# **CHIRP GA FEEDBACK**

## **Issue No: 69**

Avgas Contamination

Airspace Infringement

**Danger Area Infringement** 

Very late 'Cleared to Land': Was it an Incursion?

**Potential Collision** 

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## **EDITORIAL**

In addition to our normal distribution, this Edition of GA FEEDBACK is being distributed to the Air Traffic Control Officers (ATCOs), Flight Information Service Officers (FISOs) and Air Ground Communication Service (AGCS) operators who normally receive only the Air Transport editions. The reason is to encourage reporting and comment by these sections of the aviation community as well as providing them with an insight into GA pilots' perspectives.

We have published reports on several occasions about RTF transmissions that fell short of the high standards that we all expect. We received another example from a pilot who overheard an exchange in which there was fault on both sides. A controller was working hard and allowed his frustration to show when a pilot gave his position with reference to a small village of no aviation significance. The controller was wrong to be sarcastic but the pilot was wrong to refer to a place that the controller and other pilots on the frequency were unlikely to know. A rough estimate of range and bearing from a big town, airfield or beacon is better than an accurate position relative to an insignificant village; if using an electronic tablet App check to see if reference features are configurable. Poor RTF wastes time, fails in its purpose of communicating clearly and causes distractions. We all need to think how our message will be received before we press the transmit button.

Ian Dugmore - Chief Executive

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## COMMENT RECEIVED ON GA FEEDBACK 66: MORE ABOUT NOTAMS AND GLIDER COMPETITIONS

Should NOTAMs about glider competitions include an RTF frequency to enable GA pilots to contact the relevant launch site? Military and Royal flights routinely blind call when approaching [], a few GA pilots do so. When they do, we always give an indication of likely local traffic to assist with situational awareness.

CHIRP Comment: Pilots should always assume that gliding is taking place from promulgated glider launching sites and, even on non-competition days, expect that large numbers of gliders will be airborne. A call to a site on the RTF may elicit some useful information but a lack of response does NOT mean there is no gliding taking place. On competition days one option for providing information about competition

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routeing could be to use an ATIS-style broadcast. There are 5 VHF frequencies allocated to gliding activities in the UK:

a. 129.9 Ground Retrieval
b. 129.975 SA within 10nm and 3000ft of a launch site
c. 130.1 Competition
d. 130.125 Competition
e. 130.4 Cloud Flying

Using one of these frequencies, promulgated by NOTAM, for a broadcast about competition activity could provide SA for non-competition GA aircraft - assuming the problem of potential interference between closely located sites could be overcome. As before, the absence of a broadcast or response to a call on the RTF will not mean there is no gliding activity. If a competition has been promulgated by NOTAM, GA pilots must assume that it is taking place and be alert to the possibility of encountering gliders.

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## COMMENT 1 RECEIVED ABOUT GA FEEDBACK EDITION 67 – RUNWAY INCURSION

With regard to the runway incursion report in the latest CHIRP, what should the pilot have done, even if he HAD discovered a radio failure, assuming he only had one radio? He can't talk to the tower. He is inside the airfield ATZ.

In my book, he is doing the right thing by monitoring the other traffic visually and landing, (prioritising aviating over communicating), and sorting it all out when safely on the ground. If the controller didn't like his actions in the air he could always resort to light signals if there was a danger to other traffic. In my book a total reliance on radio, to the exclusion of a good lookout is a bad thing.

## **COMMENT 2 RECEIVED ABOUT GA FEEDBACK EDITION 67 – RUNWAY INCURSION**

The report about a runway incursion when the aircraft radio failed in Issue 67 is really interesting. What should a pilot do in these circumstances? To go around might be dangerous given that the Cessna ahead was doing touch and go?

*CHIRP* Comment: There is another report about runway incursions later in this edition and the following remarks apply equally to it. An incursion doesn't mean the pilot has done something wrong. What would be wrong would be to spend hours dissecting a decision made by a pilot in a few seconds and then criticising it; however, it is right to examine the event and learn lessons from it – which is why we are always grateful for reports like this one that generate a discussion.

Pilots are ultimately responsible for the safety of their aircraft and are sometimes required to take decisions with little time to assess all of the factors. Some decisions are neither completely right nor completely wrong. The definition of a runway incursion includes landing without receiving a clearance from ATC and/or the pilot not acknowledging a landing clearance; it is an incursion even when landing is the best and safest thing to do.

