

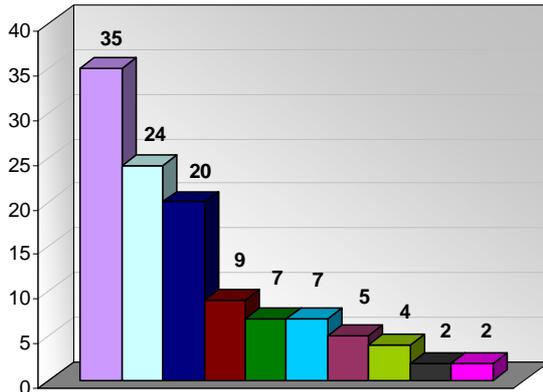
CHIRP FEEDBACK

Issue No: 44

Summer 2010

Most Frequent GA Issues Raised 12 Months Ending 31 March 2010

The Chart Shows the Ten Issues Most Frequently Reported:



- Handling/Operation**
Airmanship, Handling of A/C, Operation of Equipment
- Individual Error**
Lack of Experience, Overload, Inadequate Knowledge/Skills
- Communications - External**
With ATC
- Air Traffic Management**
Level of Service, Separation
- Aircraft Technical**
Propulsion, Design, Systems, Cockpit Equipment
- Near Miss**
Airprox
- Situational Awareness**
In the Air
- Maintenance**
Servicing Error, Standards of Workmanship
- Others/Undefined**
Personal/Domestic
- Regulation/Law**
Compliance Of, Knowledge Of

CHANGES TO DECLARATION OF FLIGHT MANUAL SERVICE (DFMS)
 AIRCOM 2010/02 issued in January 2010, provided details of changes to DFMS offered by the CAA through the G-INFO website. The Authority had proposed withdrawing DFMS, however, after considering comments from CHIRP and others, the CAA has decided to continue to make available CAA Change Sheets and Supplements via <http://www.caa.co.uk/ginfo>, or by contacting Applications and Approvals on email a&a@caa.co.uk.
 Further details are available in the AIRCOM mentioned above and from FAQs found on the CAA website www.caa.co.uk/FlightManuals. Users who already use this service should see no difference in the level of information provided as a result of the changes.

REDUCED VISIBILITY

Report Text: The flight was to be a local night flight. There were 2 POB, myself as Pilot in Command and a passenger (a holder of a Commercial Pilots Licence), who had expressed a wish to join me for the flight as I would be giving him a lift home afterwards from the flying club.

The aircraft had recently returned from a maintenance check and had been taxied to the flying club approximately one hour before this flight.

After all initial, taxi and power checks had been performed, we were cleared to take off. All systems were indicating correctly and the aircraft's FADEC showed all temperatures and pressures at optimal levels during the take off run and initial climb out. Flaps were retracted and the climb progressed normally until at approximately 500ft what appeared to be light precipitation appeared on the windshield. Continuing the climb we were initially baffled as to where this precipitation, albeit light, was coming from, as there were no obvious sources or visible precipitation to either side. At approximately 800 ft. we realised that the liquid on the windshield was not flowing off as expected but was thickening and distorting the appearance of lights through the screen.

At this point we concluded that oil, coolant or diesel was leaking, although all systems still indicated correctly. A request was made to continue downwind to land, which ATC granted immediately. Whilst proceeding downwind the vision out of my window (P1 - left seat) was compromised below a level that would be safe to continue a visual circuit to land, I therefore passed control to my passenger (right seat) to continue the circuit and approach as his vision was significantly clearer. We landed without incident, but had more time elapsed (i.e. had the problem developed further away from the airfield) it is most likely a visual approach would not have been possible and a diversion to an airfield offering an approach director with talkdown would have been necessary.

Lessons Learned: As surplus lubricant, oil, etc., (contained around the engine and joints in areas not accessible or visible) may not be detected during a pre-flight inspection, it is essential that maintenance organisations take care to ensure excessive amounts are not applied. This is the second such incident I have been aware of but the first that I have been directly involved.

It is also important that pilots are aware of the effects of such fluids on forward visibility and the rapid rate at

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

which forward vision can degrade so that the problem can be diagnosed before it develops to the point that a visual landing might not be possible.

CHIRP Comment: The reporter coped well with a difficult situation and exercised good crew resource management (CRM) in electing to hand control to the other pilot.

The incident serves as a reminder that it is preferable to conduct a post-maintenance flight during daylight, particularly if flying solo.

CLOSE ENCOUNTERS

Mid-air collisions in UK airspace are relatively rare; however, they do occur. The following incidents offer food for thought in reducing the risk of being involved in a collision.

