

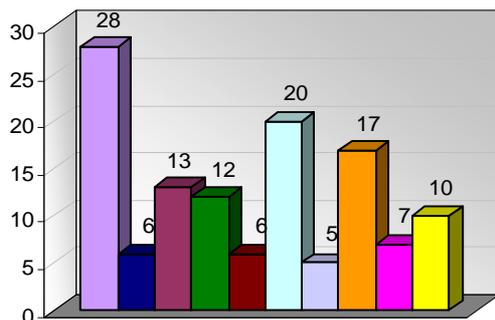
CHIRP FEEDBACK

Issue No: 41

Autumn 2009

Most frequent GA Issues in CHIRP Reports 12 months to 30 June 2009

The chart shows the ten issues most frequently reported:



	Handling/Operation (Lack of Airmanship - 9, Aircraft Handling - 17, Operation of Equipment - 2.)
	Communications - External (Between Pilots and ATC - 6.)
	Situational Awareness (In the Air - 13.)
	Aircraft Technical (Systems - 4, Propulsion - 2, Design - 3, Cabin 2, Performance - 1.)
	Air Traffic Management (Level of Service - 3, Procedures/Separation of Traffic - 3.)
	Individual Error (Inadequate Skills/Knowledge - 8, Aircraft Handling - 1, Lack of Confidence/Experience - 7, Reckless Behaviour - 1, Complacency - 3.)
	Maintenance (Installation Error - 1, Repairing Embodiment - 2, Servicing Error - 2.)
	Procedures (Use by Reporter - 5, Use by Others - 6, Inadequate - 2, Incorrect/Conflicting - 2, Knowledge Of - 2.)
	Regulation/Law (Non - Compliance - 6, Knowledge Of - 1.)
	Near Miss (Air - 7, Ground - 3.)

CHIRP REVIEW - YOUR OPPORTUNITY TO COMMENT

As many readers will be aware, this Programme is sponsored by the Civil Aviation Authority (Safety Regulation Group). Although the Programme is governed by an independent Board of Trustees, the CAA does of course need to be assured that it is cost-effective and for this reason the aviation programmes are subject to an independent review every five years;

the next is scheduled to be conducted in November of this year.

In addition to an objective assessment of the cost effectiveness of the programme by the Review Board, it is important that the programmes are perceived by the relevant user groups as making a positive contribution to flight safety. We are therefore inviting comments from the General Aviation communities.

If you wish to comment please use any of the methods available, the attached report form, submit a comment via our website: www.chirp.co.uk or e-mail us at: confidential@chirp.co.uk.

All comments received by the Review date will be made available to the Review Board.

WEIGHT & BALANCE - A REMINDER

Report Text: It was a summer evening; I was waiting for a friend to come to make a flight with me. My weight is 86 Kg and my friend was around 75 Kg. I prepared my microlight, which is a pusher type with the fuel tank at the rear under the engine. Unfortunately my friend did not arrive.

With two people and a full tank the aircraft works well but when I am alone I always fly with a half full tank to compensate for the empty seat, but this time I went flying with the empty seat and full tank.

After a normal take off, on reaching 1,200 feet for some reason the stick came 'sloshy' (like you have no control) and the aircraft began to pitch nose up. I was very shocked in this 10-second period because I knew that the aircraft at that time was tail heavy and I was losing control and may be going in a stall/spin but fortunately I put the stick fully forward and recovered. The aircraft continued pitching up and down like I was losing control but fortunately I managed to land.

Lessons Learned: Check carefully the weight and balance of your aircraft before going flying.

CHIRP Comment: The microlight type in this report is **not on the UK register and the British Microlight Aircraft Association advises that it is not possible to operate a UK registered microlight outside the fore-aft cg limits providing that the placarded weights are not exceeded. Also, longitudinal stability remains positive at the aft cg limit.**

Notwithstanding the above UK airworthiness requirement, some light aircraft/microlight types exhibit close to neutral longitudinal stability when operating close to the aft cg limit; this means that stick movements required to change the pitch attitude may be very small and stick forces will be very low; the aircraft may also return only slowly to the trimmed state

A General Aviation Safety Newsletter

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

if disturbed. In this condition concentration is required to fly accurately and it is very easy to overcontrol. Additionally, if the engine thrust line is such that a change in thrust causes a significant pitch trim change, thrust adjustments should be made carefully.

R/T DIFFICULTIES - AN UNFORESEEN CONSEQUENCE

Report Text: The flight was from a farm strip near a regional airport on the South coast of England. The plan was to fly to the coast, with a passenger; then to fly west down the coast. I contacted the air traffic controller at ### Approach to inform him of my intentions before I took off. He informed me that he could only hear me at strength 3 but asked me to report once I reached the coast. I thought that the reason for my poor transmission strength and that he couldn't hear me better was because I was too near my hangar.

