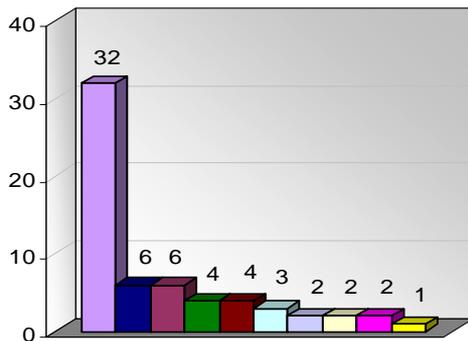


CHIRP FEEDBACK

Issue No: 38

Winter 2008

Most frequent GA Issues Reported
12 months to November 2008



- Handling/Operation**
Airmanship, Handling of A/c, Operation of Equipment
- Communications - External**
With ATC
- Situational Awareness**
In the Air
- Aircraft Technical**
Propulsion, Design, Systems
- Air Traffic Management**
Level of Service, Separation
- Individual Error**
Conflict, Lack of Leadership, Insufficient Team Work
- Airports**
Runways, Bird Control
- Procedures**
Use by Reporter, Use by Others, Adequacy
- Regulation/Law**
Compliance Of, Knowledge Of, Absense Of
- Pressures**
Commercial, Domestic, Time

Number of Reports since the Last Issue: 17

Report Topics Have Included:

- Flight Instrument Failure.
- See and Avoid Technique.
- Aircraft Battery Problems.
- Night Flying- Landing Technique.
- More Runway/Circuit Indiscipline.
- Autopilot - Knowledge and Use.
- Club Hire - Profit vs Safety.
- Contacting London Information.

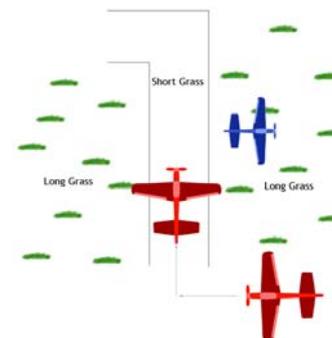
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REPORTS

TAXIING AWARENESS

Report Text: After a request to the tower for permission to taxi to the hold for departure I was proceeding from the main parking area past other aircraft to the taxiway. I was following the tracks in the grass that other aircraft had taken that day and was concentrating on the undulations in the grass. I did not realise how close I was to a parked aircraft in front and to the right. The tip of my starboard wing struck his tail fin. I had room on my portside but was following other aircraft taxiing tracks. I should have noted that the stationary aircraft was parked closer than I realised.



Lesson Learned: My mistake was in concentrating on the undulations of the ground and not scanning the side windows.

CHIRP Comment: It is easy to assume that following a marked taxiway used by other aircraft will ensure adequate clearance from parked aircraft; as this report shows, an all-round lookout scan from wing tip to wing tip is just as important on the ground as it is in the air.

A General Aviation Safety Newsletter

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

RUNWAY AWARENESS

Report Text: Fine weather. Departing AAA for a short flight in a PA28. AAA is unlicensed and the A/G radio was unmanned. I free-called AAA traffic to advise I was about to enter and backtrack for departure. I stopped on the runway threshold for approx 2 minutes to complete power checks. During backtrack I observed a farm track that intersected the runway diagonally.

Available runway was approx 4000 feet and the headwind was approx 10 knots so I opted not to use flaps to shorten take off run. Checked runway clear and began my take off run. A slow moving tractor pulling a trailer appeared on the farm track and did not halt where the track intersects the runway but began to enter the runway from my right. As I was on a collision course with it and had reached 55 knots with no ability to stop in time to avoid a collision, I pulled back on the control yoke, became airborne and narrowly missed the tractor and trailer. I observed the nose of the tractor emerging just below the left window of the aircraft.

Lesson Learned: Runway incursion is one of the unfortunate hazards of unlicensed airfields. I am thankful that the aircraft was lightly loaded with only one person on board and half full fuel tanks such that the aircraft was able to get airborne at an airspeed of just 55 knots and to climb clear of the incursion. The tractor driver may have seen the control tower was unmanned and made the assumption that the airfield was not therefore in use.

There is a need to have a warning sign to advise vehicle drivers that the runway is active and that they should stop and look both ways before entering the runway. I think there was previously a warning sign here which became damaged and was not replaced, as during my backtrack I had observed what appeared to be the remains of a sign post and board at the point of intersection.