The pilot had been told he was No2 to land, to follow the No1 (a Cessna) and to call final. He attempted twice to call final but because of an insidious radio problem he did not realise that his final calls had not been transmitted. In the absence of a final call from the aircraft, the controller did not issue a landing clearance but the pilot landed anyway as the controller had intended behind the Cessna; the landing without a clearance was technically a runway incursion and was filed as such by the controller. The question is whether it was more sensible to land or to go around. The pilot could see the Cessna ahead of him lifting off and that the runway was clear. However, he would not necessarily have complete Situational Awareness (SA) regarding other traffic and their clearances; at airfields with crossing runways it could be more difficult to have full SA.

When the pilot was on short final he was not sure that he had a radio problem or its nature – simply that he had not received a landing clearance. If he had gone around he would have found himself in the circuit with a radio problem that could have proved a distraction. First though he would need to ensure safe separation from the Cessna conducting a touch and go ahead. Going around on the dead side would have solved this problem. Flying as wide as necessary to keep sight of the Cessna would ensure safe separation until it became clear whether the Cessna was remaining or departing the circuit.

Then the pilot would have needed to deal with his radio problem. In this incident the pilot was able to hear ATC and comply with instructions but it could equally have occurred that he could not receive as well as transmit. What to do? Fly the aircraft! When it is safe to do so, make only a very brief attempt to investigate (headset lead connected<sup>1</sup> and radio on the correct frequency) then accept that you are non-radio and fly accordingly. Transmit blind all the usual calls, fly a standard visual circuit pattern integrating with any traffic visible ahead and land off your first approach. ATC will quickly realise that there is a non-radio aircraft in the circuit and warn other aircraft out of the way. A glance at ATC while on final may reveal a green signal light confirming clearance to land. The absence of signal lights does not mean anything so only go around on receipt of a red.

So, to return to the question of what the pilot should have done; the requirement for ATC to report an incursion was black and white, but what was the best course of action for the pilot? There was a problem but not an emergency. The pilot could see the runway ahead was clear and he believed the sensible thing to do was land but did he have full SA? Was there an over-riding imperative to land or to go-around? It's finely balanced! In the circumstances described and the absence of a landing clearance it may have been prudent to have gone around - but landing wasn't wrong.

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#### **PARACHUTING OPERATIONS IN WEATHER OUTSIDE LIMITS**

**Report Text:** The British Parachuting Association (BPA) sets clear guidelines as to the weather limits required for safe parachuting operations. These guidelines are with the agreement of the CAA. [] continually and flagrantly disregards their rules, putting their regular skydivers and the public attending to take part in tandem skydives at risk. Any date where the cloud cover is such that the "point of intended opening and the landing area" is not visible from the aircraft at the time of exit (as stated in the BPA operations manual) you will find that skydiving is still dangerously taking place - at the risk of all involved. In addition to this, the wind limit of 20kts is also disregarded. The anemometer is discussed as having been "doctored to under-read" on many a very windy day. I have observed parachuting continue in winds exceeding 26kts before now. The BPA have failed to investigate or reprimand this parachuting centre. Something needs to be done before someone is hurt (this has already happened in high winds recently) or worse still fatally wounded in an incident due to the flagrant disregard of the weather limits set out by the BPA (under the CAA).

**CHIRP Comment:** British Parachute Association (BPA) regulations require a Jumpmaster to be carried on any aircraft carrying more than one parachutist. The Jumpmaster is required to be the last person to jump and is responsible for complying with weather restrictions, including the BPA surface wind limit of 20kts:

**1.8.** Jumpmasters must ensure that parachutists do not exit the aircraft if conditions are not suitable (see Section 8 – Parachuting Limitations).

The temptation to push weather limits should be resisted in all forms of aviation. Safety is clearly the most important reason but the potential insurance implications should not be overlooked. Furthermore, it is not only the weather that can cause changeable conditions or hazards in the drop zone. For example, <u>Airprox 2015070</u> occurred when parachutists were dropped from a C208 despite the C208 pilot being given Traffic Information about a C182 that was heading towards the drop zone. In summary, it is essential to comply with the regulations and for pilots and jumpmasters to work together as a team.

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## TCAS CLIMB

**Report Text:** When on a return flight to my home airfield, I decided I would fly across the ILS approach 21 at []. I usually use the overhead and talk to them, however this seemed a quicker passage and I thought if I listened in I would have a clear picture of what if anything was happening. When on frequency I heard a pilot call that he had made a TCAS climb and thought "oh dear someone's in trouble", I felt I had been on frequency for a while and not heard any aircraft on finals.