(1)

Report Text: When en route to Bodmin at FL40 Hdg 240° in intermittent IMC, with 8/8ths cover 300ft below and receiving a Traffic Service from XXX, the controller advised us of traffic crossing right to left also at FL40; no further information or range was given. As we have a Traffic Alert system I saw a contact and started to climb; on reaching FL44 this aircraft passed - approx 300ft below, my passenger saw it and thought it was a Cessna 152.

I believe the controller should have told the other aircraft that he was not flying by the quadrantal rules (FL35 or FL55) and should be doing so in IFR conditions, also that collision avoidance should have been passed to one or both of us. I understand this is not part of the 'Traffic Service' but when a contact is so close the controller should do his/her best to avoid a close encounter.

In the last 20 years of flying with Radar Information I really cannot remember a controller not passing information when he/she could see the problem on radar when two aircraft would be that close. In the past I have heard controllers advising aircraft they are not using the quadrantal rule and should be if flying under IFR or in IMC, if they are not using the rule and the controller is aware of this, then collision avoidance must be up to the controller.

CHIRP Comment: The reporter assumed that the other aircraft was in RT contact with the same ATC unit but this would not necessarily have been the case, as the controller could have issued the traffic information based solely on transponder data. Also, it was possible that the crossing aircraft was also flying at the correct quadrantal altitude.

When in receipt of a Traffic Service, no deconfliction advice is passed; the responsibility for taking avoiding action remains with the pilot. In the situation described above, notwithstanding the fact that the flight was being conducted under IFR, according to the Rules of the Air [Rule 17(2)] the reporter should have taken positive avoiding action to remain clear of the crossing aircraft. One other point worth remembering is that, except for aircraft fitted with a full Traffic Alert and Collision Avoidance System (TCAS) with Resolution Advisory guidance that provides adequate vertical separation, an

aircraft giving way is not permitted to fly directly over/under the other aircraft [Rule 17(1)(d)].

(2)

Report Text: Prior to departing from AAA (Essex) I filed an IFR flight plan at FL100 hoping to route towards HON then out of CAS to my destination BBB (North Wales).

We were given radar headings, I presume due to traffic, firstly to the north then to the west and then to the south west taking us towards CPT; the wrong direction for our destination. I complained that we were not going in the correct direction for our destination and south of Brize Norton we were told, "Own navigation to BBB" which was over 100 nm from this point out of Controlled Airspace. Further we were told to squawk 7000 and transferred to London Info for an IFR flight with an offer from them of a Basic Service. Brize Norton was closed so no Traffic Service was possible from them.

We were just on top at FL100 of a solid overcast. The cloud base in the vicinity of BBB was around 2,000 feet with layers in between. With around 30 miles to run I told London Info that we were commencing descent and was given the Barnsley pressure setting. Our track took us to the south of a gliding site, which I know well. (I never descend below 6,000 feet until past the gliding site).

We were 8 miles from our destination in the descent and in solid IMC when a glider passed within 50 metres also in solid IMC. There was a high risk of a collision. We were on the BBB Frequency and the glider pilot came onto that frequency to state that he had also seen us in the clouds.

CHIRP Comment: Although this incident involved a glider, there is an increased risk of a collision with any other aircraft when electing to climb/descend in cloud without the availability of a Deconfliction or a Traffic Service. In situations where such a service is not available, consider amending your IFR routing to avoid/minimise climbing or descending in IMC.

When operating in IMC in areas/weather conditions that are conducive to thermalling or wave soaring, it should be anticipated that gliders might be engaged in cloud flying even some considerable distance from a gliding site. When operating in cloud, the British Gliding Association recommends that glider pilots broadcast their position/height on 130.4MHz; listening out on this frequency might be beneficial.

In relation to the routing change, when IFR flight plans are entered on the NATS computer the routing may sometimes be optimised for traffic flow reasons. If you are issued with a re-routing and wish to revert to your planned routing, request the change with ATC.

(3)

Report Text: I was piloting a single-seater Standard class glider. Weather was bright, with low sun, calm air; some stratus was forming at 2,500' a few miles west of my position. I had checked my radio before takeoff, and had heard other routine communications from gliders but did not hear any transmissions from any other traffic.

I was towed by a tug aircraft to 3,500' and to a position some 5 nautical miles NW of the airfield. Soon after releasing the tow, I commenced a series of gentle turns to assess the prevailing conditions. Shortly afterwards, I performed a brisk S-turn from 30° bank starboard to 30° bank port, straightening up on a southerly heading at a steady speed of 45kts. My altitude was 3,200' with a sink rate of 1kt. On this heading, the sun was about 30° to my starboard, and the hills ahead appeared in silhouette.

