

GA FEEDBACK

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TRANSPONDERS - USE IN THE CIRCUIT

In Issue 13 of GA FEEDBACK (Page 4 - LARS-Transponder Codes), we reflected the advice that was published in the UK Aeronautical Information Package (UKAIP) regarding selecting a transponder OFF in an Aerodrome Traffic Zone.

Subsequently, we have learned that it has been decided to revise the published procedure to reflect the increasing use of Airborne Collision Avoidance Systems (ACAS).

Whenever possible, pilots with a serviceable transponder should select and transmit code 7000 with Mode C (Altitude Reporting) at all times, unless one of the following apply:

- An Air Traffic Service Unit has allocated a different code.
- A Special Purpose Code is more appropriate (e.g. Distress Code - 7700).
- The aircraft is operating in a visual circuit where local procedures require the transponder to be selected OFF.

The UKAIP is being amended.

EXPERIENCED BUT NOT PERFECT

I am saddened to read the following in GA FEEDBACK, (Issue 13 - September 2002, Page 1 - Remember the Basics), "...knowing a group of very experienced ATPL holders would be watching my arrival with critical eyes".

We are all the same, whether we are new boys or very experienced, only as good as our last landing, and whilst I have about 20,000 hours and over 40 years experience, I am just as likely to make a mistake as anyone else. In fact, due my age, I am probably more likely to err than the young, skilful pilots. You could argue that the experienced pilots are the ones under most scrutiny because we are expected to set an example and we are therefore the ones most likely to be criticised for making a blunder.

Please don't ever let our presence cause you to be under any unnecessary stress; we have all been there ourselves, and we gain great pleasure from being in the company of other enthusiasts whether they be young or old. We also gain even greater pleasure from watching, or encouraging the younger, newer generation who will soon take our place; that they can do this provides people like myself with enormous satisfaction.

Just relax, enjoy your flying and keep thinking ahead, whilst building on the experience you have and are gaining all the time. One day you will be as old and imperfect as the rest of us!

TRANSPONDER CODE (GAFB 11) - A COMMENT

In the report 'Near Miss Incident' in GA FB 11 - March 2002, I may be doing the reporter a disservice, but he seems to imply that it is wrong for two aircraft to be given the same squawk code. Whilst it is generally the case that each aircraft working a unit will be allocated an individual code, this is not always the case. Most RAF units, for example, have one code for Flight Information Service (FIS) which every aircraft working that unit and receiving FIS will squawk, and another for Radar Information Service etc, although the code will vary between units. Similarly, several civilian units have a common squawk code, which all their aircraft use for conspicuity for the benefit of a nearby radar unit, e.g. Coventry for Birmingham.

Unfortunately, many pilots do not realise this and waste valuable R/T time by complaining that someone else has just been asked to squawk "their" code.

Perhaps it might be pertinent to publicise this in either "GA FEEDBACK" or "GASIL".

As noted above, the allocation of a transponder code does not confirm that the ATSU has a secondary radar capability; the code may be for the benefit of another unit.

A General Aviation Safety Newsletter

from the Confidential Human Factors Incident Reporting Programme

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REVALIDATION REQUIREMENTS

I raise this issue with CHIRP because I don't know where else to raise it! It relates to the new requirement for revalidation of Private Single Engine Piston pilots, and to a lack of understanding in the industry about the implementation of the Air Navigation Order (ANO) and the various Aeronautical Information Circulars (AICs) issued by the CAA on the matter.

The implementation of JAR-FCL2 resulted in a change to the revalidation requirements for single-engine piston licences, with the option of revalidating by undertaking a one-hour flight with an instructor in the 12 months prior to Certificate Expiry, having completed a certain minimum number of hours in that time also. The ANO gives no guidance as to what this hour should comprise, nor is it a pass/fail test.

Instructors sought clarification from CAA (SRG) Flight Crew Licensing Department and the result was AIC 127/1999 (White 378). SRG confirmed to me that this is to be regarded as advisory, not mandatory, and the content of the flight is a matter for agreement between the instructor and the pilot.

Two years ago, having recently been checked out for a single-engine rental and having had instruction on another type, I felt that it was unnecessary for me to go through the routines described in AIC 127/1999 and instead arranged with my instructor to spend a full hour practising forced landings, since this was an area upon which I felt weak.

Recently, being once again in the final 12 months of my Certificate I arranged with my local aero club to have a check ride (having not flown one of their aeroplanes for more than their currency limit of 28 days). I requested an hour IMC practice since this is in my experience the skill which goes "rusty" most quickly. The instructor declined to do the IMC practice as the "one hour with an instructor", and he pointed to a copy of AIC 127/1999 pinned up on the club notice board, saying he was "not happy" to sign someone off without having covered the "syllabus" in the AIC.

If the new regulation is supposed to promote flight safety, then the content of this flight should be a matter for negotiation between the instructor and the revalidating pilot. The ANO, in not stipulating content, provides for this.

