

CHIRP FEEDBACK

Issue No: 46

Winter 2010

CHIRP - NEW ADDRESS/TELEPHONE/FAX NUMBERS

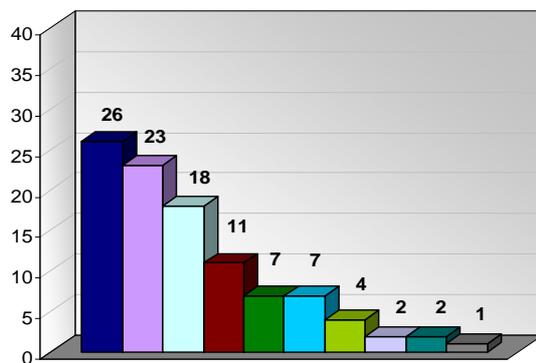
Please note that at the end of October 2010, CHIRP relocated to a new office in Farnborough.

Our new postal address is: **26 Hercules Way, Farnborough GU14 6UU.** (Please note our new FREEPOST address at the foot of this page). Our Freefone telephone number and e-mail address will remain unchanged (also at the foot of this page).

Our new office telephone/fax numbers are: **Tel: 01252-378947**

Fax: 01252-378940

Most frequent GA Issues in CHIRP Reports 12 months to 31 October 2010



	Communications - External With ATC
	Handling/Operation Airmanship, Handling of A/C, Operation of Equipment
	Individual Error Lack of Experience, Overload, Inadequate Knowledge/Skills
	Air Traffic Management Level of Service, Separation
	Aircraft Technical Propulsion, Design, Systems, Cockpit Equipment
	Near Miss Airprox
	Maintenance Servicing Error, Standards of Workmanship
	Relationship Management Planning/Organisation of Task
	Company Policies Operational, Safety Reporting/Culture
	Communication - Internal Team/Shift/Watch

PASSENGER DISTRACTION

Report Text: I completed 3 take offs and landings in my single engine aircraft to enable me to carry a passenger (his first trip) and then taxied to the light aircraft parking area in order to pick up my passenger. I did not shut down.

My passenger got in and noticed a red warning lamp (Low voltage). I explained what it was, and that there was nothing to worry about i.e. old aircraft with generator, needs lots more revs before battery starts to charge.

I proceeded to check brakes and apply power to demonstrate that the warning light would clear - which it did. However, I forgot to check behind and very nearly 'blew away' a flex wing microlight, producing an irate owner, though, fortunately, no damage. The microlight was a visitor, and was parked in an area which is not normally used, and is arguably an incorrect place, although this does not excuse my failure to check behind, or the fact that despite this being my 'home' club, I had not seen the signs indicating 'aircraft' and 'ULM' parking areas.

This was a minor incident, and no damage to person or property resulted but it does demonstrate how taking passengers, especially young or inquisitive, or even just enthusiastic ones, can make a pilot do things he wouldn't normally do - and that can have consequences! Lessons Learned:

1. A passenger is an addition to your responsibility and your workload - it should be a big factor in your 'Go/No-go' equation.
2. Always check behind before start-up, power checks or any addition of power while near to people or equipment or buildings.
3. Don't let passengers divert you from good airmanship.

CHIRP Comment: Two additional points are worth making in relation to flying with passengers, particularly those with no previous flying experience. The first is not to board a passenger with engines running unless the passenger is professionally supervised. The second is that it is a requirement to conduct a passenger safety briefing; this is best done 'in situ' highlighting the method of evacuating in an emergency, the location of vital controls and approved stowages for loose items such as cameras. The last point is particularly important as several fatal GA accidents have resulted from the inadvertent restriction of flying controls by items carried by passengers.

ALWAYS CHECK, NEVER ASSUME

Report Text: This incident occurred while pre-flighting on the second flight of the day. The flight was to be a short pleasure flight during a fly-in. I had a young passenger

GA FEEDBACK is also available on the **CHIRP** website - www.chirp.co.uk

A General Aviation Safety Newsletter

from **CHIRP** the Confidential Human Factors Incident Reporting Programme

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strapped in the back seat of my Super Cub, so that his friends could take his photo before we flew.

I had left my kneeboard and biro on the front seat ready to pick up as I got in. When I moved the elevator from the outside to check for full and free movement it jammed fully up. There was nothing visible in the cockpit to cause a jam and the elevator felt solid when trying to move the stick or the elevator itself.

