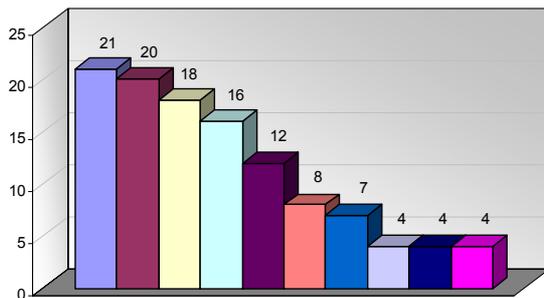


# CHIRP FEEDBACK

Issue No: 28

Summer 2006

**Most frequent GA Issues Reported  
12 months to April 2006**



- Handling/Operation**  
Airmanship, Handling of A/c
- Procedures**  
Use by Others, Use by Reporter, Adequacy
- Communications - External**  
With ATC
- Near Miss**  
Airprox, Near Collision with Terrain, Forced Landing
- Aircraft Technical**  
Propulsion, Systems
- Regulation/Law**  
Compliance With
- Environment**  
Visibility, Turbulence
- Accident**  
Collision on Ground, Collision with Terrain
- Maintenance**  
Standards/Workmanship
- Situational Awareness**  
In the Air

**Report Topics Have Included:**

- Taildragger Flipped by Gust of Wind
- RTF (Mis)communications
- Non Standard Circuit Joining
- Inadequate Pre-Flight Checks
- Inadvertent Flap Operation

## EDITORIAL

**MAGNETIC COMPASSES**

It has been brought to our attention that a comment made in the GA FEEDBACK No. 27 ('Aerodrome Sense') in respect of the carriage of magnetic compasses for VFR cross country flight might have been misleading.

Whilst the Air Navigation Order does not require the carriage of such equipment for VFR cross country flights, the applicable certification standard for some classes of aircraft does include such a requirement.

## REPORTS

**PRE-FLIGHT CHECKS**

**Report Text:** This incident took place after an uneventful trip to SW England in glorious weather which deteriorated on arrival to rain with a lowering cloud base.

Being anxious to set off for the return trip to my home airfield, I reviewed the short/soft field take-off technique for wet grass 150mm long and prepared for take-off. Another aircraft was waiting behind to escape the weather adding to the pressure.

With a rolling start and stick well back something did not feel right. Acceleration was sluggish and for a moment I considered aborting. Having not predetermined an abort point at this field I pressed on and became acutely aware of the far hedge and onlooking cars. As the airspeed had only just passed 40kts, I pulled hard back and with the stall-warning screaming just came unstuck. With the nose lowered to gain airspeed quickly I cleared the hedge by an uncomfortably small margin and climbed away normally.

**WHAT'S IN THIS ISSUE?**

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**Number of Reports since the Last Issue:**

16

GA FEEDBACK is also available on the **CHIRP** website - [www.chirp.co.uk](http://www.chirp.co.uk)

A General Aviation Safety Newsletter

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

It was only on completing the landing checks on arrival at my home airfield did I realise the handbrake was partially on!

My check list has now been overwritten with an additional vital caution "HANDBRAKE FULLY OFF!"

**CHIRP** Comment: The reporter is extremely fortunate that the error in not releasing the park brake fully did not result in a more serious incident than that described in this report. In addition to highlighting the importance of including items such as the parking hand-brake in a 'Vital Actions' checklist, the incident is a good example of the pressures that can arise from a deterioration in weather conditions, whatever the phase of flight, and the effect of such pressures on human performance.

In the situation that the reporter found himself, a take off from a relatively short grass strip with reasonably long, wet grass, it is most important to apply the appropriate factors to the calculated take off distance to ensure that the take off distance available is sufficient and, if it is, to use the recommended Flight Manual short-field take off technique. It is also important to pre-determine the point on the ground from which you can safely abort the take off in the event of the anticipated performance not being achieved - CAA Safety Sense leaflet No: 7 contains good advice on this subject and is available either in the CAA (SRG) LASORS guide or on the CAA website.

