CHIRP GA FEEDBACK

Issue No: 59 1/2014

EDITORIAL

We continue to receive reports, comments and advice about joining, flying and departing visual circuits. It is perhaps not surprising that incidents arise where many aircraft fly in relatively close proximity but the number of incidents reported to CHIRP, the UK Airprox Board and the CAA does cause concern. While it would be fair to say that existing rules of the air and procedures have largely stood the test of time, the high performance of some modern light aircraft and microlights has introduced problems that may require different rules and procedures to make the best use of limited airspace. At the very least, a review is required.

Readers may be aware that Airborne Conflict is one of the CAA's 'Significant Seven' safety risks and one that is being addressed by a specialist Action Group. One of the subgroups assembled to inform the Action Group was the Visual Circuits Working Group whose remit was to review existing rules and procedures with a view to addressing all aspects of visual circuits including those we see regularly reported to CHIRP. The Group formed 18 months ago, researched widely and is now close to making its recommendations. While we all look forward to hearing what is proposed, pilots everywhere are reminded that there are few problems in the circuit that cannot be avoided by good lookout, listening carefully to everything that is said on the RT, flying defensively and taking a courteous approach to fellow aviators.

On an administrative subject now, would any readers prefer to receive FEEDBACK by e-mail? If you would like to be added to our e-mail distribution list, or if you have any comments about CHIRP, the distribution of FEEDBACK or the reports it contains, please e-mail us at confidential@chirp.co.uk. I look forward to hearing from you.

Ian Dugmore

POOR AIRMANSHIP

Report Text I was in the cruise at 100kts approaching BPK and in receipt of a Basic Service when ATC advised of an aircraft behind us at the same level to our port that appeared to be shadowing us. I immediately turned my head to look and true to the traffic information there was a Cherokee or similar aircraft uncomfortably close in my 8 o'clock at the same level and appearing to move closer. This continued for a further very long 5 minutes as we continued on route with my wife keeping a direct visual track on the aircraft. I didn't know this pilot's intentions or why the pilot felt the need to fly the same heading at the same altitude. He then closed to approximately 150m when he proceeded to accelerate past and then pull directly in front of us with 150m clearance, as if he was driving a car! He then proceeded on the same course and level for a further 3 minutes and then proceeded in a westerly direction thank goodness. I considered descending to a different altitude but thought again that due to the unpredictable way the offending aircraft was flying that it would be safer to keep it in clear vision at all time. I could not climb due to Class A airspace being at 2500ft and for the same reason so as to keep the aircraft in clear sight. I considered that a serious or fatal accident could easily have been caused by the offending pilot as I could have turned and flown directly into his track and I considered his actions extremely irresponsible to fly the same heading with 150m separation and to then effectively cut me up with possible severe wake turbulence ensuing.

Lessons Learned: I considered that the offending pilot had no concern for our track or safety and that he forgot safe separation and showed no regard to good airmanship.

CHIRP Comment: **The reporter was recommended to submit an Airprox report but declined to do so. The Airprox investigation would have included tracing action on the other aircraft and asking its pilot to submit a report. From the description of the incident it seems possible that the other pilot did not see the reporter's aircraft; this might explain the other pilot appearing to overtake the reporter's aircraft incorrectly on the left. Pilots should not expect Traffic Information when in receipt of a Basic Service and must maintain an effective lookout at all times in Class G airspace. Although avoiding action by climbing was not an option in the area where the incident occurred, pilots should take appropriate avoiding action if any hazard is thought to exist.**

QNH v QFE

Report Text: The flight to Rochester had been routine. Approaching Rochester from the northeast, I was receiving a Traffic Service from Southend on QNH 1022hPa. I was aware that Rochester airport sat below controlled airspace with a floor of 2500ft. After crossing the Thames estuary, I left Southend and contacted Rochester Radio, receiving a QFE of 1007hPa. I changed my altimeter to this setting and continued my approach. I flew the approach at 2000ft

QFE, as their information says overhead joins are preferred and the circuit height is 1000ft. As the airport height is 426ft, 2000ft QFE put me at 2426ft QNH, which is rather close to the floor of the controlled airspace. Although I remained clear of the controlled airspace, the point of writing is that this was due more to luck than good piloting. (What if the airport elevation was 550ft?!) I completely forgot to consider that the change from QNH to QFE might leave me close to the controlled airspace, even though the altimeter at 2000ft seemed to indicate I had a very comfortable cushion.

