aircraft. The presence of these runway lights, which project some [distance] above the surface, are positioned someway inside the hard surface edge and along the length of the runway, which introduces a serious hazard on this runway. They should be replaced with flush mounted lights. I am aware of a number of other incidents with these lights over the last year since their installation.

Company Comment

CHIRP contacted the airfield operations senior manager and discussed the type and positioning of the runway lighting. The Ops manager commented that raised lighting exists down the length of the single main runway inside of the hard surface edge, and the reason why they are raised and inboard of the edge is simply one of cost as an additional £1M would have been needed to fit flush lighting instead of the raised–type currently installed. The airfield website page, used by visiting and locally based pilots, states clearly the lights are elevated and in addition the information is also provided as part of PPR confirmation.

CHIRP Comment

Lighting placed in this way or any other structural changes to a runway width should be highlighted in the UK AIP as the official source document. On investigation using online e–AIS the entry for this particular airfield does not state specifically that the runway edge lighting is elevated – this may impact what is provided to users by aeronautical information providers in electronic flight aid apps. However, following confirmation by the airfield Ops manager, CHIRP is aware that the positioning of the runway lights is well communicated to pilots and is included in pre-flight airfield briefs. This airfield is not alone in having runway and taxy lights placed some way inside the hard surface edge. This is normally done in order to reduce the approved and certified width of the runway and will have appropriate CAA approval to do so.

Key Issues relating to this report

Possible Human factors considerations that could contribute to such an event:

- Knowledge – are airfield users aware of the raised lighting?
- Norms – variability of human performance during flying training on an unfamiliar aircraft type
- Stress/Pressure – when performance is being assessed in an unfamiliar aircraft by an instructor/examiner

A positive human factors aspect of this report is the quick reaction of the instructor in taking control and associated avoiding action for which they should be commended.

Report No4 - GA1425 – 'ATIS Content'

Initial Report

On a clear dry day many airfields transmit runway condition reports on ATIS (e.g. Runway Dry/Dry/Dry, Coverage 100%/100%/100%, Depth not reported/not reported/not reported). This doesn't happen at commercial airfields like LHR/LGW, but at smaller GA/regional airports where single pilot ops are far more likely, it can take several minutes to obtain ATIS whilst trying to fly the aircraft and listen out on the primary ATC frequency.

Runway condition reports are of course vitally important, but surely if the runway is dry, a simple "Runway Dry" would suffice. The current lengthy report provides no helpful information at all to the pilot when weather conditions [are benign] but has the possibility of contributing to a missed RT call, or distraction at a busy phase of flight.

CHIRP Comment

The reporter makes valid points regarding the potential consequences of having to check the latest ATIS and derive the information needed as well as perform other tasks, particularly when airborne. Within the 'Rules of the Air' section of the CAA website there is section SERA 9010 which lists the requirements for the contents on ATIS, and those airfields that provide ATIS are required to comply with this regulation.

A possible mitigation if an aircraft has more than one pilot in the cockpit (and dual radios fitted) is to have one pilot collect the ATIS information whilst the other monitors the ATC frequency. If flying single pilot, an option is to indicate to ATC that you require to listen to an ATIS transmission so that ATC is aware and then let ATC know when you have completed copying ATIS information down and are back on frequency again.

Key Issues relating to this report

Possible Human factors considerations that could contribute to an event:

- Distraction – other transmissions may make hearing ATIS difficult if fitted with more than one radio
- Lack of Communication – possibility of missing important ATC calls when trying to concentrate on ATIS
- Distraction / Pressure – having to focus on one task at the detriment of other flying tasks

Report No5 - GA1423 – 'Airspace infringement'

Initial Report

Report text (summarized to protect reporter's confidentiality)

After some last–minute flight planning, resulting in incorrect ground feature location on an OS map whilst airborne, I had an inadvertent airspace infringement in a Gyroplane. As soon as it was recognised, using SkyDemon, the aircraft was hard turned away to exit the airspace, radio contact initiated by ATC unit, in a businesslike, professional manner. Pilot stated intentions, complied and voluntarily contacted the ATC unit by telephone on landing. A lack of ground feature related airspace boundary design increases the chances of an airspace infringement by visual/VFR pilots-to whom the airspace boundaries are most relevant.

CHIRP Comment

CHIRP commends the reporter for submitting their report. The reporter mentions ''last minute planning'', and in addition that, in the reporter's opinion, ''a lack of ground feature related airspace boundary design increases the chances of an airspace infringement by visual/VFR pilots".

