

CHIRP GA FEEDBACK

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EDITORIAL

A recent CHIRP report highlighted an airfield join procedure that the reporter considered to be inadvisable. The disidentified report was forwarded to the airfield operator who discussed it with the airfield's resident users. Their joint conclusion was that the procedure was unsatisfactory and should be changed. It is good to see pilots reporting their concerns in a professional manner and equally heartening to see the professional response by this airfield operator to a well-presented safety concern.

Unfortunately there are still examples of less than commendable performance. Readers may well be aware that following an unauthorised penetration of an active Restricted Area formally established last summer to protect a coastal airshow site, the pilot was prosecuted and fined £1,500, which with added costs amounted to £2,150. Putting the incurred expense aside, such unauthorised penetrations generate a considerable risk. Restricted areas are well publicised by routine NOTAMs; there is little excuse for such a hazardous occurrence.

There are 2 major themes in this edition of FEEDBACK: supervision in training and fitness to fly. We provide advice on supervision for Qualifying Cross Country flights and supervision by and for restricted instructors. With regard to fitness to fly, there are 2 reports that highlight the need to be aware of the human factors that can have an effect on our capabilities and performance. We should all assess ourselves against the IMSAFE checklist (Illness, Medication, Stress, Alcohol, Fatigue, Eating) before every flight.

FEEDBACK readers may wish to note that several of the issues highlighted in the briefing below are featured in the reports contained in this Edition of FEEDBACK. The AAIB has also published information about the causal factors in GA fatal accidents with links to further research papers, regulatory advice and other useful sources of information for the private aviator in its [Annual Safety Review](#) for 2017. The Review also contains information on the AAIB's activity during 2017 and includes an overview of the 29 Safety Recommendations and Safety Actions published in the 39 field and 220 correspondence investigation reports during the year. In addition there is an article on human factors found during accident investigations and how the AAIB is developing its capability in this important field.

Ian Dugmore – Chief Executive

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CHIRP BRIEFING TO THE CAA ABOUT GA PILOT TRAINING ISSUES

With the exception of the section about Partial Engine Failures, all of the issues below were contained in reports to CHIRP in 2017; many were recurring themes. While some of the themes reflect pilot inexperience, it is possible that others reflect gaps in knowledge that could and should be covered in ground-school or during airborne training.

- Inadequate flight planning with a lack of contingency options for weather and/or airspace. Pilots not reading/assimilating NOTAM information.
- Lack of understanding about human factors - physiological and psychological. Pilots seem unaware of the IMSAFE mnemonic for assessing their fitness to fly.
- Incidents while joining and flying in visual circuits regularly feature in CHIRP reports with some examples of pilots appearing to have little awareness of what is going on around them. Also an unwillingness to go around from unsafe approaches.
- Contributing to the problems in the visual circuit, but also evident en route, use of the RT is sometimes poor. Some pilots do not appear to listen out adequately in order to build up their Situational Awareness (SA); incorrect phraseology is common and clearances are not read back in full.
- Misunderstandings about the provisions and differences between a Basic Service and a Traffic Service are common. Similarly the differences between an airfield Flight Information Service and an Air Ground Service. This latter issue is compounded by some A/G Operators exceeding the terms of their Certificate of Competence.
- Many GA pilots fly with GPS, iPads and other technology that can divert their attention from lookout into the cockpit. En route there is evidence of poor task management between the electronic aids, speaking to ATC, and basic navigation.
- Fuel awareness often seems poor. Pilots do not dip their fuel tanks and over-rely on inaccurate gauges. Some reports concern pilots running out of fuel completely. Perhaps pilots learn to fly on aircraft types where the gauge can be relied upon before switching to types where the gauge is a guide only.
- Pilots do not appear to be sufficiently defensive in terms of routing over suitable areas for forced landings and in terms of being unwilling to give way to other aircraft when they perceive they have priority.
- We believe pilots are not routinely taught how to look for hazards in the overshoot when they are selecting suitable fields for PFLs.

A recent report about a Flying Instructor (Restricted) supervising solo students highlighted a lack of information about the nature of supervision for restricted instructors. There is no formal definition of the level or means by which the supervising instructor provides that supervision.