Lessons Learned: In the future, if I am flying under controlled airspace, I will wait to change the altimeter from QNH to QFE until over the airport, so that I can make sure I retain separation from the airspace boundary. Once overhead, and clear of the airspace, I can change to QFE in confidence, as I will only be descending from that point. In this case, trying to keep in front of the aircraft actually almost got me in trouble.

CHIRP Comment: **This honest report provides a useful reminder that a standard overhead join at 2000ft over Rochester aerodrome (elevation 426ft) does indeed mean that the aircraft will be very close to the LTMA. This proximity is less obvious once QFE has been selected.**

The Rochester AIP entry states, "A standard overhead join is preferred but other joins may be requested". The AIP also contains a warning that the aerodrome is situated beneath the LTMA of 2500ft QNH; this warning is repeated on the Rochester aerodrome web site and in proprietary flight guides. Pilots telephoning for PPR are reminded about the proximity of controlled airspace above them and the FISOs routinely repeat this warning on the RT. It is important to remember this warning after the QFE has been set and ensure that the aircraft does not climb above 2000ft.

Finally, the FISOs at Rochester provide an information service, call sign 'Rochester Information'. This is a different service from that provided by aerodromes with Air/Ground operators, call sign '..... Radio'. Pilots should make themselves aware of the types of service available along their route and the important differences between them.

Unsafe ATC Procedure

Report Text: A flight to YYY airfield, which is located under the MATZ, stub for RAF XXX. At 20nm range I made a courtesy call to "XXX Zone" on VHF and advised them that I was en-route to YYY at 2000ft on a regional QNH with a squawk of 7000 Mode C. I was passed the XXX QFE and their wx. I was then instructed to descend before entering the stub to below 500ft. I was not familiar with the approach path at YYY and as I was flying in Class G airspace I elected to remain 500ft above ground until established on the approach. I advised XXX that I was operating in Class G airspace outside of their ATZ.

I am long enough in the tooth to decline an unsafe "clearance" from ATC but feel that this was an instruction that if given to a low hour pilot could lead them into danger.

CHIRP Comment: **The report was received more than 30 days after the incident and it was therefore not possible to listen to the RT recordings. However, HQ Air Command advises that controllers are not permitted to instruct a pilot to descend to a level that is beneath the terrain safe level as indicated on the Radar Vector Chart. On that basis it seems more likely that the controller was requesting the pilot to fly at 500ft beneath the stub to deconflict from IFR inbound traffic. It is also good practice for ATCOs to explain to pilots why they are requesting a change of level or route if time and workload permits. There is a Letter of Agreement (LOA) between the 2 subject airfields, which includes arrangements to brief visiting pilots. The LOA states that XXX ATC may require YYY traffic to fly not above 500ft QFE when arriving or departing. Where pilots are unable to accept this restriction, they may be asked to remain on the ground or hold off until XXX traffic is clear.**

There is no obligation on GA pilots to comply with military ATC requests outside an ATZ but it is good airmanship to cooperate if practicable. Any request should be declined if the pilot judges it unsafe to comply. Finally, if you subsequently wish to report your experiences as this pilot has conscientiously done for the benefit of others, be aware that RT recordings are routinely retained for just 30 days.

Near Miss (1)

Report Text: I had a near miss last year on a 2000ft overhead join. I'd heard the pilot saying he was passing overhead the airfield (no height offered), but I had a very long way to go before I called my overhead approach. We were both on radio, so I should have confirmed he was long gone.

You mentioned last month a current Working Group on circuits. Is there a minimum height, of say 2500ft, above a runway that is formally recommended for transiting planes who like to route flights using runways as their waypoints and a recommendation that airfields request that minimum clearance outside their zone when radioed? It seems unnecessary for the increase in GPS routing and circuit patterns to bring aircraft together at an exact height & at an exact place.

CHIRP Comment: **There is no margin stipulated for flying above a traffic pattern but if there is sufficient useable airspace above, good airmanship, common sense and self-preservation all necessitate allowing sufficient height to avoid conflicts and/or discomforting other pilots. Don't forget that visual traffic patterns are based on QFE so you need to take into account the height of the ground when calculating your safe transit altitude. It is also good practice for pilots intending to transit the vicinity of an aerodrome to call ahead in sufficient time to request relevant**

aerodrome and traffic information and to alert other pilots and ATC about the transit.