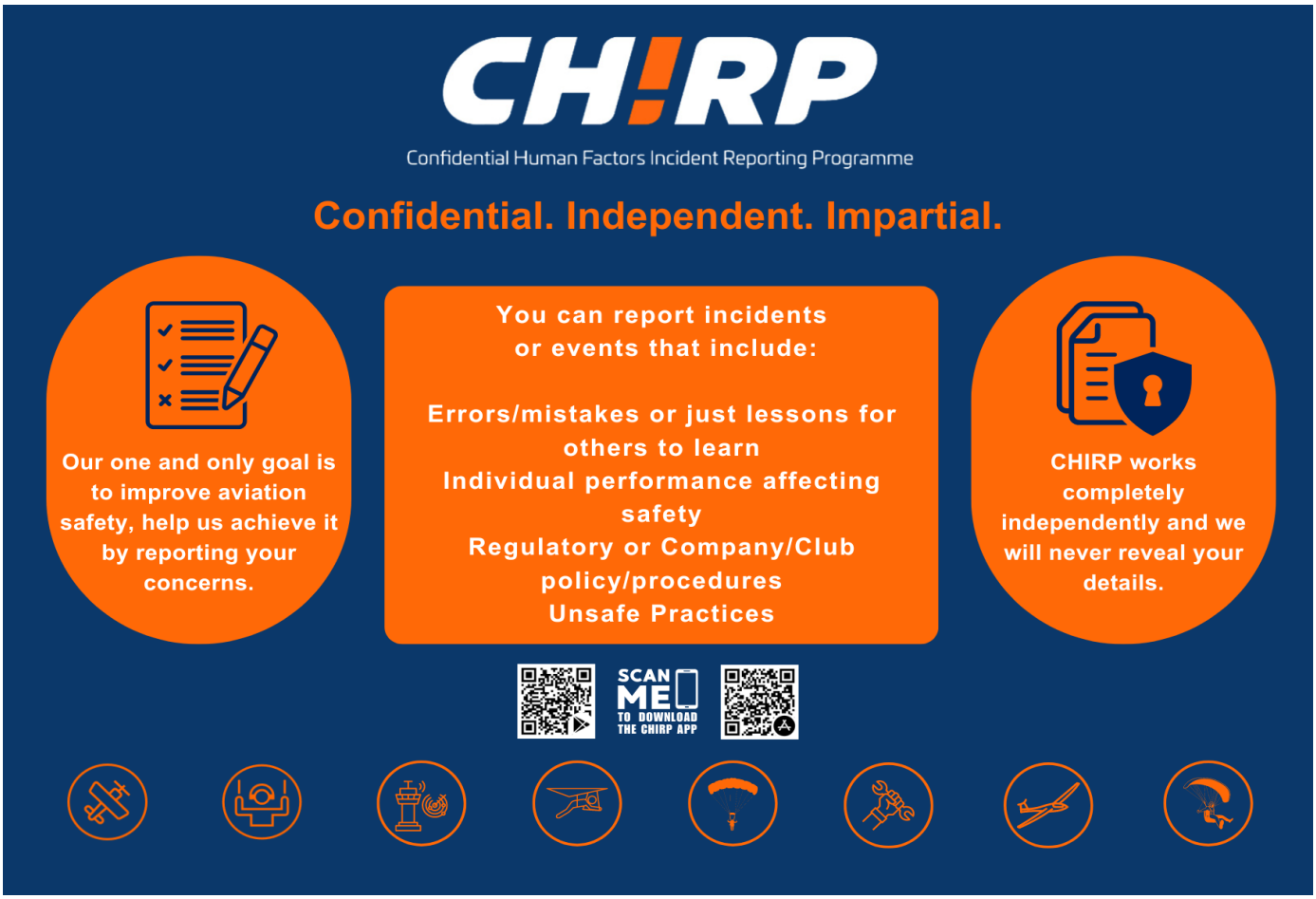
Last minute planning may potentially increase the risk of something untoward occurring during a flight and where possible sufficient time for flight planning should be allowed. The second point is interesting in that it suggests that airspace boundaries, normally intended for IFR, should be created using prominent visual features to aide visual / VFR pilots. Whilst this is one way of mitigating what occurred in this scenario, unfortunately it isn't necessarily a practical or realistic option when one considers how much controlled airspace is near or adjacent to cities / built up areas with few obvious and unique ground features. Beyond taking sufficient time taken for flight

planning using appropriate charts, making full use of in-flight technology, such a Bluetooth audio warning for airspace avoidance, is recommended. Also useful is using the CAA's "take two" advice which recommends planning a minimum 2nm from edge of controlled airspace and to stay at least 200' above/ below – https://www.caa.co.uk/avoiding airspace infringements

Key Issues relating to this report

Possible Human factors considerations that could contribute to an event:

- Stress/Pressure – not having sufficient time available for adequate flight planning activities.
- Lack of Knowledge - not having available the most suitable charts for the task.



Richard Harrison
Director Aviation

Jennifer Curran
Senior Programme Manager and Cabin Crew Programme Manager

Mike O'Donoghue
General Aviation Programme Manager

Kuldeep Nothey
Engineering Programme Manager

The CHIRP Charitable Trust,
167-169 Great Portland Street,
5th Floor, London, W2 6BD

020 4543 2881
mail@chirp.co.uk
reports@chirp.co.uk
chirp.co.uk

Rupert Dent
Drone & UAS Programme Manager

Ernie Carter
Ground Handling & Security Programme Manager

William Dean
Air Transport & Advanced Air Mobility Programme Manager