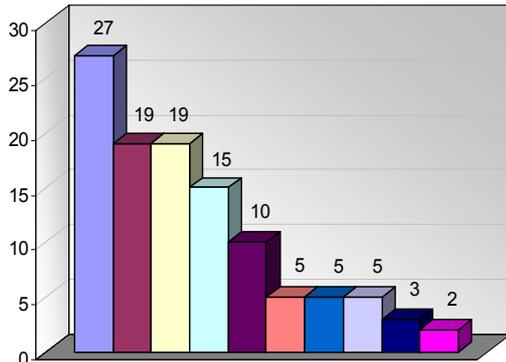


CHIRP FEEDBACK

Issue No: 26

Autumn 2005

Most frequent GA Issues Reported
November 2004 - October 2005



- Handling/Operation**
Near Miss, Handling of A/c, Airmanship
- Communications - External**
With ATC, With CAA, With Emergency Services
- Procedures**
Use by Reporter, Use by Others, Adequacy
- Aircraft Technical**
Propulsion, Systems, Airworthiness
- Regulation/Law**
Compliance With, Knowledge Of
- Environment**
Visibility, Turbulence, EMI/HIRTA
- Maintenance**
Standards/Workmanship, Modifications/Repairs
- Situational Awareness**
In the Air, On the Ground
- Documentation**
Availability, Currency/Validity, Suitability/Adequacy
- Training**
Adequacy, Examination/Assessment

Number of Reports since the Last Issue:

17

Report Topics Have Included:

- Fuel Starvation due Inappropriate Manoeuvre
- Air Proximity Events
- Flying in Fog
- Aircraft Identification
- "Remove Before Flight" Ribbon Visible
- Engine Failures - Explained and Unexplained

REPORTS

DON'T ASSUME - CHECK

Report Text: Preparing to take off from a military aerodrome that is also available for civil use to fly to a neighbouring aerodrome to the east.

The surface wind was not significant therefore requested an easterly runway for ease of departure although the westerly runway was promulgated on the ATIS. A formation of two military aircraft was also taxiing. I had two passengers on board, one a CPL the other a PPL; both were talkative.

Whilst holding prior to departure, I thought I heard a T/O clearance for us, but guessed it might not have been and continued to hold position. It was in fact T/O clearance for the reciprocal runway military traffic.

CHIRP Comment: Misheard ATC instructions are a significant factor in runway incursion incidents; therefore, passengers should be briefed on the importance of not interrupting ATC messages.

Also, military airfields operate on both UHF and VHF frequencies; if you don't hear a response to an ATC instruction on VHF, don't assume that it must have been for you - hold your position and confirm with ATC.

STANDBY – BUT FOR HOW LONG?

Report Text: I recently had occasion to fly through the AAA MATZ, crossing the stub at ###. I called BBB (the ATSU controlling MATZ crossings) approximately 10 minutes before the zone boundary, requested MATZ

WHAT'S IN THIS ISSUE?

	Page
Contacting CHIRP	Bottom of this Page
Don't Assume - Check.....	1
Standby - But For How Long?	2
Unintended Incursion	2
Poor Airmanship.....	2
Turbulence Encounter	3
Water, Water, Everywhere	3
A Salutory Met Lesson!.....	4

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A General Aviation Safety Newsletter

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

penetration and received a squawk. With approximately 3 minutes to run to the zone boundary I was notified of my position, but given no clearance. I asked "do I have clearance" and was told to "stand by". As I approached the zone boundary, again I requested clearance and again was told to "stand by". Though not required by law to avoid the stub, as I had asked for a clearance and not received one, I elected to fly around the zone. Once on the other side, I called BBB and made it clear that I was still "standing by" and in the meantime had flown all around the perimeter of the zone. Whilst listening, I heard another pilot who was also obviously disgruntled at not receiving a clearance.