<sup>&</sup>lt;sup>1</sup> It is always good to try removing both headset plugs and reinserting them. Crud can build up on the contacts and this action should clean them. Once back on the ground the plugs can be cleaned properly.

I called the approach and passed the obligatory message including my present position and altitude. I also heard other aircraft talking to the ATC but had not seen any aircraft in spite of a constant look out.

A little later I was asked on landing to contact the tower which I duly did. To my horror it would seem that it was indeed me that an approaching [aircraft] had seen on TCAS and climbed to avoid.

I thought that 2 miles out and at 2200ft I was comfortably above any aircraft on final, it wasn't until I was sat in my office with the [] approach chart that I could appreciate just how wrong I was.

I do find the Instrument Approach Chart quite difficult to interpret and feel clarity in its layout may assist other GA pilots, however had I called earlier and understood the distances and altitudes of the glideslope then I would have not put another aircraft in that position. My apologies to the [other] pilot.

My advice to any pilot would be to call an airfield you are approaching allowing plenty of time for ATC to advise you of any landing or circuit traffic. I probably would have heard the other aircraft as well had I been on frequency earlier.

In five years of flying and almost 1200 flights I have always thought I was a considerate pilot with good airmanship, just goes to show one never stops learning.

**CHIRP Comment:** The reporter is commended for this honest and open report. Also, by using his transponder he demonstrated good safety practice and enabled the TCAS in the other aircraft to do its job and protect them both. If his aircraft had been 2 miles out from the airfield it should have been well above the instrument glide path and clear of the aircraft on the approach. The reporter subsequently assessed that his flight log showed him around 4 miles away. However, flying anywhere in the vicinity of an airfield without contacting ATC risks conflicting with aircraft in the instrument hold, those outbound for an instrument procedure or aircraft on the approach path itself. Furthermore aircraft conducting non-instrument straight–in approaches would not necessarily comply with the instrument descent profile along the feather.

Although there is a legal right to fly where you will in Class G airspace, the most sensible course of action, as recommended by the reporter, is to call on the RTF. It should be noted that the Instrument Approach Procedure (IAP) 'feathers' on VFR charts are aligned along the extended centrelines of the MAIN instrument runways and are not representative of the coverage area of the IAP associated with that runway. Furthermore, there may be IAPs to secondary runways that are not depicted by a feather. Therefore, pilots are strongly recommended to call before approaching within 10nm of any airfield marked with one or more instrument approach feathers.

Aircraft on the approach to an airfield have no right of way in Class G airspace and must comply with the rules of the air, giving way to aircraft on their right side. Commercial aircraft are also obliged to respond to TCAS Resolution Advisory warnings (TCAS RAs) even if the flight crew believe they are in visual contact with the aircraft causing the warning. The reason is that flight crew have sometimes misidentified an aircraft they can see as the one causing the RA and had a close encounter with the one actually posing the threat. Unfortunately, in the reported incident the aircraft reacting to the TCAS RA climbed into conflict with another aircraft in the instrument hold. This reinforces the unit's preference for transiting pilots to contact them in good time and whenever possible to plan to fly through the airfield overhead.

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#### **AVGAS CONTAMINATION**

**Report Text:** I am the owner of a Cessna 172 which is hangared in []. I was recently up at the hangar checking on my plane when the local farmer came in; he informed me not to use my Avgas as it has been contaminated.

How? At some point in February the JetA1 bowser on the airfield was having its service and filters changed by an external service company, with all the excess fuel which had accumulated during the filter change the service person thought it would be convenient to dispose of the JetA1 in the nearest drum he could find, this turned out to be my half full drum of Avgas which I was planning on using this week.

The drum is a designated [proprietary] Avgas drum, blue and clearly labelled and sitting not too far from a piston engine aeroplane.

Thanks to the farmer informing me of this otherwise it would have gone into my tanks.

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**CHIRP Comment:** Well done that farmer! This was a serious incident with the potential to turn out very badly indeed. It demonstrates that clearly labelling a container does not guarantee that the label will be read. The answer seems to be locking fuel drums securely so that they cannot be accessed by irresponsible or incompetent third parties. Also, if aircraft have lockable fuel tanks, remember to use them as fuel theft is not unknown.