We periodically receive reports about solo students being sent on qualifying cross-country flights with barely sufficient time before destination airfields close or, in winter, daylight fades into twilight.

On the positive side, many pilots write to CHIRP about errors or misjudgements they have made with a genuine desire to help others avoid similar problems.

Partial Engine Failures on Climb-Out

Sadly 'turn back' accidents following attempts to regain the airfield continue to haunt us, despite it being a feature of flying since the start of the last Century. It's the oldest killer in the book.

Events last year tragically saw at least four such accidents culminating in death or life-changing injuries, largely as a result of partial engine failures.

It is noted that a ten-year survey of accidents in Australia showed there were nine fatalities with partial engine failures and none with total engine failures. An analysis of the certainty of accident against remaining power output has indicated that if a pilot has between 25% and 75% power, the likelihood of losing control and a fatal accident was high. Pilots were tempted to turn back or have a go at a low level circuit and ended up stalling/spinning at low level, which is invariably fatal.

While instructors regularly teach 'fan stop' exercises, there is little or no emphasis on dealing with a partial or progressive loss of power. It is often harder to detect and can leave a pilot with too many decisions to make. Perhaps greater awareness by the instructor community to this insidious killer may mean we can reduce the casualty rate in the coming year.

QUALIFYING CROSS COUNTRY (QCC) FLIGHT LATE ARRIVALS

Report Text: We run a busy airfield and this last summer have found that a number of QCC students are being sent on their trips late in the day making it, on occasion, impossible to arrive and depart at our airfield during opening hours. On one occasion the pilot requested fuel and the fuel bay had already closed. Staff stayed on to supply fuel and provide a flight information service for departure, without which the flight home would not have been possible. As a licensed airfield the student does need to land and depart during official opening hours.

We urge instructors to make quite sure that there is plenty of time for the student to complete his or her trip without undue pressure regarding an airfield closing or failing light.

CHIRP Comment: This and similar problems affect several aerodromes. It seems some instructors do not take account of all relevant factors before sending students on QCC flights. Since some aerodromes close rather earlier than others, it is always sensible to telephone on the day to check the closing time and ask if there are any late warnings. There are also instances of students dawdling or introducing excessive delays at their en route airfields and running out of time for the task as a whole. Pre-flight briefings must include the timing imperatives, the communication options for instructors to monitor progress and for students to call for advice if necessary.

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UNSUPERVISED TRAINING

Report Text: The student is flying solo. I understand the only Flight Instructor on site is a restricted instructor.

CHIRP Comment: Under EASA regulations (FCL.910.FI) flying instructors with restricted privileges may supervise solo students but, “shall not have the privilege to authorise student pilots to conduct first solo flights and first solo cross-country flights”.

A restricted instructor may only exercise the privileges of his/her instructor certificate under the supervision of a fully qualified instructor nominated for that purpose. However, there is no definition of the level or means by which the supervising instructor provides that supervision. The issue is further complicated by the variety of training organisations. A Registered Training Facility is a very simple organisational construct, whereas a Declared Training Organisation will be expected to have a safety policy in place with organisation-specific hazards identified, and appropriate mitigations in place.

Supervision should be pragmatic and sensible to reflect the GA operating environment and some general principles apply. It might be practical for the student’s instructor to remain on the ground for circuit exercises but not for cross country flights. If the instructor is still ‘restricted’, the supervising instructor does not have to remain on the ground; again, while it may be practical for solo circuit exercises, for solo cross country exercises the supervising instructor may consider it safe to fly provided he/she is contactable and can be present at the training organisation within a reasonable time to respond to any issues arising.

As GA pilot training organisations differ in scale and complexity of operation, some training organisations have established their own practices in relation to student and restricted instructor supervision that may vary from this guidance. It is the organisation’s Accountable Manager (or equivalent) who needs to be satisfied that the organisational arrangements are appropriate, and the instructor who sends the student solo needs to be satisfied that their student pilot has an adequate level of supervision and support during the solo flight.