Once back on the ground I telephoned the watch manager who had been on duty. I asked if I had made any type of mistake that had caused him not to give me the requested clearance. He was very polite, told me that I had not made a mistake, said that he had seen me skirt his zone, obviously remembered my final call, but that he had "handled around 1000 calls" in the two hour watch period and was "too busy" to give a clearance. When I said that I had not wished to enter his zone without clearance and would like to know what to do in future, he said "contact me and squawk as instructed, then cross the zone (with no clearance) and I will let you know if there is anything big about to hit you, in any event don't transit my ATZ".

Having subsequently discussed this scenario with another senior Air Traffic Officer, he said that under the circumstances the only possible instruction to give is "stand by". Clearly the situation is unsatisfactory and needs sorting out, but in the mean time, it appears that in this situation, "stand by" should be interpreted as "continue at your own discretion", perhaps CAP 413 should explain this.

CHIRP Comment: The reporter complied with the recommendation that pilots request clearance to penetrate a MATZ when at least 15nm or five minutes flying time from the boundary.

The ATC instruction "Standby" means "Wait, I will call you"; no clearance should be assumed (CAP413 Chapter 2, Paragraph 1.6, refers).

As the reporter notes, pilots are permitted to penetrate a MATZ without clearance, providing this does not violate the ATZ in the centre of the MATZ (AIP ENR 2.2 Para. 1.3); in such a case it is good airmanship to state clearly to the ATSU controlling the MATZ in a timely manner of your intention to proceed.

The views of CAA and MOD on the adequacy of the present procedure are being sought.

UNINTENDED INCURSION

Report Text: During a cross country flight at 2,000 ft returning to my home airfield, I contacted AAA Approach for a FIS. Subsequently, I transferred to

BBB to request MATZ clearance across CCC, an adjacent military airfield.

I chose this option rather than divert around the MATZ as heavy traffic was reported in the vicinity of the MATZ boundary. BBB ATC approved the MATZ clearance, "Outside Controlled Airspace and avoiding CCC ATZ".

10 nm before CCC, I requested a climb to 3,000ft to pass above CCC ATZ; this was approved by BBB ATC.

Once well clear of the CCC MATZ, I requested frequency change to DDD; this was approved by CCC ATC and I commenced descent to 2,000ft

Later, on reviewing my flight log, I realised that descent to 2,000ft should have been made immediately after passing CCC ATZ as my routing at 3,000ft put the aircraft inside Class A airspace.

It would have been useful if BBB ATC had reminded me of the altitude of the base of the Controlled Airspace.

CHIRP Comment: It should be remembered that some ATSUs can be extremely busy providing Radar Advisory and Radar Information Services to aircraft in the local area, and thus will have little spare capacity for aircraft operating under a Flight Information Service (FIS), as was this reporter.

It is important to understand that when operating under a FIS, a controller does not provide any form of radar service and is under no obligation to monitor the flight; thus the controller probably would not have been aware of the aircraft's position in relation to Class A airspace. When receiving an FIS the pilot remains responsible for positioning and separation from all other aircraft.

Also, the reporter refers several times to his "requests" being "approved by CCC ATC". When receiving an FIS in Class G airspace, ATC will not approve changes in heading and altitude. What the reporter took to be "Approved" was most probably the controller merely acknowledging the RTF call to climb/descend.

POOR AIRMANSHIP

Report Text: I was downwind, number three behind a motor glider and a light aircraft. The runway was ## right-hand, my circuit height was 600 feet QFE. The airfield radio was unmanned so calls were made to AAA Traffic.

A Quickie aircraft announced he was joining from the east right base with two seen ahead. Number one, the motor glider, landed and took off. Number two turned and called final, I turned and with the Quickie in sight called right base.

The Quickie joined a wider right base and continued to follow the light aircraft. I called going around when it was obvious that the Quickie was intending to cut between my aircraft and the light aircraft and that it would not land and clear in time for me continue safely. The light aircraft landed with the Quickie less

than 200 metres behind and closing fast. The light aircraft had not cleared the runway before the Quickie began to go around when less than 100 metres separation. The go around was flown slightly above and slightly to the right of the taxiing aircraft. The light aircraft cleared and I was able to enter a descent and land.