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#### INSTRUCTIONS FROM AIR GROUND COMMUNICATIONS SERVICE (AGCS) OPERATOR

**Report Text:** I was carrying out a flight to []. Despite flying the planned route many times previously, I read numerous sections of the AIP, including the entry for [] to make sure I was up to date with procedures.

I free called [] Radio requesting joining information. I received the airfield details which I read back and joined overhead as per published procedure. On landing I was holding the nose of the aircraft off the runway and slowing down without brakes when the AGCS told me to, "vacate at Bravo". Once I had slowed the aircraft I vacated at B and was instructed by the AGCS operator to, "Taxi to the end of Bravo and park on the concrete as the grass is soft". I was fully aware that an AGCS cannot give instructions, however I complied with them as they know the surface conditions better than I do and understood they were only trying to help.

On departure I again called [] Radio asking for taxi information for a flight to []. I was given the airfield details and also a taxi instruction to, "Taxi to holding point Alpha". Again, I know that AGCS cannot give taxi instructions and due to my pre-flight planning I had already decided that I was going to taxi to Alpha anyway.

To somebody who has an understanding of the different types of Air Traffic Service Unit (ATSU) it wasn't such a big problem; however, I see more and more students as well as PPLs who are confused by the three types of ATSU and actions like the one described above only further blur the important distinctions between the services. I recently witnessed a runway incursion where a pilot simply taxied onto an active runway in front of a solo student at an AFIS unit without calling because he thought AFIS didn't control him on the ground. Ignoring the pilot's disregard for the basic rules of the air, his understanding that he could line up at an AFIS unit without approval stemmed from his misunderstanding of the services which is only exaggerated when airfields don't stick to the rules. The solo student had to go-around from low level to avoid a collision.

What makes matters worse is I train students in correct RT procedures and the limits of the services and when they fly to other airfields expecting one thing and receive something totally different it doesn't just confuse them - it also makes my teaching look incorrect.

Lessons Learned - As AGCS operators only have to pass a Radio Operator's Certificate of Competence (ROCC), are not technically licensed and are not as closely regulated as Flight Information Service Officers and Air Traffic Control Officers. I believe a simple letter or information poster being sent to holders of a ROCC may help to reduce the amount of incorrect phraseology and services being provided.

**CHIRP Comment:** The AGCS operator was undoubtedly trying to be as helpful as possible but the reporter is correct in highlighting the risks of allowing the Air/Ground service to stray from information to instructions. Despite the use of the call sign "xxx Radio", which identifies the service as an Air/Ground service, inexperienced pilots are particularly at risk of treating AGCS instructions as authoritative.

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#### **POTENTIAL COLLISION**

**Report Text:** We were en route to Sleap (EGCV) from the south east under VFR. Weather was fine with good visibility, some haze into sun. In accordance to the published arrival information contact was made with Shawbury APP to obtain MATZ clearance. Approval for MATZ penetration was received "not below 2,100 ft." on the MATZ pressure setting with instruction to call when Sleap in sight to request to change to Sleap A/G. At this time although there was some traffic on the Shawbury frequency it was not unacceptably busy.

At the point Sleap was sighted the Shawbury controller became engaged with another aircraft that was having some communication problems and appeared to be requesting assistance in establishing its location (the aircraft was looking for Welshpool). While this conversation was in progress as it was not

possible to interrupt to request a change to the Sleap frequency and start a dead side decent to circuit height we remained at approximately 2,200-2,300 ft. on the dead side of the circuit. Soon after passing Loppington contact was made with Shawbury and the frequency was changed to Sleap A/G. Sleap were advised that we were descending dead side for a standard overhead join to runway 23 left hand circuit. The A/G exchanges identified some circuit traffic but no other inbound traffic at that point.

Approximately 0.25 miles NW of the village of Burlton, while the pilot was looking for the upwind end of the active Sleap runway the front seat passenger (also a pilot) noted that the PCAS was showing an alert message and saw an aircraft on a converging heading at the same level. At the time of the incident he reported noticing that our height was 2,100 ft. The other aircraft was travelling west to east and appeared to be on a heading in the region of 080-090 at approximately the same level.

We executed a steep diving right turn to avoid contact. The other aircraft did not appear to take any avoiding action. The distance at the point of commencing the turn was thought to be in the region of 50-75 metres, although this is a retrospective subjective assessment.

Following the avoiding turn we reoriented ourselves and made a normal overhead join for runway 23.