NEAR MISS (2)

Report Text: The weather was overcast 8/8ths, cloud base about 2000ft amsl. I was at 1500ft on the QNH and speaking to a LARS unit before switching to ZZZ Radio. On requesting airfield information for a touch-and-go, I was advised the runway in use and circuit direction, given the QFE and was advised "no traffic to affect". I had just dialled up the QFE and was about to commence a right turn to join downwind [from a position 2 miles due east of the aerodrome] when my passenger pointed out an aircraft at the same height. It was in my 2 o'clock on a reciprocal course, so it was between me the airfield. I would estimate the separation as we passed to be between 200 and 300 metres. The other aircraft continued on a northerly course. I took no avoiding action because, (1) although it was quite close, the other aircraft was not on a collision course and (2) he was abeam and past before I could react. I asked the air/ground operator if he had any other aircraft on frequency and he confirmed he had not. On landing I sought the views of radio operators and instructors. The general opinion was that the aircraft I saw should have spoken to ZZZ Radio before approaching as close as he did (no more than 2nm).

Lessons Learned:

1. When an air/ground radio operator says "no traffic to affect" it doesn't mean there isn't any. It means there is none that he is aware of.

2. When the cloud base is 2000ft everyone is going to be flying between 1500 and 1900ft - i.e. virtually the same height.

Suggestions: Keep a good lookout even when you think there's nothing out there and always speak to an airfield you are about to overfly or approach within 2 or 3 miles.

CHIRP Comment: **Since this occurrence was not reported as an Airprox it is not possible to know whether the other pilot was in visual contact with the reporter's aircraft. However, it is poor airmanship and a frequent cause of Airprox incidents that pilots fly too close to aerodromes without announcing their presence on the RT. Since A/G operators are unlikely to be aware of transiting traffic that has not called on the RT, they are required to use the phraseology that there is "no reported traffic". Whatever is said on the RT, in Class G airspace pilots should maintain a vigilant look out at all times and, as in this case, 'expect the unexpected'.**

INFRINGEMENT OF CAS

Report Text: During one of the best flying days I've ever experienced I undertook what was to be my most ambitious flight in my 8 years of flying. The journey was to be solo outbound [from Kent to the NW] and returning the same day with 2 passengers; the round trip would be 530 nm and almost 5.5 hours total.

The outbound journey was completed without incident and was certainly one of the most satisfying flights I've had to date. On the return I had planned to climb to 5000ft and to maintain this level until after overflying Oxford. I then intended to descend to 2400ft to remain under the London TMA and to remain at this height until descending into the circuit at my destination. However, sometime after passing BOV I encountered some strong thermal activity, which increased my height to around 2700ft. Having noticed this I carried out an immediate descent to 2400ft again. After a few minutes I was aware that I had again gained height and was once again in the TMA. My passenger in the right hand seat who is a non-flyer asked what the issue was and as he was holding the chart for me I tried to explain to him the legend depicting the airspace above us. Between the two of us we concluded that the TMA at this point was 3500ft not 2500ft after all. Stupid mistake as I've flown this part of the route many times in the past and know well that it's 2500 ft. I therefore decided that I needn't worry and continued at around 2600-2700ft. On contacting Southend Radar just south of Stapleford I was asked my altitude and reported 2600ft. The controller advised an immediate descent to 2400ft which I did. Clearly I had been infringing the London TMA for quite some time. The rest of the flight was uneventful.

Lessons Learned: Having now had time to review the whole incident I have made the following observations. In spite of having planned the flight thoroughly I failed to follow my planning to a sufficient degree. What caused the infringement? Well the strong thermal activity certainly caused the increase in altitude I experienced but that's not an excuse, just a reason. Why did I not control this? A couple of factors come to mind, firstly this happened after having flown for some 4.5 hours in one day, by far the most I've ever done and I'm sure that tiredness played a significant part. Secondly, after flying at or above 5000ft for around 1.5 hours somehow the ground seemed ever so close when at 2400ft. This may have led to a psychological feeling of being too low. What will I do to avoid this in future? When marking my route on my chart in future I now plan to mark each of the legs with the maximum altitude permissible for that leg. Had I done this on this occasion there would have been no doubt about what level the TMA began. It is also worth noting that this phase of my flight was the only time I was not actually in contact with an ATC unit, having signed off from Oxford stating I would be free calling Southend. Stapleford was closed for the day. My aircraft carries Mode S, which I always use and had I been in touch with London Info or Essex Radar, they may well have been able to warn me of the infringement much earlier. Although I was listening to Southend they were not aware of my presence until I called them south of Stapleford. In future I will remain in contact with someone at all times, or at least make

use of the increasing number of listening squawks available. I have been flying now for some 8 years and believe this is the first time I've been the cause of a major infringement. This does not sit well with me and hope that the experience will sharpen my flying in the future.