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FAILURE TO USE SAFETYCOM FREQUENCY

Report Text: Having done all the appropriate radio calls, on SAFETYCOM, I was on a downwind leg at [] and just looking under my wing before turning onto base leg when I saw another aircraft turning, as if onto base leg, behind me. It looked as though he was cutting me up. I thought I saw some red colouring on the aeroplane and didn't recognise it as one of ours. No radio calls were made by the other aircraft. I was shocked and worried and continued the downwind leg, made another radio call and kept looking under the wing. The other aircraft disappeared and we kept a good look out as we turned to base leg. We kept looking the whole time as we made the rest of our descent and landing. I was very concerned and couldn't understand what had happened. No other aircraft landed and we had no idea where it went.

CHIRP Comment: Another pilot, who witnessed the incident from the ground, said that the reported aircraft appeared to carry out a PFL to low approach before departing. There are published and unpublished landing strips all over the UK. Locally-based pilots would be likely to know of the existence of the strips in their area and the windsock would provide a clue to pilots in transit even if the details are not published. Pilots carrying

out an approach at a place which they have reasonable cause to believe is an operating strip have a duty to fit in with the established traffic pattern. Pilots planning to carry out a PFL on a known strip should, as a matter of courtesy, seek prior permission from the owner/operator.

At aerodromes having no notified radio frequency, a VHF frequency (SAFETYCOM 135.475) is available to assist pilots to avoid potential collisions between arriving and departing aircraft. Pilots may use this frequency to broadcast their intentions for safety purposes within 10 miles and below 2000ft (or 1000ft above circuit height) of an aerodrome. Procedures for the use of SAFETYCOM can be found in Yellow [AIC Y014/2010](#). Transmissions should be prefixed with the name of the aerodrome or strip as in “Borton Traffic, G-ABCD, 10 miles southwest joining overhead, Borton”.

The use of SAFETYCOM is not compulsory but it is recommended. It is also essential, as the reporter demonstrated, to maintain a good lookout as the use of SAFETYCOM cannot be relied upon for protection in the circuit.

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SITUATIONAL AWARENESS

Report Text: This was only the second trip I had undertaken since purchasing a Pilot Aware (PAW) device. I had connected the audio output from the PAW to the music input socket of the intercom. The downside of this being that all input from that socket is muted whenever anyone speaks inside the aircraft or a radio transmission is received.

Prior to take-off from [] I found that the 7 inch tablet I had intended to mount on the yoke to show a RADAR type screen driven by the PAW had a flat battery (I had charged it only the day before).

I also record video and audio inside the aircraft with a Go Pro camera, so that I can analyse and learn from anything that goes wrong during the flight. The flight to [] was uneventful.

Upon starting up at [] for the return [flight] I found that the Go Pro data card was full (4 hours recording time but I had forgotten to delete some previous flights). During the engine run up and taxi I listened to the radio but none of the position reports being given by other pilots gave me any cause to suspect a conflict on take-off.

Approximately 1 minute after take-off on R26, I heard the clipped end of a PAW warning of something 200 ft. above. The start of the warning had been muted out, either by radio transmissions or my passenger talking. With no direction heard, I realised it was a mode C or S equipped aircraft warning. I immediately stopped the climb, saw that I was at 1000 ft. on the local QNH, and increased the rate of my scan around the sky.

4 or 5 seconds later I heard a second Danger warning of an aircraft 100 ft. above. I realised that the time between these 2 warnings meant the other aircraft was not only close but probably ahead somewhere.

I concentrated on the sky and pushed the nose down slightly in the hope of increasing the vertical separation. As I did so I saw a low wing aircraft quickly getting very large about 30 degrees to the right of my heading coming directly towards me and only just above as I reduced my altitude.

My reaction was to continue the descent and turn to the left away from the other aircraft, which then passed safely behind and slightly above us.

This whole incident took no more than 10 seconds and the other aircraft only became visible less than 2 seconds prior to a potential mid-air collision.

Lessons Learned - Always keep a good lookout and always expect the unexpected, even when operating in a controlled environment. None of the radio transmissions I heard led me to expect to see another aircraft crossing the climb out.

Ensure that all safety equipment is operating correctly and has sufficient power for the task in hand. Had the tablet been working, in addition to the audio warning, the first and perhaps second of those I had missed, the radar screen would have visually shown the appropriate warning signals, which would have given me a heads up to the potential conflict much sooner.

Had the worst happened, the video camera would have recorded exactly what happened, had I taken the time to make sure it was capable of recording.