The Quickie pilot chose to join the circuit in a manner which did not allow him to fit in with all the other aircraft already established in the circuit. Announcing his arrival and expecting other aircraft to simply disappear or get out of his way shows a complete lack of judgement and very poor airmanship. Not going around until so close to an aircraft on the runway led to a distinct risk of collision.

Going around almost directly over the top of the other aircraft was dangerous because of the possibility of the other aircraft actually taking off underneath.

CHIRP Comment: As we have emphasised several times before, it is the responsibility of the pilot joining the visual circuit by whatever method to ensure that he/she remains clear of any other aircraft already in the standard visual circuit.

It is particularly important in the case of mixed circuits, where significant speed differentials may exist between types, to ensure that adequate separation from other traffic is maintained to avoid the type of situation described in this report.

CAA Safety Sense leaflet No.6d - Aerodrome Sense contains additional useful advice

TURBULENCE ENCOUNTER

Report Text: The glider tug was being put away on account of the strengthening westerly wind when I departed AAA in my Luscombe for home - only half an hour away. I do not recall what the wind strength was but remember reassuring myself that it was straight down runway ## at my home airfield. My route took me close to the lee of the Cheviot Hills. I had just trimmed the aircraft in the rough conditions when there was a sudden loud bang shaking us violently. My passenger and I both hit the roof, and I banged my knee painfully against the control panel. Whilst recovering my composure more rotor turbulence hit us just as violently. Quickly checking that the airframe and engine were ok, I became aware that I could no longer reach the pedals and the control column was in a strange position. I briefly wondered if everything had been bent by my impacting the controls before realising that my seat cushion had jumped out of its pan and I was sitting too low and too far back. Fortunately we could both reach the control column, so after checking the airspeed I asked my passenger to hold it steady while I used both hands to lift myself up and replace the cushion. Regaining control I did the same for my passenger. We headed away to the coast tightening our straps as we went

Four lessons I think; three regarding airmanship and one regarding seat cushions.

1. Electing to fly was probably unwise when glider operations were terminating due to bad weather.
2. The lee of hills should be avoided in strong turbulent wind conditions.
3. Straps need to be tight
4. Seat cushions should not be able to jump out. In the Luscombe aircraft they are loose as they have to be moved forwards in order to gain access to the baggage area behind the back rest which hinges down. A modification is being considered.

CHIRP Comment: As the reporter notes, the local club having abandoned flying was a good indication that the weather might be unsuitable.

When the gradient wind is greater than 15 knots, moderate to severe turbulence and significant downdraughts can be expected to occur downwind of hilly terrain or local features such as large buildings/trees; flights should be planned to avoid such conditions.

Aeronautical Information Circular No. 6/2003 (Pink 48) contains excellent advice on this topic

WATER, WATER, EVERYWHERE!

Report Text: During a pre-flight check on a Cessna 150, a substantial amount of water was drained from the gascolator fuel drain. A flight of about 40 minutes was made to another airfield and before the return trip the fuel drains were once again checked with similar results. A call was made to the certifying engineer who suggested lowering the aircraft's tail to the ground and taking samples from the wing tank drains. The port wing tank contained enough water to necessitate approximately 20 samples of a standard fuel strainer before a neat fuel sample was subsequently taken.

The aircraft is normally parked outside and this was towards the end of the season. I feel that if the wing water drain sumps are inadequately placed within the fuel tanks, this method of checking should be made more widely known.

I hope this will be of use to others.

CHIRP Comment: Water ingress can occur for a number of reasons and it would appear that some aircraft types suffer from this problem to a greater extent than others. One way to reduce the risk of water ingress is to replace filler cap seals on a regular basis to ensure adequate sealing of the tanks.

As regards the method described in this report, we are not able to comment on its effectiveness on this or any other type; however, our enquiries have revealed there is more than one such "procedure" for assisting in the complete drainage of water from the wing fuel tanks of some C150/152 aircraft.