CHIRP Comment: **The reporter has honestly and correctly identified important lessons and factors to remind other pilots about some of the principal causes of infringements. Key elements were flight planning the route only 100ft below the base of the TMA in weather conditions conducive to thermal activity, compounded by incorrectly interpreting the base of the TMA from the aeronautical chart. Recently announced changes to the 1:500k and 1:250k VFR charts may assist with this latter issue; see the NATS AIS website for details** http://www.nats-uk.ead-it.com/public/index.php.html.

Another factor may have been the distraction of seeking the assistance of a non-flyer passenger, particularly given the complexity of the airspace depicted on the chart. Finally, it would have been sensible to call Farnborough LARS for the transit beneath the TMA. The benefits of a LARS service are illustrated in the report below.

POSSIBLE INFRINGEMENT OF THE LONDON TMA

Report Text: On an instructional flight, with an experienced and competent student (a PPL holder regaining currency), we had planned a visual navigation exercise, which would take us right to the edge of the Gatwick CTA at 1400ft (an altitude chosen to prevent an infringement of the CTA if we should slightly overshoot our turning point). The student was PF, and we had turned as planned at Bough Beech Reservoir. We had planned a climb to 2400ft for this leg but I elected to remain at 1400ft initially rather than starting our climb immediately, in order to satisfy myself that we were definitely well clear of the Gatwick CTA before climbing. Having climbed to 2400ft, at the halfway point of the leg, we fixed our position as halfway between Crowborough and Wadhurst. I asked the student to give me our corrected heading to track to Hastings Pier, which he did. Shortly after we turned to the new heading and while we were revising our ETA, Farnborough Radar called to advise us to descend immediately. Our altimeter showed we had inadvertently climbed to 2600ft. I had allowed myself to become distracted by our navigation corrections, to the detriment of keeping a watchful eye on our altitude. I believe that having just left the vicinity of the Gatwick CTA, where I had been acutely aware of the risk of infringing, I had allowed myself to relax too much and neglected to give the proper attention to other CAS in the vicinity. I am very grateful to the Farnborough LARS ATCO for their watchful eye and prompt action, which likely prevented us climbing even further into CAS.

Lessons Learned:

1. As an inexperienced instructor, with a competent and capable student, I believe I had allowed myself to become too much of an equal partner in the conduct of the flight, rather than remaining aware of my responsibility as PIC. I let the student's competence lull me into a false sense of security. I learned that I am PIC of an instructional flight, no matter how competent and capable the student, and that I must remain vigilant and on-guard against errors and distractions.

2. After leaving the immediate vicinity of the Gatwick CTA, I had just been working hard to ensure we did not infringe airspace. I believe when we tracked away from Gatwick, I relaxed, feeling that the high-risk time for an infringement had now passed, and that this complacency contributed significantly to my lack of awareness of other airspace we might infringe. The lesson learned is that if I catch myself relaxing and feeling that danger has now passed, this is exactly the time I need to be most on-guard.

3. The ATCO at Farnborough Radar doubtless prevented an even more serious infringement. I will be emphasising to students the value of LARS as another point at which the error chain can be broken to minimise the consequences of a lapse in concentration.

CHIRP Comment: **Another honest account rich in lessons for others. This was another case in which pilot-in-command, an instructor, had elected to fly only 100ft below the base of the London TMA and then inadvertently climbed into controlled airspace. Fortunately in this occurrence the instructor had mitigated his risks by utilising an ATS from Farnborough.**

Contact Us

Report forms are available from the CHIRP website or can be submitted via email and post.

FREEPOST RSKS-KSCA-SSAT
CHIRP
26 Hercules Way
Farnborough GU14 6UU

Free*fone (UK only)*:	0800 214645 or
Telephone:	+44 (0) 1252 378947
Fax:	+44 (0) 1252 378940 (secure)
E-mail:	confidential@chirp.co.uk