CHIRP Comment: We are grateful for this report, which brings out a number of important lessons about electronic aids, task management and distraction. The easy one first: passengers. In order to minimise distractions, commercial air transport pilots are required to operate ‘Sterile Flight Deck’ procedures during critical phases of flight – typically taxi, take-off and the initial climb, then again in the latter stages of the descent through to the landing and taxi back. The term ‘Sterile Flight Deck’ is used to describe any period

of time when the flight crew members shall not be disturbed except for matters critical to the safe operation of the aircraft. In addition, during these periods of time the flight crew members should focus on their essential operational activities without being disturbed by non-flight related matters, i.e. flight crew members should avoid non-essential conversations. GA pilots should consider emulating Sterile Flight Deck procedures by briefing passengers to assist with the lookout but refrain from non-essential interruptions during the departure and arrival phases of flight.

Turning to the use of electronic equipment, notwithstanding the problems the reporter experienced, the report demonstrates the utility of electronic conspicuity in providing warnings about the proximity of the other aircraft. However, electronic aids must not be allowed to distract from visual lookout! Not all aircraft use electronic conspicuity devices and not all devices are compatible.

Whatever electronic aids are being used, there is the potential for distraction if pilots are not fully familiar with their operating menus and modes and if their management and prioritisation for each stage of flight has not been thought through in advance. With new equipment it is good practice to fly a dual sortie with another qualified pilot or instructor to provide an opportunity for experimenting and practising with the new device. And of course, pilots must be prepared for the occasions when electronic devices fail in flight – always have a back-up option.

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PORTABLE/CARRY-ON ELECTRONIC EQUIPMENT

The comment below was submitted in response to the Editorial in FEEDBACK Edition 75 where we highlighted the importance of keeping electrical leads and chargers in good condition.

Comment Text: Those in the GA and LAA communities should be aware that the quality of the generic plug-in charger - often plugged into a cigarette socket, or in some cases physically installed by taping the plug into a trailing cigarette/auxiliary power socket tucked away - is terrible. The vast majority of these plug-in chargers are electrically very noisy with no, or few, safety features. This can impact the radio and instruments, even if you don't hear the horrible buzz on the radio sensitivity can be reduced. I've seen a GPS receiver drop out just from a noisy plug-in charger.

I had a friend come to me with a horrible problem with their PA28. Their maintenance company couldn't find the problem so asked me what the problem could be whilst they considered their next diagnostic steps. There were radio issues (squelch being broken more often than not, intercom noise, and oddities with the RNAV). When I asked him to set himself up for a normal flight the problem was quickly tracked down to a charger in a cigarette lighter (auxiliary power) socket. I unplugged it and normality was resumed. I took the unit home and tested it; when I put a direct short on the output, as in your cable scenario, the charger emitted a high pitch whine for a few seconds before catastrophically failing with an impressive bang and acrid smoke. It baffled the maintenance people as he took it out when the plane went to be looked at, not thinking it could be the problem. After all it was a quality item from Amazon, a whole £3.99 worth.

With the ever increasing use of Portable Electronic Devices (PEDs) in the cockpit the quality and number of plug-in chargers out there totally unsuited for use in a cockpit is frankly shocking, pardon the pun. It isn't just the lead; people need to be careful with the generic plug-in chargers and the small LiPo based battery packs also often carried to power a PED in flight.

CHIRP Comment: Unlike certified equipment, portable/carry-on electrical equipment is not tested for RF compatibility. Investing in connectors that include appropriate safety features and testing equipment on the ground under conditions that replicate those in flight are sensible precautions.

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NEAR MISS WITH A STUDENT PILOT IN COMMAND OF A HELICOPTER

Report Text: I train from a busy airfield on both 3-axis and weight shift microlights. At times there may be helicopter, light aircraft and microlight training, parachuting, and the usual circuit traffic to contend with. The airfield operates an A/G radio.