Owners/operators of these types should be aware of Cessna Single Engine Service Bulletins 92-25 and 92-26 issued in September 1992, relating to the installation of additional fuel drains in the wing fuel tanks.

A SALUTARY MET LESSON

Report Text: I was attending a balloon rally in an area I had not previously flown. The take off site was the square in the centre of a town. Driving into the town around dawn I was aware of a small amount of radiation mist over streams and in a park.

The met briefing for the flight gave the gradient wind speed (10kts) / direction, the QNH and the current surface wind at a major airport 15NM upwind of the launch site (3 to 4kt). I planned to fly for up to an hour but carried fuel for more than 3 hours. The forecast wind direction was into open airspace with a ceiling of 2,500ft. During my inflation/preparation I observed several balloons take off and noted that there was haze/mist as they climbed. I discussed this with other pilots and we concluded that it was radiation mist and 'would burn off in half an hour' with the sun's heat.

On take off I climbed steadily out of the square to clear the buildings and, as I had a tall church spire ahead I continued to climb and found I was in the haze. I broke out of the 'haze' at 1,200ft with 100% cloud cover below and clear above.

I decided to continue in the clear air above the mist, knowing that the outskirts of the town were well provided with large electricity pylons.

I discussed the situation with the pilot of another balloon which had taken off just after me and, having plenty of fuel, decided to 'sit it out' and wait for the mist to burn off. Later, after I had heard the noise of a busy road, the cloud was becoming less stratified. I descended into several 'gullies' between clouds to determine the height of the cloud and hope that I would see the ground. I found that the top of the cloud here was still 450ft.

Using the forecast wind speed, the clue from the road noise and a 1:100,000 map, I deduced I was over open countryside and approaching the coast and so started a gentle descent. This is not easy with no external frame of reference and with only a barometric altimeter (which I kept tapping).

Below 100ft indicated, the sound of a cockerel crowing was quickly followed by the sight of a barn roof. Fortunately my rate of descent was such that I could round out and I landed safely in a field of cut stubble behind the barn. My altimeter read zero feet on landing.

I estimated the visibility on the ground to be 80 to 100yds horizontally with the tops of poplar trees in the mist. I had seen the ground for about the first minute and the last 10 seconds of a 1 hour 25 minute flight

and landed about 4 NM from a tidal estuary on a track that would have taken me out to sea.

My average speed was 12kt. My retrieve driver reported road conditions of 50yds visibility in places. This poor visibility continued until after lunchtime. Two other balloons landed closer to the estuary than me.

Lessons learned?

- Always query a met briefing for missing details (in this case, forecast visibility).
- Be pessimistic, if in any doubt don't fly.
- A vario or more modern altimeter could have helped my descent.
- Even if I had had a GPS I still would not know what was inside the clouds - other aircraft, pylons, trees, wind turbines, roads etc but I would have known where I was in relation to towns, canals and the coast.

What I did wrong?

- Wrongly interpreted clues (radiation mist).
- Relied on the rally organiser's incomplete met briefing.
- Flew without sight of ground.
- Did not make PAN call.

What I did right?

- Calmly assessed situation once it arose.
- Concentrated on flying the aircraft.
- Discussed situation with another pilot.
- Did not alarm passengers - used them as additional eyes and ears.

How did I survive?

- 95% was luck.

CHIRP Comment: With the benefit of hindsight, the weather conditions that the reporter describes were such that they should have prompted the thought that the radiation fog might be stirred up by mechanical turbulence after dawn and thus persist, as indeed happened.

At some time during our flying career, we are likely to get ourselves into a situation that is outside of our previous experience, sometimes, as perhaps in this case, prompted by peer pressure. If you find yourself in such a situation, it is vital to remain calm, logically review the options available, make a plan and then concentrate on executing it as well as possible.

Although luck did play a part in the successful outcome to this incident, the reporter undoubtedly contributed to the outcome by what he did right to recover the situation.

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