I de-planed my passenger and removed the appropriate access panels to locate the problem. I found no evident foreign objects or damage. At this point I looked more closely at both control columns. They are linked by a fore and aft tube fixed at the base. The front control column is bolted to a curved fitting with a gap at the front of the stick. As you can see from the photo the gap is fairly small, but it was large enough to accept a plastic pen which then was nicely hidden behind the fitting and acting as a very effective control lock. It was fairly easy to work it out once I had seen it. I did so, and replaced the access panels. After a second pre-flight I then flew my passenger on an uneventful flight.



Lessons Learned: Despite this being the second flight of the day, I carried out a full pre-flight inspection; obviously a useful thing to do. What was not so clever was leaving loose articles on the seat while doing the external walk around. I am considering how to make a sock around the stick to avoid this happening again, and am tying my biro to my kneepad. Oh, and using only light, fragile, pens. This could have been a lot worse if the pen had fallen in during the flight.

CHIRP Comment: This is a useful reminder of the potentially hazardous implications of a loose article. If you lose a pen or other small item in the cockpit, make a thorough search before flying again.

One option with a control configuration similar to that in the photograph above is to fit a flexible 'glove' around the base of the control column, similar to that on the gear lever of many cars.

RUNWAY INCURSION

Report Text: I flew my C172 to XXX (Northern England) for maintenance. En route we had good two-way radio communication; however, on arrival I could not make radio contact with XXX Radio and elected to land on the south westerly runway that was in use by other aircraft.

I had taken a pilot friend along for the ride; he took up my offer to fly back to base after the maintenance was completed.

On preparing for departure we changed headsets round, once the engine was started I called XXX Radio; as we had learned that XXX Radio was not manned, no reply was heard. We then started to taxi, having to cross the runway to taxi to the threshold of the south westerly runway. Being in the R/H seat, I had a good look to the north easterly end with the P1 also glancing. As we did not observe any aircraft we continued to cross the active runway.

When about 100m along the taxiway we were both astonished to see a low wing twin aircraft alongside us on the runway. Immediately re-cycling our radio enabled us to communicate with the pilot, who complained of a runway incursion. Shortly after, we departed, having no problem with radio en route.

On reflection the landing aircraft must have just been touching down at the threshold of the north easterly runway at the vital time; this has an upslope and is also slightly undulating and must have been just below my line of sight.

Lesson Learned: Having observed the windsock we made the decision to use the south westerly runway and expected everyone else to do so, but I know some pilots prefer to land uphill at XXX even with a tailwind component and in future we must take more care before crossing the runway.

CHIRP Comment: This report highlights two points. First, even if a ground station is not manned it is important to make the standard R/T calls to assist other pilots with their situational awareness.

Second, at airfields without a full ATC service, the responsibility for ensuring that it is clear to enter/cross an active runway is entirely that of the pilot. Regardless of whether the threshold is visible or not, always ensure that the runway and final approach are clear.

AN INFRINGEMENT LESSON

Report Text: A lesson on Effects of Controls with an enthusiastic but not overly coordinated student commenced on a morning with less than perfect weather. Rather than stray further from the airfield and risk getting cut off by incoming weather, I elected to stay closer than normal for the exercises and underneath the 2,500ft sector of the London TMA (normally we tend to teach in an area where the base of controlled airspace is quite a bit higher and the ground also lower). Being acutely aware of the airspace above, I remained as vigilant as possible as to our altitude.

We started with trimming and as the student appeared to have understood and was demonstrating the basic use of the trim quite well, I began to set the aircraft out of trim for the student to correct. The student confirmed that he thought he had trimmed, and on releasing the controls, the aircraft pitched down sharply indicating that the student had not trimmed correctly. Further training followed and we moved further East away from some approaching drizzle.

Once the student had got a reasonable grasp of trim, we moved onto the effects of power. At one point I allowed the student to try the effect of adding power until the aircraft had climbed fairly near to the base of controlled

airspace (at 2,500ft) and then ensuring a descent again to remain clear.

Throughout the lesson I had the Mode S transponder on, with code 7000 and Altitude Reporting selected, but as we were operating close to our home airfield I had decided to stay on the airfield frequency (A/G).

On returning to the airfield, I was asked to call Swanwick as I had been seen to be above the TMA lower limit by 300ft. I had no recollection of climbing that high, always being aware of the base of controlled airspace. On phoning Swanwick, I was informed that an outbound aircraft from Northolt had had to be vectored around me.