Before outlining the incident, it's worth pointing out that the Microlight training syllabus is weighted towards mastering the 'Glide Approach' to land (as opposed to the approach with power) in order to prepare the student more thoroughly for engine failure, an event historically viewed as more likely, particularly in older 2-stroke powered types. This means that the microlight aircraft maintains circuit height (in our case 700') on final before entering what can be a relatively steep descent with no power, the aim being to touch down at the normal landing point. It's acknowledged that this descent profile may make it less likely for pilots to spot you; we can be relatively high, fairly close in. In addition, the weather on the day in question was overcast

with low cloud and occasional slight drizzle so it's quite possible that our predominantly white wing blended into the background murk – the pod itself although brightly coloured is quite small in comparison.

That morning I had flown 2 lessons totalling 2:15 of circuits in a 3-axis microlight, switching to a new student at midday, also on circuits, this time in a weight-shift microlight. Approximately halfway through the one hour lesson whilst we were late downwind, G-XX, the helicopter school's aircraft called up to announce his intention to hover-taxi to holding point Alpha which is adjacent to the start of the concrete section of the runway for 27. In all flights that day, we had been aiming to land on the concrete runway adjacent to Alpha as the grass portion of the runway (although suitable for take-off) was muddy, puddled and rutted through the usual touch down/roll out area.

My student made no comment about the hover-taxi call from G-XX so (now on Left Base) I reiterated the call and pointed out that the helicopter pilot was a solo student - denoted by the callsign "Student G-XX". I think my exact words were "We'll keep an eye on him; he's a solo student and could do anything". Quite prophetic as it turned out...

We turned Final, my student making the appropriate call. The helicopter made a call shortly after "XXXX Radio, G-XX... Ummm..." which I noted but didn't remark upon as my student was entering the glide (glide approach) and I didn't wish to distract him.

On very short Final at a height of perhaps 50' the helicopter moved onto the runway in front of us with no radio call. It really did seem to fill my visor and I initiated a go-around immediately, calling (in a less than calm voice) G-YY Going Around! I estimate that we cleared the helicopter's rotor by perhaps 20'. Shortly thereafter in a somewhat calmer voice I stated on frequency "G-XX you just moved in front of a microlight on very short final" Not the best R/T but I wasn't sure he'd seen us at all. I received a shaky "Roger"; clearly, he had.

Now here's the really surprising bit – my student had been so focussed on his landing (he was just approaching the round-out point) that he hadn't noticed the helicopter moving into our path at all! Indeed, he subsequently said that on feeling the bar move forward and full power being applied for the Go-around, he wondered what he'd done wrong!

Both aircraft continued in the circuit for the remainder of the hour and as luck would have it we shut down close to each other at the same time. The helicopter Instructor, his student and I took the opportunity for an amicable and constructive chat about what had happened.

Lessons Learned - The 'Student' callsign is invaluable. Not only does it warn other fliers that someone may need more space or time, but it also primes you to expect the unexpected.

Never assume that your radio call has been heard and understood. My student missed the helicopter's call to taxi and he in turn missed our call on Final.

A helicopter in the hover at the hold is not the same as an aircraft at the hold – he is busy flying the aircraft, it may well demand his full attention.

Never assume that you've been seen just because you're on final – many factors may make you difficult for others to see.

Be ready at any stage of the landing to Go-around and never relax – there's no doubt in my mind that a 1 or 2 second delay today would have resulted in a spectacular accident.

The student pilot, no matter how proficient he seems or how far advanced in the syllabus is still learning and may be at saturation, with little capacity to take in extraneous factors.

Two students in the circuit more than doubles the hazard.

CHIRP Comment: There is little to add to this first class report. Microlights and autogyros tend to fly steeper and slower final approaches than other aircraft and may not be seen by pilots looking up along the 'normal' 3 degree approach. Also students and less experienced pilots tend to focus much of their capacity on the task in hand with little left over for gaining and maintaining awareness of what is going on around them. There is no reason to suppose that the student helicopter pilot did not look up the approach lane before taxiing on to the runway, but he would be required to do so while maintaining the hover. A near miss like the one described would be likely to have a disturbing effect on an inexperienced pilot; if his instructor had been aware of what happened he would no doubt have recalled the student to settle him down before sending him out to resume the circuit detail. Of note, had the helicopter not hover-taxied in front of the microlight, there could still have been a hazard from its downwash blowing across the runway. An example of this occurred in an [accident at Shoreham](#) in 2016. Finally, how good it is to read that the helicopter instructor, his student and the reporter had an amiable chat about what happened afterwards. Excellent!