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### A WIRE LESSON

**Report Text:** I was flying with my wife as a passenger in a light helicopter from a private site in Lincolnshire to stay with friends in Wales for the weekend. They had recently moved into a new house which we had not previously visited. I was sent a map showing the house and the 'set-aside' field adjoining their garden that I was to land in. The map had two sets of wires clearly marked, one set to the east of the long, narrow field and one set along their garden boundary to the north. The forecast wind was light northerly and visibility in excess of 10km.

I arrived near my destination looking for the house when I saw my friend in a bright green jacket, waving. I was at this stage in a downwind approach to my landing site, more by good luck than judgment. The field was long narrow with a 3 degree up slope with the house at the top. I decided that since I knew where the wires were, and I had been flying for a couple of hours and so was ready to be on the ground, I would make a low straight in approach without doing the usual low orbit of my landing site.

Mistake! My friend had not marked some wires which were 100M from his boundary crossing right in front of my flight path. My wife and I both noticed them at the same time and only luck allowed me to lift the collective and avoid them. They were thin, green and blended so well into the green background of the hillside.

**CHIRP** Comment: The reporter is to be applauded for his honesty as this report highlights two important points:

The first is that third party descriptions of landing sites should be treated with the utmost caution, even if the third party is another pilot. Unless you have first hand knowledge of a landing site the safe option is to treat it as "unknown" and fly a low level precautionary circuit prior to commencing an approach and landing.

The second is to resist the temptation to succumb to any psychological or physiological pressures to take a shortcut.

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### A LANDING DISTRACTION

**Report Text:** After an uneventful flight in my motor glider the cloud-base started to close in and I elected to land as all the thermal activity had ceased. The wind was approx 15kts from east, so I set-up my RH circuit from an 800ft low point to the easterly runway as usual. I approached at 63kts (55 + ½ wind speed).

At this point I should explain that I have to land my motor glider without the engine running due to the fact that it has petrol lubrication and it is not recommended by the manufacturer to windmill the propeller at high rpm with the throttle closed (eg no lubrication). So it has to be a deadstick landing. No problem for a glider pilot, as they all normally are.

After initially keeping a good level of attention on my approach speed, I was distracted by the sight of first one sheep and later another deciding to cross the runway at the point at which I was likely to touch down. During this time I did not monitor my airspeed closely enough and as a result the windshear component caused the airspeed to fall below the recommended level. Both sheep actually crossed clear of my flight line, so were not in the event a problem, but the reduced airspeed caused a firm if not heavy landing, albeit in this case luckily without any damage.

On reflection I concluded that:

1. Immediately there was a risk of collision with the sheep I should have closed my airbrakes and landed long
2. Remember to aviate first at all times
3. The incident was a reminder that in a 15kt wind with wind-shear, I need to monitor airspeed more closely.

**CHIRP** Comment: In addition to the reporter's excellent analysis, as in the previous report, whenever the circumstances permit, ensure that the landing area and approach is clear before committing yourself to a landing.

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### CIRCUIT JOINING - A REMINDER

**Report Text:** Approaching the airfield in a PA28 in reasonable VMC I descended on the dead-side for a downwind join for the active runway. I noticed a (high

winged) Cessna beginning his take-off roll. Immediately after take-off the Cessna turned crosswind, climbing very quickly. He appeared not to have allowed for drift. I was in his blind spot (his view of me blocked by his wing) so I transmitted again that I was joining downwind and that I had the departing traffic in sight. The Cessna then turned downwind (again without lifting his wing to check on my location).

At this point we were on converging courses at similar heights. In my judgement, normal avoiding action to turn right would have been dangerous, reducing the separation rapidly, and I was unsure whether I could have gone behind the Cessna in the space available; I would certainly have been very close. Therefore, in view of the higher speed of my aircraft I elected to turn to port and increase separation. Having completed this turn I felt too high for a proper approach and so followed the circuit round and did a go-around.