CHIRP Comment: With only minor changes in the circumstances this incident could have had a much more serious outcome. The lack of signage was raised with the airfield operator; however, whilst improved signage might be useful in alerting third parties, the report highlights the importance of pilots checking that both the runway and the surrounding area are clear, as far as is possible. Also, be prepared to expect the unexpected, particularly when operating to/from an unlicensed strip such as that in this report.

UNANTICIPATED AIRFIELD OBSTRUCTIONS

Report Text: My instructor and I met at the airfield for a pre-arranged microlight lesson. We started the aircraft and under instruction I taxied down the taxiway, only to find that a steel barrier with about a 20ft gap for vehicles had been erected across the taxiway.

We decided not to see if the wings cleared the barrier, but to u turn on the taxiway and gain entry to the runway by using an alternate taxiway. We joined the main runway and I taxied down the right hand side of the runway, to the down wind end. We were astonished to see men and machines on the threshold of the runway erecting a similar steel barrier across the runway threshold, sealing off the taxiway.

At a recent Club meeting, members were told of industrial developments that were about to take place but not any detailed plans. My concern is that if the Club thinks that these changes need no warning; someone, perhaps a visitor, will hit the runway barrier which is some 10ft from the numbers, is not visible from a normal circuit, and not visible from a normal landing approach. It will be hit by someone landing a little short, or by someone flaring to land on the numbers. I think that a general warning should be placed in the Flying Club, and given to anyone asking prior permission to land.

CHIRP Comment: Several points arise from this report. First, whilst club members who fly regularly can be made aware of the airfield changes, a notice prominently displayed in the clubhouse warning of the new obstructions would be appropriate. Second, this report serves as a useful warning that obstructions may be encountered at unlicensed airfields/strips at or close to the runway threshold. Third, even if an unlicensed airfield/strip is not published as PPR, a telephone call by visiting pilots enquiring whether there is anything that they need to know is an important pre-flight planning consideration; contact telephone numbers are published in the relevant airfield/strip guides.

HUMAN ERROR - SLIPS AND LAPSES

CHIRP Narrative: A fundamental characteristic of human behaviour is that we are all prone to making errors for a variety of reasons, no matter how experienced we are. Standard Operating Procedures and the use of checklists are designed to avoid error or minimise their effect; they can also save you considerable embarrassment and possibly cost:

(1) CHOCKS AWAY OR NAY?

Report Text: The owner and pilot of a three axis, tricycle undercarriage microlight was in the habit of starting the engine without the assistance of another person. To help him in this task, chocks were placed on all three wheels. The chocks were connected together by thin rope, and there was sufficient slack to enable a loop of rope to be placed over the trim lever. This was necessary as once the pilot was strapped in it would have been impossible to reach the rope if it lay on the ground.

The engine was started, the rope was pulled to remove the chocks, taxiing commenced and the aircraft took off as normal. The microlight was not equipped with a radio.

When the pilot landed there was a slight noise from the rear, otherwise all seemed well. However, the CFI, who was stationed by the side of the runway pointed out that if the pilot looked rearwards he would see that the chocks were still attached to the aircraft via the loop over the trim lever. Club members had seen the aircraft taking off with three chocks dangling from the rear, but could not communicate with the pilot.

The noise on landing was one of the wooden chocks hitting the tail boom. There was no damage to the aircraft. Embarrassment damage to the pilot was considerable!

Lessons Learned: Add chock removal to the start up checks. Perhaps consider getting a radio!

CHIRP Comment: **Hand-starting an engine without assistance is potentially hazardous and requires careful thought. If there is no alternative, the use of chocks and park-brake if fitted are essential safety precautions; however, it is equally important to include all pre-flight Vital Actions for your particular aircraft type in your checklist to avoid an embarrassing situation or worse.**

(2) TIME PRESSURE

Report Text: On the day in question an unexpected opportunity arose to take a fellow pilot for a brief flight in my helicopter. While hover taxiing to the take off point the tower called to advise me that fuel appeared to be spilling out of the fuel filler opening. I set down to find the fuel filler cap was off.

There is no doubt that it was my responsibility to ensure the aircraft was fit and ready for flight. However, the chain of events leading up to the incident is worth recounting and I have learnt a lesson regarding my pre-flight preparation. I was aware that my friend had a limited amount of time available and my time was possibly even more time limited due to a family commitment. The aircraft required fuel and I called the refuellers accordingly; they said they would be along shortly.