Lessons Learned: On reflection I believe several factors contributed to the occurrence (as usual the "Swiss Cheese" effect):

1. Attempting to teach a lesson involving climbs and descents between a fairly low Controlled Airspace base (2,500ft amsl) and reasonably high ground (elevation around 500ft amsl)
2. The knowledge of the poorer weather which was moving in causing a distraction in terms of ensuring we would be able to return to the airfield
3. Allowing myself to work too close to the vertical boundary of controlled airspace for the perceived benefit of the student
4. Staying on frequency with a service which was unable to provide any navigational assistance, just because I wasn't operating too far away. Farnborough Radar would have alerted me, had I elected to contact them.
5. Possibly (I still don't know if this is the cause) misreading the traditional 'clock' pointer style of altimeter due to being distracted with the student's learning. I believe that perhaps I misread 2,800ft as 1,800ft. Alternatively the sub-scale setting may have been incorrectly set.

In the future I will try to make full use of air traffic services available, even if not necessarily directly required for the nature of the flight. I will also evaluate more closely my operating area (including maximum altitude) and weather conditions; and also pay careful attention to accurate altimeter readings and settings.

On a positive note, the operation of a transponder with altitude reporting may well have prevented a more serious incident, and I would never intentionally operate with it turned off.

CHIRP Comment: A recent CAA (DAP) analysis of Controlled Airspace infringements highlighted that the majority of incursions involved pilots flying local flights from airfields situated in close proximity to Controlled Airspace, as was the case in this report.

As the reporter acknowledges, this incident is a classic case of an instructor electing to carry out basic instruction with a student in marginal weather very close to Controlled Airspace with little or no margin for error, and becoming distracted.

The reporter is to be congratulated for submitting this report for the benefit of other pilots/instructors. Also, the incident highlights the importance of keeping Mode 'C' (Altitude Reporting) on throughout the flight.

FUEL TROUBLES (1)

Report Text: I had not flown the Super Cub for 4 months. On every previous occasion it had been presented with full tanks both sides. I did the walk around and checked the fuel via the sight tubes in the wing root. The float was at the top on the right hand tank so I assumed that as on all previous occasions the tank was completely full. I did not dip the tanks due to complacency!

Taxiing out the final checks at the hold point showed the float was now at the bottom of the gauge!

Much chastened we taxied to the fuel bowser.

After this incident, I recalled an old trick of putting a series of thin diagonal lines behind the sight tubes. The refraction difference between fuel and air puts a "dogleg" in the line when seen through the tube.

Line looks bent = fuel; line looks straight = air.

Lesson Learned: Always check! Even sight tubes can be misread.

CHIRP Comment: In many light aircraft types the maximum fuel load will depend on the weight of the pilot(s), passenger(s) and baggage. Unless the fuel tanks are known to be full, the tanks should be 'dip-checked' during the pre-flight checks whenever this is possible.

As regards the 'trick' referred to in this report, the most appropriate method is to position a white paper/ card/ plastic sheet behind the sight tube marked as suggested. Do not mark the sight tube directly, as this can lead to damage.

(2)

Report Text: During the cruise, the engine failed. A MAYDAY was called and a 'dead stick' landing was carried out at a disused airfield.

After landing, discovered fuel tank caps had not been secured. Fuel had been lost. Police attended, Notified ATC and Distress & Diversion Cell of safe landing.

Engine was OK after refuelling.

Lessons learned:

1. Check fuel caps when doing pre-flight walkaround.
2. Aircraft slows up on final much more with engine "windmilling" than on tick over when practicing forced landing.
3. Remember to close throttle on final in case engine re-starts and causes overshoot.

CHIRP Comment: The low pressure area above the wing will cause a loss of fuel if the tank cap/seal is not fitted correctly. Regular checks of fuel remaining at 10-15 minutes intervals during the cruise will avoid being caught unawares by an abnormally high fuel consumption or a fuel leak such as that described.

The reporter makes a good point about a windmilling engine; in addition, remember to adjust the landing flare to allow for less elevator control authority (no engine slipstream) and more energy loss (increased drag).

One final point; if you have time shut the engine down completely.

CIRCUIT JOINING PROCEDURE

Report Text: I was approaching ZZZ (Southern England) from the South and asked for permission for a straight in approach to the northerly runway. This was denied and I was instructed to do an overhead join. This I did, descending on the deaside from 2,000ft and crossing the runway at circuit height to join downwind. There was such dense radio communications that I was unable to make any calls other than reporting deaside. I knew there were at least two other aircraft in the circuit and heard one downwind call as I crossed the runway. As I joined downwind I managed to make my call which was immediately followed by a query from another aircraft as to my position. At that moment I saw a turboprop (single engine) in my one o'clock about 100 yards away and 100 feet above me.