About a minute later, I saw a helicopter pass in front of me, about 50 feet below and perhaps 500 yards (and certainly less than 1,000 yards) distant. I did not see the helicopter until it had crossed my line of flight and was clearly visible to my port side and well illuminated by the sun. I made a turn to port in order to observe the helicopter as it continued its course, but took no other action. The helicopter did not transmit on the local frequency, and may have been on another frequency at the time. The helicopter was steering a straight course NE, and did not change altitude or heading while I still had visual contact.

The helicopter was a small type, with a prominent tall pylon and slim skids - possibly a Robinson R44 or similar. It was black (or nearly so) in colour, but I could not read its registration as I soon had a tail view. I did not see any strobe or navigation lights.

On landing some 20 minutes later, I learned that no other glider pilots, either in the air or on the airfield, had been aware of the helicopter.

Lessons:

1. There is always a risk to gliders encountering transiting GA traffic at relatively low altitude. In some areas (Wales and Scotland) this probably means at between 2,500' and 5,000' altitude, depending on route and local terrain. The risk probably diminishes above this height.
2. There is a converse risk of GA traffic encountering gliders anywhere in Class D, F and G airspace, with a higher risk within 5 miles or so of a gliding field.
3. A good lookout scan is vital. However, when flying in bright low sun, it is almost impossible to see other traffic beneath the visible horizon and in arc of perhaps 30° into sun. Even brightly-coloured aircraft with strobe lights may not be visible.
4. I had performed manoeuvres in a white, 15 metre span aircraft shortly before the incident, which should have been clearly visible from the helicopter (assuming that it had not changed course abruptly only moments earlier).

Suggestion: A short courtesy call on the airfield FIS/Air-Ground frequency by transiting pilots will alert local traffic, and would permit individual pilots to respond with their height and position should there be a possible confliction.

CHIRP Comment: This report highlights the importance of maintaining a good visual scan pattern and the difficulty in sighting relatively small targets in some light conditions. (The frontal area of many gliders is in the order of 1 square metre).

Also, many gliders are white to minimise UV absorption. Although white and light coloured aircraft are

conspicuous against a dark background, conspicuity trials conducted by the Royal Air Force showed that these colours are less conspicuous than dark colours when viewed against a light background or in bright ambient light conditions similar to those described in this report. It is for this reason that police, helimed and military training aircraft/helicopters are painted in dark colours. It should also be noted that the same trials showed that strobe lights were only marginally effective in bright conditions similar to those described.

(4)

Report Text: I was approaching the circuit at CCC, and was instructed to follow a Robin which was also approaching to join the RH circuit for the active runway. The Robin was visual, some distance to my right and slightly ahead, and I continued my approach, monitoring the Robin so that I could join the downwind leg behind him.

As I approached crosswind (upwind end of the runway), ATC asked me to report my height, stating that I looked a little low. I checked my altimeter, which showed 1,000ft on the correct QFE setting, as required. I reported this to ATC and continued my approach. However, I did notice that the Robin had looked slightly higher than me.

When I looked out again I had lost visual contact with the Robin and was concentrating on regaining visual contact. I crossed over the upwind end of the runway, and heard ATC ask a business jet, which was taking off from the same runway, if he was "visual with the Cessna". I looked out of my right hand window and saw the jet climbing rapidly towards me (having drifted to his right of the runway). The jet pilot shouted "Whoaa!" and banked to his left to avoid me. There is little I could have done by way of avoiding action, except push full throttle, which I did for a moment or two until it was clear that the jet would pass behind. I estimate our separation was less than 500ft both vertically and horizontally.

It is not clear to me how this happened. I was approaching the circuit at the correct height and in a standard manner, and trying to maintain visual contact with the traffic which I had been instructed to follow. ATC was clearly aware of my position, as they asked me to check my height. The jet appeared to be climbing very rapidly, but I do not know if this is standard or if he was climbing more steeply than normal. The jet had drifted to his right, slightly, but I do not think that was a major factor.

Clearly this was too close for comfort.

Lessons Learned: I had been cleared for the published joining procedure to the circuit whilst maintaining visual contact with the Robin, intending to position behind him on the downwind leg. This I have done many times before in similar situations. ATC must have been visual with my aircraft, as they asked me to report my height, so they clearly knew exactly where I was. I would like to know what might have been done differently in order to avoid this incident.

CHIRP Comment: We advised the reporter, who was not at fault, that the incident as reported was a reportable Airprox incident and should be reported to

the UK Airprox Board to permit the cause to be investigated.