I carried out my pre-flight checks while waiting. These took about 5 minutes. Some 15-20 minutes later, with no movement in the fuel vehicles visible in the distance, I phoned again; an answering machine cut in. I waited a few more minutes and called again. A fueller answered and said he would be over in 5 minutes. The fueller arrived some minutes later and filled the aircraft. I thought he had replaced the filler cap and I thought that I had checked it. Clearly the latter event at least did not take place. I boarded the aircraft with the passenger and I proceeded with start-up, etc.

Lessons Learned: I cannot stress enough that I was 100% responsible for the incident. However, I have learnt from the incident that preparing within a time-limited window can lead to errors being made by me, especially when that window is shrunk further by influences outside my control.

(3) A COMPLEX TASK; A SIMPLE ERROR

Report Text: The flight was planned as an aerobatic training flight to practice the British Aerobatic Association Intermediate level 'Apprentices' sequence. I was to receive a real-time critique from a trainer, who was on the ground and in two-way radio contact. This was the first time I had flown the sequence with ground critique.

I completed a thorough ground briefing the planned sequence before carrying out a standard pre-flight inspection.

Start-up, taxiing and take off were normal and prior to entering the designated aerobatic 'box' to commence the aerobatic sequence, pre-aerobatic checks were completed. The manoeuvres were relatively new, and although not demanding, did require a good deal of

concentration. The trainer identified a number of points to work on, both in terms of the flying of the manoeuvres and also their positioning in the 'box'. As such, I was working hard mentally.

After about ten minutes of manoeuvres, the trainer requested that I land for a de-brief. I acknowledged this and informed ZZZ that I would do a base leg join. I then heard another aircraft call 'downwind'; I identified this other aircraft and then concentrated on slowing my aircraft down and reducing height rapidly in order to slot in behind it and attain the correct descent profile below gear limiting speed. Approaching the airfield I was focussed on the preceding aircraft which I saw touch down. As I approached the extended centreline, the preceding aircraft seemed to remain on the runway for longer than usual until I realised that it was executing a touch and go and that it was by now airborne again. I then turned onto finals, made a radio call stating my intention to land and then concentrated on getting my speed just right to avoid bouncing on ZZZ's bumpy runway.

I intended to touch down in a slightly main wheels first attitude and held the aeroplane off at low power into ground effect while the aircraft slowed. As I was trying to work out why my 'greaser' of a landing was taking so long the aircraft appeared to stall, the tail-wheel touched down with a bump and pitched the aircraft forward. At this point the propeller struck the ground and began to disintegrate. The aeroplane came to rest just to the right of the centreline after travelling approximately 100 metres on its belly.

My initial reaction was that the undercarriage had failed. I was convinced I had lowered the undercarriage - until I looked at the gear select lever.

Conclusion: The cause of this accident was clearly pilot error. Having carried out a training flight which required mental capacity rather than any great physical demands, I considered the landing a formality. Indeed I was already thinking about the debriefing on the approach. Three minor distractions were enough to cause me to forget the most elementary mnemonic - which is almost too familiar - my downwind checks. Truly pride comes before a fall!

Lessons Learned: I have always read the reports of gear-up landings and thought, rather arrogantly, that it will never happen to me. I do my downwind checks religiously and then my blues/reds/greens on finals - How can anyone who takes their flying seriously forget to put the wheels down!

I was far too relaxed - thought landing a formality and my mind was already in the clubhouse debriefing when I should have been doing the most basic flight checks. It doesn't matter how well-learned a mnemonic may be - if you're not concentrating you'll think you've recited it when you haven't!

CHIRP Comment: **Two frequent causal factors in many incidents similar to those above are: (i) some form of distraction that interrupts a normal routine and (ii) a lack of concentration associated with a routine task.**

It is also important to be particularly vigilant when operating under some form of pressure.

CANCELLED ATC CLEARANCE

Report Text: My wife and I intended to fly from HHH to Southern Europe. I was cleared Special VFR to the Zone boundary not above 1,000' on the QNH, and after a short hold for wake turbulence to clear from the previous twin turboprop departure, I was cleared for take-off.

There was some low cloud in the vicinity of the airfield, but I was not worried as I had heard one of the club instructors telling a colleague that there was a bit of cloud to the south, but it wasn't a problem elsewhere. As I climbed out, I heard the tower tell the following aircraft that the weather had dropped below Special VFR minima and he was to return to the Aero Club parking area.