Once I reached the coast I tried to inform ### Approach of my position. He answered that he couldn't read the transmission and that I should try again. By then both of us in the aircraft were suffering loud interference in our headsets and I realised that I couldn't transmit any message to ATC, so I didn't try. We flew on away from the more congested areas and landed at a local flying club. We turned the volume down on our headsets when we weren't talking to each other while still in the air. Several hours later, we departed and landed back at our home strip. I stopped the engine and put on the headset that my passenger had been using, knowing it was a newer set. I made contact with no interference at all with the ATC. I informed the ATC that we were now back on the ground. He said, "Thank you, but you will be hearing from the police"! I rang the local police and explained to them what our problem was. They thanked me for letting them know. They were glad no one was hurt and that they could close the case.

When I got back home, from the flying field, I found that my neighbours had been upset by the police looking for me. As you can imagine I don't want to repeat this again. The radio in my microlight isn't that reliable, so I have decided not to contact ### Approach any more, but to do as I used to, and just listen out.

What I wondered was, is there a routine that could be used to maintain contact with ATC without asking for a flight information service (sic)? I would like them to know where I am, without the problems that occur when there is a systems failure.

Lessons Learned: I shouldn't have taken off with a possible fault. Radio checks should be made away from buildings.

CHIRP Comment: The air traffic controller acted in an exemplary manner by initiating overdue action on a pilot who had reported that he was proceeding to the coast and had not subsequently contacted ATC, as requested.

The pilot should have notified the ATSU before take off of his intention to land at the flying club or, if the intermediate stop had not been planned, after landing at the flying club. If it had not been possible to make contact by RTF, a telephone call to the ATSU would have been appropriate. If for any reason, it was not possible to contact the ATSU, another option would be to notify the relevant Distress & Diversion cell by telephone on

01489-612406. (D&D contact details are also published in the list of 'Important Telephone Numbers' on Page 28 of GetMet).

With regard to the reporter's query about a 'listening watch' type of service, even if receiving a Basic Service from an ATSU a change of plan should be notified to ATC.

THE RIGHT OR WRONG STUFF?

Report Text: I have to admit that today was a closer call than I would have liked! - ILAFFT!

I took off in my microlight from my home base near the South coast with 2/8th cloud, blue sky and headed toward my destination, a microlight training airfield. Overland the cloud was more than I expected - patchy 4/8ths and now two layers. I was flying between these, crossing the top of a regional airport Zone and listening out on VHF for jet traffic.

The cloud cover increased toward 5/8ths, then a huge hole, then again thickening cloud toward my destination; 10 minutes to the overhead and its 8/8ths! Still, I thought I would press on until overhead as I could hear other Microlights flying circuits at my destination and had been told they were flying when I had phoned beforehand. I contacted the microlight site on the radio and received a weather assessment from an Instructor; it's time to turn back to that hole and the area of patchy 4/8ths cloud, but it's all gone!

Backtracking, it's now 8/8ths and I am starting to get a little touchy; heading South I find my first hole. Descending down and under the cloud, the cloud is on the deck along my intended track but I can see light to the West and I managed to fly around the high ground, which an hour or so before had been clear of cloud, hugging the coast and back home at the cloud base (which was a little over 300 feet); scratching all the way back. I don't know which was worse, the 100mph ground speeds and very rough air, dodging around the high ground or being on top in smooth clean air wondering if I will ever find a break!

Lessons Learned:

1. Be more inquisitive on marginal days, does flying at the airfield you are headed to mean they have 8/8ths?
2. Set a decision point and stick too it? - Weather changes rapidly, don't push your luck!

CHIRP Comment: With the benefit of hindsight it is easy to conclude that, in spite of his considerable flying experience, the reporter made two significant errors of judgement. The first, as noted by the reporter, was electing to continue flying VFR in an aircraft not equipped for IMC operations above an increasing amount of cloud beyond a point from which he could descend safely below the cloud layer. The second was descending below cloud through a 'hole' and flying at an extremely low altitude in poor visibility.

Attempting to fly at low altitude in poor visibility is fraught with danger, even if you are experienced and in an area with which you are familiar; it is frequently the major contributory cause of fatal/serious GA accidents arising from controlled flight into terrain or a loss of control. If radio equipped, consider remaining clear of

cloud and making a PAN call to the Distress and Diversion Cell on 121.5 MHz; it could save your life. Finally, if trapped below cloud in poor visibility consider making a precautionary landing at the first opportunity.