When discussing the events on landing there would seem to have been several contributing factors: being unable to request a change of frequency from Shawbury and delayed descent from the "not below 2,100 ft." instruction due to the protracted exchange between the controller and the aircraft unsure of position, the higher than normal workload caused by the need to descend to circuit height while locating the runway while effecting a left turn to cross the upwind end of the active runway and finally the appearance of an aircraft that was not heard transmitting on either the Shawbury or Sleap frequencies prior to the AirProx.

Lessons Learned:

1. R/T communications should be kept to a minimum necessary for safe conduct of the flight. Should protracted communication be necessary try to allow time for urgent/pressing messages from other aircraft to intercede?

2. ATC units need to keep track of aircraft that have been given transient instructions e.g. not below/above X until ... Having given such an instruction the control unit may reasonably expect that aircraft to reestablish communication when the condition is met and should avoid long conversations without breaks.

3. High levels of situational awareness are essential in complex ATZ configurations and the appearance of uncontrolled aircraft need to be considered.

**CHIRP Comment:** It seems clear that delaying the change of frequency from Shawbury to Sleap created the conditions for this Airprox. The Military Aviation Authority confirmed that the Shawbury ATCO would expect the reporting pilot to switch to the Sleap frequency at the appropriate time; the controller would be aware of the reporter's intentions, have been watching his progress on radar and would be aware that there was little opportunity for the pilot to speak on the RT to announce that he was changing frequency. Although this was a close call, the value of electronic conspicuity and collision avoidance systems (in this case PCAS) should be recognised as ultimately saving the day.

It is common in busy Class G airspace to have difficulty in finding a break in the RT to speak to ATC. Sometimes having made contact and been told to standby there is a long wait before being called back. If it becomes necessary to change frequency before a service has been established, pilots should go ahead and change. However, if a service has been established there is a risk that controllers will become concerned if they cannot contact an aircraft they expect to be on their frequency. If it becomes necessary to change frequency bill become size frequency. If it becomes necessary to change frequency in these circumstances pilots can ask the next controlling agency to contact the previous one to confirm that they have moved on. Alternatively, if the frequency change was a result of reaching the planned destination it might be quicker to telephone the ATC unit after landing to explain why it was necessary to leave unannounced. Pilots should not leave a frequency unannounced while flying in CAS!

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#### **AIRSPACE INFRINGEMENT**

**Report Text:** I took what was intended to be a short VFR flight to maintain club currency as I realised that as I was going to have to travel abroad for a funeral of a close family member in a few days and my club

currency would have run out. The conditions were good with good visibility throughout for my short flight over an area well known to me. Unfortunately, shortly into my flight the detachable lead from my headset snagged the harness and pulled out of the ear cup leaving me distracted by the lack of radio communication. I sought to rectify the problem not realising that the lead had become detached and while trying to sort out the problem I found myself monitoring the wrong altimeter. Quite how or why I do not know except perhaps the fact that subconsciously my attention was not where it should have been having suffered two close family bereavements in a relatively short space of time. While I felt fine it seems the relatively minor issue of the headset cable working lose and my efforts to rectify the problem became a major distraction which led me to believe I was flying below the TMA when in fact I had inadvertently entered it.

When I sorted out the problem with the radio I became aware that there had been an airspace infringement in the area I was flying as a result of a message between the tower and another aircraft. I hadn't immediately appreciated it was my infringement as to all intents and purposes the reading I had on the altimeter I was monitoring was showing me below the TMA. I decided to return to the airfield and then realised that I had the wrong altimeter setting in the subscale. When on the ground I called the tower to explain the situation. I recognised that I had made a mistake and while I felt pretty stupid I knew I had to hold my hand up to it. Thankfully [] Radar were satisfied a genuine mistake had been made and the matter could be put to one side, for which I am eternally grateful.

Lessons Learned: I have learned the valuable lesson that one really has to be strict with oneself when deciding whether it is wise to fly. While I hadn't appreciated that I was probably under stress as a result of the recent bereavement, the second one in a few months, I allowed those factors to distract me from my instrument management when a small problem developed in the cockpit.

I have also learned that it would be wise in the future to set both altimeters to the same subscale if I do not need to monitor two different pressure settings so that if a distraction occurs I am not mislead by erroneous information.

I have also decided that my [], while a nice headset, are not to be used when acting as Pilot in Command as the lead is prone to pull out of the ear cup if it gets caught on the harness.

I still feel pretty stupid though for allowing myself to have got into that situation.