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STARTED TO TAXY WITH TOWBAR ATTACHED

Report Text: I've been flying the aircraft concerned for over [] years and have approx. [many] hours in it. Nevertheless, I'm cautious, I stay within my limits, I use the checklists, and I take care with flight planning. This incident – my greatest ever blunder - has rammed home that no matter how experienced and careful, mistakes can still happen.

My usual routine is to phone ahead, to ask the ground crew to pull the aircraft out of the hangar. When I arrive it's out on the grass, and my first action is to remove the tow-bar before starting on the external checklist.

On this occasion, I had skipped breakfast – and coffee – as I wanted to get airborne as soon as possible for a short local flight before the forecast weather arrived. When I arrived, the aircraft was still in the hangar, so to save time, I did the external checks with the aircraft still indoors. When the ground crew arrived, I helped them pull the aircraft out to the grass, got in, carried out the internal checklist, started the engine, and started to taxi.

My home field is A/G only, and I routinely start up (and often taxi initially) without wearing my headset. This became a habit after an engine overhaul, listening for anything out of the ordinary. A few seconds after I started to move I became aware of a metallic rattling sound, but everything else seemed normal. I probably taxied for a minute or so, trying to figure out what the noise could be. I had had a similar rattle about a year ago, which turned out to be the fire extinguisher clasp which had come loose, so I did spend a number of seconds checking this and looking and feeling for other loose items. Suddenly, something connected in my mind and I realised that I had no memory of removing the tow bar. I shut down immediately.

My blood ran cold when I saw that the tow bar was still attached. I removed it, and inspected both it, and its attachment point on the nose leg. There was, remarkably, no sign of damage, to the nose wheel or leg, or to the tow bar or its attachment points, or, thankfully, to the prop. There was also no sign of a furrow in the soft ground behind the aircraft that might indicate large forces had been applied. Amazingly, I seem to have got away with it.

Lessons Learned - Obviously I feel very foolish indeed, but there's quite a lot to take away from this.

First a couple of positives: I was probably saved because I wasn't wearing the headset initially, and because I always taxi slowly to protect the nose leg. So I heard the rattle (I might not have if I'd been wearing my headset), and I wasn't going fast enough for the bar to either dig in and bend something, or bounce up and destroy the prop.

Now the learning points:

In retrospect, it's a classic case - time pressure, possibly low blood sugar, and a change of routine combined to create a potentially bad situation. It was compounded by the fact that the previous rattle had turned out to be trivial, so led to at least a tacit assumption that it would be trivial again. That tacit assumption was a clear symptom of complacency, and in future I would certainly stop taxiing immediately, shut down, and carry out a careful inspection, rather than continuing, even for a few seconds, with an unidentified unusual noise.

It is also clear that any change in routine (such as completing part of the pre-flight indoors in this case), or indeed any distraction, should be accompanied by a review of the checklist to ensure that nothing has been missed. I'll be on the look-out for such situations in future.

CHIRP Comment: We are really grateful for this honest report and excellent analysis of an embarrassing error, which is not an uncommon one. We all need to be aware of the risks associated with changes to a familiar routine and the potential effects of low blood sugar; anyone who has not eaten since the night before is in a state of fast. We are grateful for the opportunity to remind readers to run through the IMSAFE human factors checklist before every flight to ensure they are fit to fly. IMSAFE: Illness, Medication, Stress Alcohol, Fatigue, Eating.

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FAILURE TO CHECK BRAKES OFF

Report Text: The weather was dry. I had two previous flights that day, with no failure to follow correct procedures and without incident. I had drunk just half a pint of beer some hour and a half before return flight to []. Having failed to release the hand-operated brakes before take-off I did notice that my acceleration was poor, despite full RPM on this hard runway. On arrival at [], I failed again to check brakes-off during the pre-landing checks. My landing seemed normal, and despite the tyre-screech on the hard runway I failed to consider the brakes. The long runway precluded the need to use brakes anyway and it was not until I had taxied to the clubhouse that I noticed that the brakes were still on, and must have been since

the holding point [prior to take-off]. I do believe that this small amount of alcohol, although having no noticeable effect on me, nevertheless did affect my ability to operate the aircraft.