Lessons Learned: I have always thought that this sort of overhead join in a crowded circuit is fraught with potential dangers of this sort. I was looking hard and failed completely to see the other aircraft and, given the radio 'clutter' I'm not sure what else I could have done. Maybe orbit on the deaside until the rest of the traffic was apparent?

CHIRP Comment: It is the responsibility of a pilot joining a visual circuit to give way to other aircraft in the circuit.

One of the principal purposes of a standard rejoin is to avoid the type of situation that the reporter experienced. The 180-degree descending turn on the deaside should permit the position of all other aircraft in the visual circuit to be assessed and, unless it is necessary to adjust the join to fit in with other circuit traffic, crossing the upwind end of the active runway onto the downwind leg allows other aircraft taking off and climbing upwind to adjust their circuit pattern behind a joining aircraft.

As the reporter notes, a high level of R/T transmissions can be distracting but might be indicative of a busy circuit. If this should be the case, it is fundamental not to commence an overhead join unless the position of all other aircraft in the circuit is known. If this is not possible, the most appropriate course of action is to delay commencing the join.

CAA General Aviation Safety Sense Leaflet No. 6 'Aerodrome Sense' published in LASORS and on the CAA website contains more information on this topic.

CLOSE ENCOUNTER ON FINAL APPROACH

Report Text: Returning to the airfield after an uneventful cross-country in excellent VFR conditions, I made contact with the Air/Ground station and joined left base for the runway in use with no other traffic in the circuit.

As I began to roll out on finals, I was surprised to see a PA-28 crossing right to left in front of me, no more than half a mile distant and effectively passing through the airfield overhead at a similar level to myself. I was even more surprised that the PA-28 then started to bank to its left and roll out on heading that now had it coming directly towards me, the wrong way along finals, and at the same height as me.

I banked hard right and watched the PA-28 pass down my left hand side, about 100 yards distant and no more

than 50 foot below. I don't think the PA-28 ever saw me, even though it is my routine practice to have my landing light illuminated when on finals, even in good VMC. Certainly the PA-28 made no attempt to alter its track.

Having recovered the aircraft (and my composure), as calmly as I could I called A/G and said "Be advised that a PA-28 has just flown the wrong way along finals". Equally laconically they replied "Well he wasn't talking to us!" I then landed without further incident.

Lessons Learned:

1. The lesson here is to always expect the unexpected. Despite being a busy airfield albeit unlicensed. It therefore has no ATZ, and so technically there is nothing other than the practice of good airmanship that would have obliged the PA-28 not to be where it was, and nothing other than good manners that would have obliged it to talk to the A/G station
2. The airfield is in close proximity to another, and so my guess is that the PA-28 had inadvertently strayed into my circuit whilst positioning to rejoin the other circuit. Our A/G's laconic response was quite correct: A/G is not Air Traffic Control, and it is only there to allow the exchange of information to participating pilots - the responsibility for traffic avoidance remains the pilot's!
3. Also, it is worth perhaps routinely practising manoeuvres in unusual configurations; you don't expect to have to throw around a C-172 when you're 'low and slow' in the approach configuration, but sometimes needs must.

CHIRP Comment: Notwithstanding the fact that the airfield did not have an ATZ or ATC control it should be remembered that Rule 17 (5) still applies in that: 'when flying in the vicinity of what the commander of the aircraft knows or ought reasonably to know to be an aerodrome, shallconform to the pattern of traffic formed by other aircraft intending to land at that aerodrome, or keep clear of the airspace in which the (circuit) pattern is formed'.

Remember that you can file an Airprox Report for incidents such as this (e-mail: info@airproxboard.org.uk; tel: 0208 8426051). If you intend to file, state so at the time on the VHF frequency in use; this is important because it prompts everyone on the frequency to make a mental note of where they were and what they were doing. Don't hesitate to declare an Airprox at the time - you can always change your mind about filing later.

ANYTHING TO REPORT?

Due to publishing/distribution costs, we have not included report forms with this issue of GA FEEDBACK.

We still welcome reports. If you would like to submit a report to CHIRP, you can do so by the following means:

- Submit an electronic report via our secure website
- Download a report form from our website and post/fax it to us (see P1 for details)

www.chirp.co.uk

Or, you can e-mail us at: confidential@chirp.co.uk*

*CHIRP does not recommend the use of non-encrypted e-mail systems for submitting sensitive information