*CHIRP* **Comment:** We all make mistakes because we are human but we should only feel embarrassed if we don't learn from them; therefore we are grateful to this reporter for sharing his experience. There are many ways of using 2 altimeters: both to the same setting; one on QFE, the other on QNH; or if climbing above the TA, the main on 1013 and the standby on QNH. It is important to develop Standard Operating Procedures so that we know automatically what each one is telling us in any circumstance.

Distraction is a trap that awaits even the most wary and pilots are more susceptible to it when they are not fully focused on the task in hand. It can be very difficult to assess one's own fitness to fly after illness or following a psychological upset such as bereavement, redundancy, divorce etc. Given this difficulty it is essential to err on the safe side when making the judgment. Finally, minimise the potential for physical distraction; if personal equipment is unsuitable for some reason, it needs to be remedied or replaced.

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#### **DANGER AREA INFRINGEMENT**

**Report Text:** I flew through a live danger area despite having checked NOTAMs, because I mis-read the activation date on the NOTAM. UK dates are normally by convention DD/MM/YY, but NOTAMs use YY/MM/DD on the notoriously poor AIS.org website. This led to me reading '16/03/20' as 16th March (i.e. last Wednesday) when I scanned the NOTAMs at 06:30 on a Sunday morning ready for an early flight down to west Wales, when I was half asleep. As a result, I twice flew straight through the middle of D[] when it was live on Sunday 20/03/16, without a second thought since it is normally Mon-Fri operation only. Luckily, the range controller's lookouts were wide-awake, saw me in the very bad haze, and suspended operations. Very embarrassing, and could easily have been much worse.

Lessons Learned - It would be REALLY helpful if NOTAMs on AIS.org could show dates in the conventional UK format. One of the things we have to learn as pilots is human factors, and making information hard to

readily understand is something which would raise a big red flag in that subject, so it's hard to understand why NATS have chosen to use such an inappropriate date format. I also know I am not alone in making this mistake, as the national range controller for the company who operate this range told me when I phoned to apologise. Ironically, if I had checked NOTAMs on virtually any other source than the official NATS-approved one, it would have shown the date in the normal UK format, and I wouldn't have been misled... Come on guys - sort it out! Everybody else has.

Lesson for me - check and double check. If you see a NOTAM for an area which could affect your flight, make doubly sure you have correctly read and understood it.

**CHIRP Comment:** The reporter is correct that the date format used for NOTAMs is open to misinterpretation. However it is a mathematically logical ISO standard adopted by ICAO and used worldwide in all NOTAMs, SNOWTAMs, ASHTAMs, information bulletins etc. Although it could be done, changing the format on the AIS website away from the ICAO standard risks causing greater confusion, particularly for foreign aviators and the large number of commercial users who systematically process the data by utilising the standard format. Without a great deal more evidence a change is highly unlikely. It should be noted that when using the AIS website, all of the NOTAMs that appear for a selected date will be relevant for that date.

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## VERY LATE 'CLEARED TO LAND': WAS IT AN INCURSION?

**Report Text:** I would genuinely like an answer to the question whether, in the circumstances I am describing, I would technically have been guilty of a runway incursion offence.

Having re-joined the circuit I was instructed by ATC after the downwind call to turn onto right base, but warned that I might have to go around because I was Number Two to land and there was a business jet just ahead on the ILS. Just as I started to turn and reduce the throttle the controller cancelled his last instruction and told me to orbit left from my present position, which I did (with a slight correction to take me to the more orthodox orbiting area where I had orbited many times).

After one orbit he told me for the second time I could proceed to base, and as I began my descent I saw the business jet reach the runway threshold. After I turned on to the centreline and reported Final I was instructed to "continue approach", which I read back. As I neared the threshold I could see the jet taxying on the runway about 1000 metres away (its total length is about 1800m), so there was no danger of my catching him before he turned off; but I had still not been cleared to land and was debating with myself what to do. Should I go around?

The "clear to land" call from ATC came about ten seconds or less (I would estimate 5 but I was too busy to count) before I crossed the threshold.

Would I have been guilty of a serious infraction or only a minor technical one - or none at all - if I had presumed I was clear to land and had landed without being given explicit permission to do so, based on my appraisal of the situation which I could plainly see? I vacated the runway myself onto a left-hand taxiway about 300 metres beyond the threshold.

Should I have landed without final clearance to land (presuming that to be ATC's obvious intention), and what would have happened had I done so?