I was then amazed to hear that my Special VFR clearance was cancelled and I was to return to land immediately. At the time I was levelling at 1,000' in VFR conditions with good surface contact - it briefly crossed my mind to ask if I could continue my flight, but I decided to follow the Tower's instruction. However, as I turned downwind to land I could not avoid flying into a layer of cloud, which appeared to have a base of 400' and tops 1,500-2,000'. I immediately went onto instruments, and advised the tower that I was now IMC and that I was not IMC rated. There was a pause before they asked if I would accept vectors to finals.

I was more than willing to accept any assistance! I was told to turn to a heading of 120 degrees and climb to 2,000'. As I came round to the heading I broke out of cloud. I estimate that I had been in cloud for about 1 to 1½ minutes. I realised that a climb to 2,000' would put me into another layer, so I advised the tower that I would not accept the climb as I was clear of cloud and in sight of a familiar area on the ground - I asked to continue the turn towards finals and spotted the runway below another layer of low cloud. As I came onto my final approach heading the cloud again obscured the runway briefly, but I was able to complete the approach and land successfully.

I consider that I should not have accepted the ATC instruction to return to land as the area in front of me after departure was VMC, with a visibility in excess of 10 miles and I was well clear of cloud and in sight of the surface, even if the airfield was below limits.

Lessons Learned: Accepting the highly unusual cancellation of clearance when airborne and ATC instruction to land immediately, took me from a relatively safe flight into a highly dangerous situation outside my experience. It jeopardised my aircraft, endangered life and frightened my passenger sufficiently that she did not want to continue the flight even when the conditions improved. In the event of a similar cancellation of clearance I would advise ATC that I was not able to comply with their instruction if it jeopardised my flight.

CHIRP Comment: The cancellation of the Special VFR clearance by ATC would have been appropriate if the reporter had been awaiting departure. However, once airborne the instruction to return to land should not have been issued and in the particular circumstances could have led to a much more serious outcome. In this

case it would have been appropriate for ATC to advise the pilot that the weather at the airport had deteriorated below the Special VFR minima and asked what his intentions were.

Many GA pilots would be reluctant to challenge an ATC instruction particularly within Controlled Airspace, but this report serves as a useful reminder to both pilots and ATCOs that the pilot is ultimately responsible for the safety of the aircraft and may elect to decline an ATC instruction, if the circumstances justify such a course of action.

TAIL DRAGGER GROUND HANDLING

Report Text: I fly a PA16 tail-dragger from a farm strip. After about 10 hours on type flying from the strip I felt confident enough to take my daughter for a flight. When we arrived at the field there was a crosswind of 6-8 knots blowing at 90 degrees to the strip. I thought it would be sensible to do a solo circuit to make sure I was comfortable with the crosswind.

I set off on runway 27 with the wind on my right side. I had no problems with the circuit and returned to pick up my daughter. Since I was at the 09 end of the runway I decided to take off in the opposite direction. We accelerated down the runway, as I lifted the tail at about 40 knots the plane took a sharp left turn and nearly entered a crop of elephant grass; fortunately, I regained control, and the take off continued uneventfully.

There are various forces at work in tail-draggers as the tail is lifted; in the Lycoming powered PA16 these forces all conspire to make the plane turn left as the tail rises (some engines rotate the other way and therefore turn right).

On my first take off the cross-wind was from the right and effectively cancelled out these forces. On the reciprocal course the cross-wind was trying to weather cock the plane to the left and this added to the natural tendency of the plane to turn left, resulted in a loss of control.

I don't think this difference was pointed out to me during my general training or tail-dragger conversion and I have not read about it in any of the books I read about tail-draggers. The implication is that the crosswind tolerance at takeoff is quite different depending whether the wind is from the left or the right. I certainly avoid left cross winds if at all possible now. I have also purchased a simple hand held anemometer, which takes some of the guesswork out of the decision to fly or not to fly.

CHIRP Comment: Tail-wheel aircraft have a number of handling characteristics that are significantly different from nose-wheel types; one of these is their directional stability when on the ground, particularly in cross wind conditions. It is most important to obtain appropriate training in the handling characteristics of the particular tail-wheel type that you fly; this should include cross wind take off and landing technique.

ACCIDENT TO REPORT?
Call AAIB on 01252 512299