In reviewing this incident, I believe the Cessna was clearly incorrect, both in not following the normal circuit after take-off, in not allowing for drift (which tightened the circuit further) and in turning downwind without checking above the wing. However, I feel I should have anticipated the Cessna's rapid climb and potential for an early downwind turn, and turned to starboard as soon as I saw the Cessna turn crosswind after his take-off.

**CHIRP** Comment: **When joining a visual circuit by whatever method, the Rules of the Air require that the aircraft joining must give priority to aircraft in the circuit pattern.**

If carrying out a standard join by making a descending turn on the dead-side, you should aim to position your aircraft to cross the runway centreline at the upwind end of the runway, prior to commencing the downwind leg; this will assist other aircraft taking off to see you, and you to sequence your join with the other circuit traffic.

If, however, you are approaching the airfield at circuit height, intending to make a downwind join, the most appropriate method is to cross the extended runway centre-line well upwind of the airfield in order to be able to commence a normal downwind leg so as to sequence your join with other circuit traffic, as the Rules of the Air require.

Although, from the reporter's description of the incident, the Cessna's flight path after take off would appear to have not conformed to a standard circuit pattern in relation to the climb into wind and the cross-wind turn, this type of positioning error is not unusual when there is a reasonably strong wind, as would appear to have been the case on this occasion. As the reporter notes, in retrospect it would have been appropriate for him to have turned right when he observed the Cessna turning crosswind and to have positioned behind the Cessna, making an appropriate RTF call that he was doing so.

**CAA Safety Sense leaflet No: 6 contains good advice on this subject and is available either in the CAA (SRG) LASORS guide or on the CAA website.**

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### TAILDRAGGER? WATCH THE WIND!

**Report Text:** Sunny day with 4/8 cloud. AAA ATIS reported 11 Knots, 999 viz with haze. I took off from private strip to fly to BBB (local jolly). Wind picked-up sharply at BBB so decided to go home as soon as possible. Noticed slow groundspeed on return flight; landing was uneventful. Aware of wind, I used into wind aileron and appropriate elevator when turning to backtrack. But gust came and upended aircraft; first onto nose then upside down.

Causes:

1. Inexperience on type. I had no idea that this aircraft was so sensitive to wind in ground handling. An error on my part.
2. An experienced taildragger pilot thought I was pushing my luck but didn't like to say anything.

In short the accident was totally my fault due to my enthusiasm to fly; although I did not consider the weather conditions to be in any way threatening otherwise I wouldn't have gone. Plus a bit of bad luck. Wrong place wrong time.

Lessons:

1. Know your aircrafts limitations (and yours) - you may land nicely into wind but you still have to manoeuvre on the ground
2. If you see someone about to do something inadvisable tell them - better a few ruffled feathers than a broken aeroplane.

**CHIRP** Comment: **The reporter's own conclusions highlight the two key lessons to be learned from this incident.**

**It is important to remember that many tail-wheel aircraft are sensitive to any significant tailwind on the ground, including rudder/elevator control reversals, which can be extremely hazardous if not anticipated. The use of ground handlers should be considered once the aircraft has been brought to a halt - [into wind](#).**

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### WHAT WAS THAT?

**Report Text:** Flying a TB9 (fixed prop; fixed u/c) from AAA to BBB with an ATPL licensed colleague in RH seat. En route at 3,000ft, my colleague, who was map-reading with map on knee, suggested an ADF frequency change. I agreed.

Almost immediately the aircraft reacted as if hit by a gust and I noted a change in engine note and RPM. The engine had been recently changed and I scanned the instruments carefully suspecting an engine problem.

On looking out, I noted that full flap had deployed. The PNF had leaned across to select new ADF frequency and had inadvertently operated the 3-

position flap switch which was hidden under the map. A post-flight inspection revealed no damage. Later TB10s have a guard fitted to prevent inadvertent selection.

Other TB9 pilots might benefit from this incident.

**CHIRP** Comment: We receive a variety of reports concerning inadvertent operation of switches, controls, etc. As in this case, when something appears to be wrong with the operation or handling of an aircraft, investigate the cause by scanning all instruments and controls, as well as looking outside, whilst maintaining control of the aircraft.