I don't feel particularly aggrieved about the incident as I have learnt that a certain degree of give and take smooths the relationship between pilots and controllers, and we all make mistakes.

**CHIRP Comment:** As noted earlier, a runway incursion is an event and not an offence, but the answer to the question is yes; if the aircraft had landed without a landing clearance being issued and acknowledged, a runway incursion would have occurred. "Continue approach and expect a late landing clearance" is occasionally used and might have been helpful in the reported circumstances. Landing without a clearance is not necessarily wrong depending upon the circumstances but it is an event that requires the submission of a Mandatory Occurrence Report to the CAA; the onus would be on the pilot to explain why he had landed without being cleared.

From CAP413 Radio Telephony Manual:

4.56 The controller may or may not explain why the landing clearance has been delayed but the instruction to 'continue' IS NOT an invitation to land and the pilot must wait for landing clearance or initiate a missed approach.

At some airfields the term 'land after' may be used as in, "call sign: land after the [aircraft type] ahead". From CAP 413 again:

4.57 A landing aircraft may be permitted to touch down before a preceding landing aircraft has vacated the runway provided that:

1. The runway is long enough to allow safe separation between the two aircraft and there is no evidence to indicate that braking may be adversely affected;

2. It is during daylight hours;

3. The preceding landing aircraft is not required to backtrack in order to vacate the runway;

4. The controller is satisfied that the landing aircraft will be able to see the preceding aircraft which has landed, clearly and continuously, until it has vacated the runway; and

5. The pilot of the following aircraft is warned. (Responsibility for ensuring adequate separation rests with the pilot of the following aircraft.

Note that the word 'cleared' is not used because the pilot is responsible for separation from the aircraft ahead. Where aircraft performance differs markedly or where novice pilots are operating, controllers must be more cautious. Generally, if you haven't been cleared to land or instructed to 'land after' you must go around.

Some flying clubs impose a 'decision height' or range at which pilots should go around if not cleared by ATC or judged safe to continue by the pilot; 200ft is a typical and safe decision gate for airfields with full ATC, FIS or Air/Ground Services. However, at events such as the LAA rally a 200ft decision height would result in an unacceptable number of go-arounds. Ultimately, for VFR traffic in the absence of orders imposed by a club or school the decision is the pilot's to make. It should reflect the pilot's experience, the type of aircraft and the conditions – and at an airfield with ATC not be left so late that the wheels touch the ground as this would technically constitute a runway incursion.

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## **TAXIWAY INCIDENT**

**Report Text:** Whilst taxiing for departure, undertaking checks DI, minor distraction resulted in departure from taxiway through adjacent pebble trough onto waterlogged grass. Prop struck by pebble, severity of which required replacement of prop.

While rounding the bend on the taxiway I was checking DI and compass per normal. I did not notice deviation of aircraft until the left main wheel slipped from taxiway into a trough of pebbles. This was about 18 inches wide running the length of the taxiway. Two attempts to turn right and leave the trough were unsuccessful due to the taxiway edge being above the level of pebbles. I therefore decided to turn left onto grass which I assessed as suitable to continue on and then return to the taxiway.

Unfortunately grass area was heavily waterlogged and within a second or two I was bogged down to axles. At that point, contact with tower advised to shut down and they would send fire crew to pull aircraft free. Once they arrived, an examination of prop showed severe damage to prop about 3 inches from tip, leading edge cut with semi-circular hole 2-3mm diameter. Fortunately the prop had not struck the ground.

After recovery, engineers inspected and confirmed severe damage. When engine run at full power, no vibration or other noise detected.

Comments from Tower and fire crew were that 'I was not the first or the last person to experience this type of incident' and there had been others at the airfield but no indication of similar damage.

What did I learn?

1) Compass and DI checks can easily be made without 'wiggling' aircraft – taxi turns will always be normal.

2) Always assess taxiway widths – some are narrower than others.

3) Always check taxiway surfaces and adjacent areas for potential hazards.

4) If unfortunate to leave normal route (taxi or runway) shutdown immediately – do not attempt to extricate with turn or power.