Lessons Learned

- (1) Drink no alcohol at all.
- (2) Full self-discipline is required when using check-lists and mnemonics.
- (3) This flight might have ended in disaster in another type with more efficient hand-operated brakes.
- (4) The importance of keeping toes off brakes in those types during take-off and landing.

My subsequent self-discipline has been greatly improved.

CHIRP Comment: Although tiredness on the third sortie of the day may have been a contributory factor, we agree with the reporter's analysis of the cause and endorse the first lesson learned, "Drink no alcohol at all".

Although the legal limit for alcohol in pilots' bloodstream is 20mg per 100ml, one quarter of the UK limit for driving, alcohol impairs performance at any level and the impairment increases exponentially with the amount taken. Also, many medicines, whether prescribed by a doctor or obtained 'over the counter' or by other means (e.g. over the internet) and illicit drugs also impair performance. In the short term (minutes to hours) judgement and decision-making will be affected, there will be an increase in errors and risk-taking behaviour, mood changes, poor co-ordination, tracking and concentration and slow reaction times. Some effects can persist for several days, particularly poor balance and slow cognition. IMSAFE!

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LISTENING SQUAWKS

The UK Civil Aviation Authority (CAA) has released a new version of its popular '[listening squawks](#)' flight card in time for the summer general aviation flying season. Listening squawk codes are allocated to most large airports and aerodromes to enable air traffic controllers to alert pilots if they look likely to infringe airspace. Pilots simply dial-in the code into their transponder and listen-in on the airport frequency when in the vicinity of that airport. The controller will then alert them if required.

The new card depicts all 23 codes and radio frequencies in a quick-reference visual format. All GA pilots are advised to use the card as part of their pre-flight planning routine this summer. A large format [poster](#) is also being made available for use by flight training facilities and flying clubs. The card and poster also show Lower Airspace Radar Service ([LARS](#)) units.

The CAA has begun distributing copies of the card and poster to the GA community, but pilots can download their own copies from <http://airspacesafety.com/listen/>

Hard copy versions will also be available on the CAA stand at major GA events such as Aero Expo this summer.

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TRANSITION TO 8.33 FREQUENCIES

Readers are reminded to keep up to speed with the transition to 8.33 kHz frequencies. Go to [AIP Supplement S019/2018](#) for full details. PLEASE NOTE these changes are effective on various dates.

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MIND YOUR LANGUAGE

If you are flying to France be sure to take a look at the French [VFR Guide](#) and note Page 92, which says:

LANGUAGES TO BE USED

Air traffic services messages can be transmitted in French or in English unless "FR only" appears on the aerodrome charts; when it does only the French must be used. However French pilots must use the French language except for training requirements.

Note: the abbreviation "FR only" is systematically indicated when the aerodrome is open to IFR traffic when there is no traffic services organism.

The note means that French language is used when ATC or the AFISO position is closed.

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AND FINALLY....A REPORT FROM OUR US COLLEAGUES IN THE NASA AIR SAFETY REPORTING SYSTEM

Report Text: We were in a C-310 conducting a training flight practising Single Engine manoeuvres when I noticed an unusual charge rate of 28 amps. Shutting down the left and right generators separately and

together and reset the battery master switch in different combinations to eliminate the charge did not stop the charge and all electrical power was soon lost.

We lowered the gear and visually confirmed they were down but could not confirm they were locked with no electrical power. Since there was the possibility of other issues we decided to divert to ZZZ as they have a longer runway. We called via cell our home airport manager requesting they call ZZZ Tower and advise we were inbound with no radio and to provide our cell number. ZZZ tower called us and advised to continue for a low pass to confirm the gear was down and return to land. Tower confirmed the gear was down, gave us a green light and we landed on Runway XX.

Contacted the Mechanic who determined it was a failed left starter solenoid/left starter. It's with an abundance of caution I make this report as I do not feel we were in a serious situation or incident and believe we managed the systems problem successfully while communicating with ZZZ Tower.

Recommendation: I've noticed other C-310s having similar solenoid problems resulting in electrical power loss due either to the starter solenoid or starter switch. This might be worth determining whether this is systemic and advise other operators.

CHIRP Comment: We have included this report to highlight the value of having useful telephone numbers and a mobile telephone to hand while airborne.

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