Many pilots (including myself) have limited budgets for flying at in excess £100 per hour with an instructor in the plane, and if flight safety is to be promoted then this hour should be used properly, not according to a mantra set out in an AIC, about which the then Head of FCL stated, "We set out to provide guidance in the AIC - and it is only guidance, which does not have to be followed, rather than a flight test - which would address those issues. Nevertheless, with the benefit of hindsight, I recognise that the AIC can be seen as overly prescriptive and we are currently working on a

revised version which I hope will prove more helpful to the industry and which we will publish as soon as we can. "

To the best of my knowledge that revised AIC has never been published, and we are all the poorer for its absence.

On the recommendation of the CHIRP GA Advisory Board, the reporter's concerns about the current wording of the AIC were represented to the Head of Flight Crew Licensing Department CAA (SRG). The following response has been received:

The requirement for a one-hour flight with a flight instructor was introduced in the UK in January 1999 in anticipation of the implementation of JAR-FCL in July of the same year. At the time no guidance was given, or indeed appeared necessary, as most flying clubs and training organisations already conducted similar flights for their members to regain currency or prior to hiring an aircraft to an individual. However, in response to a request from the training industry, AIC 127/1999 was published to give guidance on those areas of flying skills that could be usefully addressed during this flight. The AIC emphasised that the flight did not represent any form of proficiency check although the instructor was able to use his discretion and refuse to provide the required signature in the log book if he felt the pilot had not demonstrated a safe level of competence.

Unfortunately, AIC 127/1999 was interpreted by some as a mandatory list of exercises to be completed, which was never the intention. It was therefore decided by the Head of Flight Crew Licensing at the time that additional guidance was necessary, and although it was thought this would most likely take the form of a revised AIC this was never published. In the event, the guidance was placed in a Standards Document (No 14), for the information of the examiner ultimately required to revalidate the class rating. The guidance recommended that the content of the flight should address those manoeuvres rarely practiced or requested by the pilot to improve his overall flying skills.

I appreciate that while this guidance has been available to the examiners for some time, similar guidance is not readily available to the flight instructor or the pilot undertaking the flight. I therefore intend to issue a revised AIC clarifying the intent of this flight, and incorporate this guidance in our LASORS document in due course.

ORBITS IN THE VISUAL CIRCUIT

(1)

Over the past year or so I have become increasingly concerned at the propensity of requests by local air traffic control for visual traffic to carry out orbits to achieve separation in the visual circuit. I believe that if we

continue to carry out orbits in the visual circuit, it is only a matter of time before we have an air-to-air collision between two unsighted aircraft that, on the request of ATC, are orbiting at the same height with the orbits slightly displaced. The potential for a confliction occurs where the orbits intersect. The aircraft are at a similar height, travelling in the opposite direction, belly-up and therefore, unsighted to each other.

When learning to fly, I was taught that I should never normally orbit in the circuit and that if in doubt that I couldn't achieve the circuit as planned I should go around. Nevertheless, if an orbit was necessary, it should always be in the direction of the circuit traffic

In the last 12 months, whilst flying light aircraft in the visual circuit, I have received the following orders from local Air Traffic Controllers:

- 'Orbit at the end of the downwind leg' with traffic behind that was not told to orbit (two airfields).
- 'Orbit in the circuit against the circuit direction' (two airfields).

When I have decided to go around in the above cases, having considered an orbit to carry too much risk of a collision, in the case of two airfields, I was told 'Negative go around'.

I have debriefed the above and reached an agreed compromise with the relevant Air Traffic Controllers and in some cases with the respective Senior Air Traffic Controller. However, I have learned that the orbit is a standard procedure taught at Air Traffic Control schools and in addition, that Air Traffic Controllers are taught to orbit traffic in a direction opposite to that of the visual circuit.

Intuitively, I believe it dangerous to approve such a procedure, especially in a direction opposite to that of the circuit traffic, as there is a significant risk of a mid-air collision. I am also deeply concerned that some Air Traffic Controllers believe they can stop an aircraft going around; at one airfield, the Controller stated that there was no go-around procedure for that airfield. (The SATCO later debriefed him otherwise).

(2)

This letter is to highlight an operational practice by ATC at ### airport, which I experienced first hand, and which I believe reduces safety for aircraft operating in the circuit.

I was undertaking a currency check ride with a club instructor when we were asked to orbit at various points both within and close to the normal circuit. The maximum number of aircraft that are allowed in the circuit is three and there were five aircraft in the local

area at the time. The controller asked us to orbit at various local points with the last point being mid-downwind (we were number three in the traffic sequence). We were then incorrectly cleared as number two. We pointed out the discrepancy to the controller who advised that we were indeed number three. If the controller is struggling to remember where everyone is what hope is there for others?

The purpose of this letter is not to complain about a controller but to point out a local practice, which does not appear to be very efficient or safe. My instructor advised that earlier in the day two students on their first solo had also been requested to orbit in the circuit. There was no vertical separation of aircraft and at no time was anybody requested to "extend downwind" nor was any similar spacing tactic used. I appreciate that the controller was operating within the rules and doing his best, however it seems daft to me that orbits are being conducted at an airfield with Radar, Approach and Tower frequencies. I have seen much busier airports with that many aircraft in the circuit and orbits were not needed. I know that there is jet traffic intermittently using the ILS but even so there was plenty of scope for more practical and expeditious handling of circuit traffic.