Conclusion:

My experience shows that the [airfield] management have introduced a hazard without full assessment of risk. Having spoken to several pilot friends who use [the airfield], the pebble trough is not obvious to those taxiing (unless like me, they slip into it). The taxiway appeared in hindsight narrower than usual, although adequate. Any small distraction, causing an aircraft to deviate from centreline, takes it close enough to pick up a stone and prop strike. Whilst accepting [the] intention of drainage, the pebble trough should be covered with sufficient sand or earth to prevent stone pick up. It would be very useful if the Tower advised all pilots or those visiting of the potential hazard and to ensure careful taxiing along centreline or to right.

**CHIRP Comment:** Stone filled drainage ditches are common at airfields but they are often sprayed with a bitumen type material to bind the stones and minimise any FOD hazard. Instrument checks can be tricky in congested areas or on taxiways – if necessary they can be delayed until turning on to the runway. If an aircraft should stray off the paved surface onto an unprepared or hazardous area, the reporter is absolutely right – don't attempt to use power to extricate it; shut down and get assistance.

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#### Notices:

1. FEEDBACK is free. If you wish to be added to the distribution list e-mail us at <u>mail@chirp.co.uk</u> or you can download the App from the App store or Google Play

2. There is an update to the advice about UK Flight Information Services (CAP1434) available on the CAA website that is well everyone's attention.

3. A recent UKAB/BGA Press Release highlighted the risks associated with over-flying glider sites: Following a number of recent incidents that have compromised safety when aircraft over-flying glider sites have come into close proximity with winch-launching gliders, the UK Airprox Board (UKAB) and the British Gliding Association (BGA) seek to remind pilots about the dangers of over-flying gliding sites. This is especially important during the summer months as much greater gliding activity is likely.

Some recent Airprox incidents illustrate the risks:

- 2014013 A glider aborted a winch launch at Tibenham, Norfolk when a PA28 overflew the site.
- 2014211 An Augusta 109 helicopter came close to a glider winch launching at Dunstable, to the west of Luton
- 2015026 again at Dunstable, an MD902 helicopter came close to a launching glider
- 2016036 An unidentified light aeroplane overflew Lasham, the busiest gliding site in the country, during a winch launch.
- 2016074 An R44 helicopter overflew Husbands' Bosworth south of Leicester and caused a winching glider to abort its launch.

Four of these incidents were categorised in the highest risk category - A – where it was judged a serious risk of collision existed and luck played a major part in the fact that collisions didn't occur. The full reports are available from <u>http://www.airproxboard.org.uk</u> within 'Airprox Reports and Analysis', side heading 'Individual Airprox Reports', under the appropriate year.

The key point is that pilots should not rely on seeing the winch launch happening as they approach the glider site. A glider will go from ground to 1000-1500ft in about 20 seconds, so spotting it in the climb is too late to do anything about the conflict. Nor is the danger passed once the glider is released from the winch. Pilots are very unlikely to see the cable itself and, depending on the winch-launch height, the hazard from these continues for at least another 20-30 seconds as it descends under a small parachute that is effectively invisible.

Some glider sites are capable of launching to altitudes of 3-4000ft, with associated increased cable descent times. Maximum launch altitudes



are indicated on the 500K VFR chart with a forward slash and height; as an example, Rivar Hill has a maximum winch-launch altitude of 3800ft, as shown on the accompanying graphic as /3.8.

Pilots should always assume that a gliding site is active. Ed Downham, who, as well as being a UKAB gliding member is a Boeing 777 captain, said: "So far, we haven't seen an actual mid-air, either between the aircraft or with the descending winch cable. But it could soon be a matter for the AAIB rather than UKAB. Be under no illusion, such an encounter is highly likely to be fatal for those involved". Chris Fox, another UKAB gliding member and an R44 pilot, also commented: "A recurring theme in these reports is that the powered aircraft pilot *assumed* that the gliding site would not be active – perhaps because the weather was less than perfect, or it was late in the day. Gliders can, and do, winch-launch in strong winds and any cloud base that permits the launch to be completed safely – often in conditions that would deter many other GA pilots."

The UKAB advice is to avoid glider sites at all times; only overfly them if you have timely, positive confirmation from the site itself that they are inactive. When avoiding glider sites, beware of simply skirting the ground location by a narrow margin because there are likely to be gliders operating close to the site as they soar within gliding range and, even if a site has finished winch-launching for the day, it may have gliders returning from cross country flights, or motor gliders self-launching into the local area. Many gliders these days fly with a system called FLARM, which is a relatively cheap electronic conspicuity aid. The associated P-FLARM unit is also relatively cheap, easy to fit in any aircraft, and provides potentially life-saving audio and visual cues for those hard-to-see gliders.

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