This report serves as a good reminder that mishaps can and do occur - even to experienced pilots.

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### FUEL OFF? – PERHAPS NOT

**Report Text:** After flying my Robin DR400 and while parked I turned the fuel selector OFF in order to exercise it and to see how long the engine would run in that condition. The engine ran at power for over 6 minutes, indicating that the fuel OFF selection did not function.

The fuel cock was removed and had a snag that appeared to have been there for some time. This aircraft had been imported and had recently had a C of A issued by a UK maintenance establishment. There appears to be a requirement in LAMS to check the fuel cock and also to clean/examine the fuel filters, which should require the fuel cock to be turned off.

Had the fuel flow not been checked on the ground in this way, this aircraft could have been flying around for a long time with a snag that prevented the fuel flow to the engine from being isolated. Note also that the engine fire drill requires the fuel to be turned off and the throttle opened. Having fuel cocks that do not isolate fuel to the engine is an obvious safety risk.

It is becoming more common not to turn the fuel off as that introduces the risk of taking off with it still turned off, so with this practice becoming more prevalent it also begs the question - how many other light aircraft are operating in a similar condition?

**CHIRP** Comment: This aircraft type would have been originally certificated under a foreign national airworthiness code. The specific requirements in relation to the means to shut off fuel flow to the engine have remained largely unchanged since that time, and would have broadly reflected the wording of the current European requirements that there must be a means to allow appropriate flight crew members to rapidly shut off, in flight, the fuel to each engine individually. The reporter's check would indicate that the aircraft no longer met the original certification criteria.

The current CAA Light Aircraft Maintenance Schedule [LAMS(A)] does not include a requirement to perform a Functional or Operational Check of the fuel shut-off valve, only an Inspection. Therefore, the effectiveness of the shut-off valve might not be

determined by the other maintenance tasks specified in the LAMS and, depending upon the nature of the defect, might not have been apparent by inspection alone.

Therefore, although at the time of the report the aircraft did not meet the original certification standard and, as a result, would have represented a safety hazard in the event of an engine fire/forced landing, it would not be correct to conclude that the required maintenance had not been performed to an appropriate standard.

This matter has been referred to the CAA; in the meantime, owners/operators might wish to consider how they confirm the correct operation of the fuel shut off function and at what interval.

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### SCHEDULED MAINTENANCE - PLAN AHEAD

**Report Text:** I have become concerned that the withdrawal of the licensed engineer's privilege to raise Certificates of Fitness for Flight under "A" conditions is putting undue pressure on owner-pilots to fly aircraft to places of maintenance in weather conditions that are unsuitable for the aircraft, pilot or both.

Under the old system all that was required was for the engineer to inspect the aircraft and be satisfied that it was airworthy to issue a Certificate of Fitness for Flight to enable the aircraft to be flown to a place of maintenance.

Now the CAA have to be involved and the delay in the CAA raising the paperwork, the extra engineering costs in doing this and the CAA fee of £80 are all putting pressure on owners to get the aircraft to the place of maintenance before the check validity runs out.

I consider this a very retrograde step; the extra cost and paperwork add nothing to the flight safety picture from a technical point of view and detract from flight safety in the operation of the aircraft and shows that EASA have very little idea of the consequences of the new regulation.

**CHIRP** Comment: This report provides a timely reminder to owners and operators of their increased responsibilities under EASA regulations. It should be noted that strategic and regulatory reviews of the CAA's responsibilities in relation to the UK General Aviation communities are currently being undertaken. For further information and guidance, aircraft owners' and maintainers' attention is drawn to the CAA's Maintenance Workshops in May and June 2006; details are available at:

[www.caa.co.uk/maintenanceworkshops](http://www.caa.co.uk/maintenanceworkshops) .

ACCIDENT TO REPORT? Call AAIB on 01252 512299
AIRPROX TO REPORT? Call UK Airprox Board on 01895 815121/2/5
OCCURRENCE TO REPORT? Call CAA Safety Investigation & Data Department on 01293 573220