LASER PROBLEMS

Report Text: Flying my hot air balloon at 1,700ft and 6mph southeast of Birmingham, I was repeatedly targeted by a laser light, from an identifiable house.

CHIRP Comment: As a result of a significant increase in the number of incidents of aircraft being illuminated by laser devices (206 cases reported to the CAA in 2008), the CAA has recently issued advice on the action to be taken if targeted by a laser. [FODCOM 05/2009 and GASIL newsletter Issue 6/2009 refer]. Both references contain details of the precautions to be taken if targeted by a laser device and the procedure for reporting such events to permit them to be investigated and where relevant, individuals prosecuted.

LANDING TECHNIQUE

Report Text: I commenced my descent into AAA for the runway in use (LDA - 500m). I joined the circuit LH downwind. Everything appeared to be normal on the final approach; airspeed was good, weather conditions were good with light winds.

The approach was carried out with two stages of flap (20 degrees). As the aircraft touched down I applied the brakes, however, the aircraft continued to roll which resulted in overrunning the runway at a slow speed. The aircraft came to a stop approx 5 - 10 metres in a field beyond the end of the runway. No injuries were sustained by either me or my passenger; the airfield fire crew attended and towed the plane back to the maintenance hangar. An initial inspection was carried out on the undercarriage, which appeared to show no damage.

Lessons learned: Due to the weather conditions, especially with the light winds and short runway, I should have carried out the approach with full flap (short field landing). I should have touched down on the numbers and failing this I should have initiated a go-around.

CHIRP Comment: The LDA was adequate providing the correct technique was used.

Many landing accidents/incidents occur because pilots fail to appreciate that the manufacturer's landing performance is based on flying the recommended technique for the aircraft type at the correct approach speed to achieve a touchdown at the correct point on the runway. If not stable on the final approach, the safe (and sometimes the less expensive) option is to make a go-around and fly a further approach. If you are not confident of being able to land safely in the distance available in the weather conditions pertaining, consider an alternative strip/airfield.

CIRCUIT TRAINING

Report Text: Our airfield is a grass strip in a noise sensitive area. Circuits tend to be flown quite tightly. On the day in question, I joined the circuit at the start of

the downwind leg for R06 right, just as another aircraft called right base R06. I called downwind; I was not visual with the other aircraft. As I approached the base leg turn the preceding aircraft called final for R06. I was still not visual with this aircraft, but assumed it was because he was below me and to my right; a not uncommon situation when flying a right hand circuit from the left hand seat.

I turned onto right base and commenced a descent towards final, at the same time making a position call and looking for the preceding aircraft, which I expected to see on short final. A moment of puzzlement was quickly followed by a moment of panic as I spotted him converging on me from the left on long final, with an impact point at about my turn onto final! I passed over him on full throttle with the stick in my lap and my heart in my mouth.

At the time, the radio was not manned but was monitored by a visitor who said that the pilot involved had called base so far out that he thought he might be landing at a neighbouring airfield by mistake. On speaking to the other pilot, it transpired that he was recently qualified, had been trained at a regional airport and thought that B737 type circuits were the norm. At no time on his approach had he seen me, and due to our relative positions I could not see him until it was almost too late.

Lessons Learned: I have learnt not to assume that a pilot making a position call is where I expect him to be. I have also learnt that flying training undertaken solely at huge licensed airfields can leave a newly qualified pilot at a severe disadvantage when he is let loose into the real world.

CHIRP Comment: It would seem to be appropriate that a course of flying instruction conducted at a regional airport should include briefing and, preferably also training, in circuit flying at smaller airfields.

This report also highlights the importance of ensuring that you do have visual contact with aircraft ahead before commencing the base leg turn and also of making a visual check that the final approach flight path downwind of your position is clear before turning onto the final approach.

FAULTY FUEL STRAINER LEVER

Report Text: Before my flight in a C152 aircraft, the aircraft was 'A' checked, the fuel was visually checked to approx three quarters full, plenty for the planned trip of approx 40 mins, and I embarked on my journey. About 20 mins into the flight the engine failed; a safe landing was carried out in a field, then to my horror I found the aircraft had zero fuel...the cause was a faulty fuel strainer lever; the pull lever had remained in the 'UP' position and all the fuel had drained during flight.

On reflection I realised I would not have noticed this, as a spring automatically closes this lever and, as the weather was windy, plus the A/C was parked on longish grass, it would have been difficult to see or hear any leaks during the remainder of the 'A' checks.

I consider myself very lucky!

CHIRP Comment: A purpose of a pre-flight fuel check is to check that the fuel does not contain significant amounts of water or other contaminants and is the correct type.