It is my opinion that orbits are dangerous and unnecessary except in urgent situations, I do not think that they should be used as a matter of normal routine. I hope my letter helps to change what is an accident waiting to happen.

These reports were reviewed by the CHIRP GA Advisory Board and subsequently the principal issues raised were discussed with representatives of CAA (SRG) Air Traffic Services Standards Department. It was agreed that whilst there was a need for orbiting, such as in 'mixed' traffic situations with high performance and slower aircraft in the same traffic pattern, in order to achieve an orderly traffic flow, the advice available on the procedure and technique could be improved. This included:

- *Improved guidance on 'Best Practice' for ATCOs and improved understanding of the consequences of issuing an orbit instruction.*
- *Guidance to pilots on the correct orbiting technique and safety considerations in relation to the procedure.*

It is hoped that additional guidance will be made available in the near future.

A NICE DAY, BUT ...

It was a nice summer day and it was decided to have a club flyout from AAA to BBB stopping at CCC to pick up a couple more club members. The flight was

uneventful until approx two miles NE of ### a slight vibration was felt through the airframe. The throttle was eased back and the vibration ceased. The throttle was then re-applied, the vibration started again, then there was a loud bang and the engine revs went through the roof. The throttle was immediately eased.

A visual inspection revealed the prop still in place and no damage to the (*microlight*) sail. An emergency landing was successful in a field with a slope of about one in five with no damage to the flexwing aircraft. Upon inspection it was found that the gearbox was hanging loose and only held on with the radiator brackets. Upon stripdown it was revealed that the heads on three of the four studs holding the gearbox retaining plate had sheared off. The heads had jammed in the gears, and all the gear oil had sprayed everywhere.

During the pre-flight inspection nothing had shown up to be loose and there was no sign of any oil leaking. The pilot felt that there was no way that he could have been forewarned of any failure of this kind and feels that he was very lucky to have been successful in executing an emergency landing downwind on such a steep inclined field at 1,200ft ASL. The aircraft sustained no damage on landing.

Engine failures can occur with little or no warning. Regular practice and always being prepared for the possibility of a forced landing will provide the best chance of a successful outcome. This should include monitoring the area over which you are flying; if it is not suitable for a forced landing, adjust your track to ensure that a suitable area is within gliding range.

A MATTER OF PRIORITY

The following incident occurred at our home base, a small licensed airfield with (on this occasion) an unmanned control tower. The runway in use was ## left-hand and the pattern was busy with four aircraft in the circuit and one joining overhead.

I was carrying out some circuit practice in our group-owned high-winged aircraft with an experienced PPL as passenger. I had just completed one circuit and was climbing away from a go-around when I heard an aircraft belonging to a resident flying school call, 'Going around' from somewhere behind me.

Climbing through 400 feet, I checked to the left in preparation for my turn onto the cross-wind leg and was shocked to see the aircraft less than 20 yards away at exactly my height and occupying the space I was about to turn into! I called the other aircraft on the R/T and asked what his intentions were; discovering that he was also remaining in the circuit, I advised that I would follow him round, delaying my cross-wind turn to provide safe separation.

Needless to say, I approached the instructor (who had been occupying the right hand seat) after landing to discuss the incident. His comment was, "If you'd been monitoring the R/T, you'd have heard me call you to say I was passing on your left!"

Unfortunately, neither my passenger nor I heard that call; however, with such a comparatively busy circuit there were a lot of R/T transmissions and it's possible that his call was blanked out by another aircraft transmitting simultaneously.

From his response, I've no doubt that this pilot would do exactly the same thing again, given similar circumstances - so I would value your comments on the matter.

On the day in question there was no wind and my aircraft was heavy and hence had a relatively poor rate of climb.

In the situation described in this report, the pilot of the overtaking aircraft should have remained clear of and carried out the overtaking manoeuvre to the right of the reporter's aircraft in accordance with 'Rules of the Air' - Rule 17 (4).

Although Rule 17 contains additional provisions for flight in the vicinity of an aerodrome, none of these sanction the manoeuvre described in this report.

SEAT SECURITY

I nearly got caught out by a pilot's seat in a ### that did not lock into place after I had adjusted it during my pre-flight checks. It was an Aero Club aircraft that I was flying solo.

After takeoff, luckily well established and trimmed in the climb, the seat slid back leaving me virtually unable to reach the rudder pedals and struggling to stop the nose from rising with my longer than average arms at full stretch. At 1,000 feet I levelled off, re-positioned the seat until it locked and then continued the climb a wiser and somewhat chastened individual!

It is vital to check that the seat is securely adjusted before commencing a take off, particularly when flying a club/group owned aircraft in which the seat is moved frequently; it is equally important not to use excessive force when carrying out the security check.

Do you know what you would do if this happened to you during or shortly after take-off? Think about it and be prepared.