The local visual circuit procedures at the airfield concerned require that aircraft taking off remain at or below 500ft until crossing the departure end of the runway in use, whereas the noise abatement procedure for a Standard Instrument Departure requires departing aircraft to make a 10° right turn as soon as practical after take off. Although ATC had sought confirmation that the pilot of the departing business jet had visual contact with the reporter's aircraft crossing at 1,000ft QFE, the report suggests that this was not the case.

LONDON INFORMATION

Report Text: I was returning from Southern Ireland to my base in Southwest England in perfect weather (no cloud) at FL55 in a C182 (2 P.O.B). About 2 miles ahead, at a lower altitude was another aircraft at similar speed. Approaching Slany, Shannon handed us both over to London Information. It soon became apparent that they were busy; however, there were gaps in the RT. The leading aircraft made his call but was told to wait. A few minutes later, in a gap, he made a call, but was told to stop cutting across other RT. On the third occasion, the London Information Officer was quite 'blunt' in telling him to stop cutting across other RT.

It was quite clear that whilst London Information can receive transmissions from the Irish Sea, aircraft over the Irish Sea cannot receive transmissions from other aircraft over Southern England. This seems a very unsatisfactory state of affairs and can only cause problems; for my own part, I was so intimidated by what I had heard, that I did not attempt to make a call, but kept a listening watch, and then spoke to Cardiff for a service when about 50 miles range.

On this occasion, conditions were benign. I am concerned that the area covered by a single London Information officer is too great and the failure of the London Information Officer to appreciate this problem coupled with different traffic/weather conditions might have led to a safety issue.

Lessons Learned: If London Information sound slightly busy, then they may in fact be very busy because I can't hear much of the RT - use another service.

CHIRP Comment: NATS was invited to comment and provided the following response:

The DOC (Designated Operational Coverage) of the 3 FIS frequencies encompasses the whole London FIR. Topography and the low level operating heights of the majority of GA aircraft can, in some areas, cause reception issues which would likely preclude a low level aircraft in the west hearing the transmission of a low level aircraft in the east. The only way to resolve this would be to augment the entire UK FIR (*including sea areas*) with repeater Tx/Rx masts on the FIS frequencies.

As the reporter notes, the leading aircraft's call was acknowledged and he was requested to standby. The pilot had not declared an emergency (which would have elicited priority attention) and therefore would have to wait his turn in the normal order of service provision. The FISO will get back to the aircraft in due course, but unless the pilot requires immediate assistance, once his call has been

acknowledged the pilot should comply with instructions to standby and not, as in this case keep calling.

It can be very difficult to predict the workload of any one FISO because of the nature of their traffic which will usually call without a pre-note. Opening another FISO position is regularly done when workload demands it; however sector splits are done on geographical location and sometimes the traffic patterns dictate that opening another sector would not be beneficial i.e. when the majority of FIS traffic is in one area. Instead, during these busy periods, two people are put onto the same position ('man and boy') to manage the workload.

The extent (limitations) of the service are described in UK ENR 1-1-2-1.

PRE-FLIGHT INSPECTION

Report Text: I had arranged the hire of a C172 to take two friends up on a local flight as my group-owned Auster was out of commission. I had picked a perfect, calm day for this flight and arrived early as usual. I saw the plane return and park up. The two previous hirers climbed out and I had a chat with them to see if they had any defects to report. I also asked them to not bother putting any covers on etc as I would be flying very soon. I made an inspection of the plane whilst the previous occupants moved their belongings from the plane to a car and ensured all their items were removed. I also made a physical inspection of the fuel (dipped the tanks) as I had flown this C172 on a number of occasions and knew that the engine was tired and I wanted to ensure there was not too much fuel.

My friends arrived and I greeted them and said I would meet them in the café. I left the previous hirers removing their final bags which they had deposited outside the plane.

We returned to the plane and climbed in with the usual safety briefings etc. Run ups were normal and off we set down the runway. The plane was its usual sluggish performer with the ASI hardly moving. As we passed about half way point the plane lifted off, still with no indication on the ASI. You guessed it. There was the pitot head cover on - it was the same colour as the plane with no streamer. I was past my abort point so did a quick circuit and landed safely.

Lessons Learned: Look at things with the presumption that it is not right and positively justify that the inspected item is correct. If you are hiring a plane make sure the previous hirers have gone before you start your inspection. Plan your decision point on take off and stick to it.

CHIRP Comment: This incident highlights the importance of not becoming distracted during a check sequence and, if interrupted, returning to the start of the sequence. Also, check your airspeed before lifting off on every take off. If you are unfortunate to take off with no airspeed information a smoothly flown, normal circuit pattern maintaining normal pitch attitudes and power settings is the prudent option. If necessary divert to a long runway to permit you to fly a faster than normal approach without a risk of overrunning the runway.