This report highlights the importance of positively checking that the valve is closed after sampling fuel from the engine fuel line. Also, it is worth remembering that if this check is carried out with the main fuel cock selected OFF it will allow only a relatively small amount of fuel to flow if the strainer valve fails to close, until the fuel cock is subsequently selected 'ON'; for this reason it is important that the fuel cock(s) is/are selected 'ON' prior to carrying out the check.

Similar care is needed when taking a fuel sample from a wing tank; a problem with a wing tank drain can also lead to the loss of contents in one wing tank or, in the case of aircraft types with interconnected tanks, a complete loss of fuel contents.

AN AIRPROX

Report Text: I took a non-pilot friend for a pleasure flight from AAA to Dunkeswell. The flight to Dunkeswell was uneventful and neither the destination airport nor the en route frequencies were busy. The aircraft is fitted with a transponder that is always set to Mode C in flight.

The return flight to AAA was more remarkable. After departure I established the cruise at about 2,500ft AMSL and routed south overhead Honiton. As soon as the cruise was established I signed off with Dunkeswell Radio and immediately signed on with Exeter Approach. I requested a FIS and passed my details. Whilst I was speaking I looked down at my kneeboard, removed my pencil and prepared to write any information that I was about to be given. Instead of receiving the Regional Pressure Setting and transponder code (as is the norm) I was given 'Traffic 12 o'clock reciprocal heading, same height'. I immediately looked up and saw a Cessna heading directly toward us. I took evasive action turning right. The Cessna also turned right (his right) at exactly the same time and this provided a safe lateral separation. I reported, 'Visual with the traffic' and continued safely back to AAA.

Whilst the weather deteriorated approaching AAA (as is the norm) the conditions in the Honiton area were cloud base above 3,000ft and visibility of considerably more than 10k. At the time of the incident I did not fear for my safety and I responded to the traffic information calmly and promptly. After speaking to my passenger and considering the incident a few days later we reckoned that the approaching Cessna was only about 5 seconds flying time away and the alignment of the two aircraft was such that if neither of us had changed our flight path the Cessna would have probably only just passed over the wing.

Lessons Learned: There appear to be several noteworthy lessons to be learned from this near miss.

1. Talking to someone who can provide you with an ATS can be very useful especially if they have radar.
2. Having a transponder set to mode C helps the controller to help you.....and most importantly,
3. When carrying out tasks that involve having your eyes inside the cockpit, keep the lookout going by

only looking down for a couple of seconds at a time, yes really that short! I was amazed that I went from a position of not seeing any other traffic to being warned about a potential collision risk all within the space of about 15 seconds.

CHIRP Comment: As the reporter notes it is very easy to develop a tendency to fly 'head-down' for significant periods, particularly when using GPS and/or modern GA flight systems; this can increase the risk of a collision. For the case of two aircraft cruising at 90kts, the head on closing distance reduces by one mile every 20secs.

The CAA General Aviation Safety Sense Leaflet No. 13 'Collision Avoidance', contains useful advice on visual scanning techniques and time-sharing between tasks.

Maintaining a good visual scan is paramount, but one further point worth considering is to plan to fly slightly above or below a rounded altitude such as 2,500ft; this might provide an additional safeguard against a conflict with other traffic flying at exactly 2,500ft.

A SIMPLE STANDARD REJOIN?

Report Text: The take off was on the Northwesterly runway (with a R/H circuit) for a local flight for general handling practice.

On returning to the airfield from the North I was notified of a runway change; the Southwesterly runway was now in use with a L/H circuit (the usual direction) and an overhead join preferred (again as usual). I repeated rejoin instructions correctly to the A/G operator, set QFE and commenced my rejoin.

Partly due to explaining the procedure to my passenger, I did not get out the booklet of circuit diagrams, and having crossed the runway centre line I then proceeded to let down - on what I in error thought was the dead side - to the circuit height. I then realised that I had rejoined incorrectly and was turning onto the downwind leg; I made my downwind call promptly, made a quick scan for other aircraft in the circuit (none fortunately), completed my downwind checks as fast as I could and completed a somewhat rushed approach onto the Southwesterly runway.

Lessons Learned: Get airfield data early so I have time to:

1. Set up airfield and r/w diagram in clip, AND have time to digest it before (ideally) starting descent to circuit or overhead height.
2. Don't talk to my passenger after starting descent to airfield.

CHIRP Comment: A change of runway whilst airborne can easily cause the type of orientation error described in this report, irrespective of experience.

This experienced pilot allowed himself to be distracted by his passenger and thus did not follow his normal procedure. Many airlines adopt a standard operating procedure of a 'sterile' flight deck during the descent and approach during which both pilots focus their attention on flying the aircraft and listening/replying to ATC to minimise the opportunity for this type of error.