CHIRP GA FEEDBACK

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EDITORIAL

In 1996, when The CHIRP Charitable Trust was set up to manage confidential reporting, Kirsty Arnold joined the organisation as Administration Manager and provided valuable assistance in the progressive expansion of the Programme, including the incorporation of the GA communities in 1999. Later in 2001, Kirsty assumed the additional responsibility for the management of the Cabin Crew Programme.

Kirsty has been offered, and accepted an opportunity to further her career in cabin crew safety management.

The success of this Programme has been due in no small part to Kirsty's outstanding commitment and her quality of work over more than fifteen years. The Trustees and I greatly appreciate Kirsty's contribution and wish her continued success in her new role.

Peter Tait, Chief Executive

CLOSE ENCOUNTER DURING AEROBATICS

We received a report describing a very close encounter between a light twin engine aircraft transiting and a high performance bi-plane practising an aerobatic sequence along a prominent line feature. The transiting pilot took late and vigorous avoiding action from the other aircraft that was in a steep descent from a loop.

This incident serves as a reminder to pilots undertaking aerobatics of the importance of considering the location that you select to carry out aerobatic manoeuvres and maintaining a good lookout throughout your sequence. It is also a reminder to transiting pilots to carry out the recommended lookout scan technique including the areas above and below the aircraft's flight path.

Remember, it's no good flying an accurate, straight loop if you're not around to tell your friends!

INSTRUMENT APPROACHES IN CLASS 'G' AIRSPACE

Report Text: I would like to highlight a problem flying the instrument approach at XXX that has occurred to me on more than one occasion. Outside the ATZ the instrument approach is in the open FIR (i.e. in uncontrolled airspace). Although marked on the VFR charts as having an instrument approach on both ends of the hard runway, this fact seems to be missed by many pilots.

On several occasions I have witnessed pilots flying through the instrument approach track quite oblivious to its presence and recently I had to take over control from my student to take avoiding action, in the base turn, against a large twin engine aircraft. The approach track orientation is roughly North - South, but the position of the airfield leads to most passing traffic going East - West or vice-versa. On this particular occasion the transiting aircraft chose to fly at exactly the height of the base turn procedure. I had to roll out of the turn on an easterly heading and let the aircraft pass before continuing the turn to intercept the final approach track. Considering the conflicting aircraft was most likely to have been flown by a commercial pilot (due to the size), this was a particularly poor display of airmanship. Luckily we were in good VMC at the time and avoidance was not too much of a problem.

The aerodrome has no radar so we were under a procedural service at the time with a conspicuity code on the transponder. Whether or not the other aircraft was in communication with any ATC unit I do not know, but they certainly did not contact the aerodrome in question. The local LARS providers may have been in communication, but not necessarily providing a separation service at the time. Although we are all obliged to maintain a vigilant lookout at all times, flying an instrument approach is always going to compromise this somewhat.

Is there more that could be done to publicise instrument approaches that project into uncontrolled airspace and provide would-be transiting aircraft a safe crossing procedure? Remaining well clear would be a good option, but there may be others. However, this does still rely on the pilot being aware of the instrument approach in the first place. Improved awareness of such instrument procedures and encouraging pilots to contact the relevant aerodrome ATC for information regarding the activity of the instrument approach would be a start.

This has the potential to become more of a problem next year due the restricted airspace in place around the Olympics forcing aircraft into a narrow corridor abeam the aerodrome. Please read your map carefully!

Lessons Learned: I shall maintain my vigilant lookout during an instrument approach, although this is rather difficult in actual IMC! Request that pilots know what the row of chevrons pointing at an aerodrome on a chart mean. Make an RT call to an aerodrome early when intending to pass by, even if it is at some distance, when the said aerodrome has the chevron markings and your track goes through them.

CHIRP Comment: **For those readers who are not familiar with instrument approaches, the instrument approach pattern involves positioning at an altitude, typically between 1,500 - 2,500 ft, to a position between 5 and 8 miles on the extended centre line of the instrument runway in use. From this point an aircraft carrying out a normal three-degree instrument approach will descend at approximately 300ft/nm to the runway.**

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As the reporter notes, airfields with one or more instrument approaches outside Controlled Airspace are annotated on aeronautical charts by a chevron/cone symbol; the symbol is aligned to the Main instrument runway but does not mean that instrument approaches will always be in the direction of the cone. Two chevrons indicate two or more instrument approaches.

If your planned route is close to such an airfield, be extra vigilant to the possible presence of other aircraft. Also, it is strongly recommended when transiting within 10nm of the airfield to establish RTF contact with the Air Traffic Services Unit. (See Legend Notes - CAA 1:500,000 and 1:250,000 Aeronautical Charts)

Also, an important reminder for pilots and/or instructors carrying out IFR approaches in Class 'G' airspace. It is a legal requirement to maintain a visual lookout under the 'See and avoid' principle throughout the approach procedure and if necessary to give way to other aircraft in accordance with the Rules of the Air.

New Frequency Monitoring SSR Code

From 2 July to 15 August 2012 pilots operating in the Farnborough (West) Lower Airspace Radar Service (LARS) area, who do not wish to receive an air traffic service are encouraged to select the Farnborough Frequency Monitoring Code [*5047] and to listen out on the Farnborough (West) LARS frequency [125.250 MHz].

This will allow Farnborough ATC to attempt to contact an aircraft likely to infringe the Temporary Airspace Restrictions associated with Farnborough International 2012 and the Olympic Games.

The above does not imply any form of ATC service.

Runway Entry Stop-bars & Conditional Clearances

Runway Stop-bars are installed at some airports at entrances to runways; they may also be fitted at other locations at larger airports.

A Stop-bar consists of a row of lights spaced equally across the taxiway normally at right angles to the centreline and showing red towards an approaching aircraft when lit.

Photographs courtesy of US FAA and Eurocontrol

Report Text: I was cleared to hold at the holding point for the active runway in my light aircraft. I called, 'Fully ready'. ATC instructed me to 'Line-up and wait after landing light aircraft'. My readback was verbatim; the light aircraft was continually in sight. I entered the runway after the 'condition' had been satisfied (Light aircraft close to turning-off) and stopped on centre-line for Take-off clearance.

ATC gently admonished me for crossing a red Runway Entry Stop-bar before it had been turned off. I said that I had been cleared to 'Line-up and wait after...', and the controller politely affirmed that a red Stop-bar overrides everything.

I admitted my mistake, and the whole exchange was most courteous, but I remain very uneasy about the use of a conditional take-off clearance with a red Stop-bar. The use of the two together contains a hidden, and unmentioned, constraint. , there's a real trap here - if I can do it (I am also an airline Training Captain with more than forty years of commercial flying), couldn't anyone?

Lessons Learned:

1. Anyone, whatever their experience, can make a mistake - this is my only runway incursion in 45 years of flying.
2. Greet a courteous reprimand in like manner - an active runway is no place for a heated technical discussion, though a simple misunderstanding may be resolved.
3. Controllers should only use a conditional take-off clearance when really needed. If a red Stop-bar is in use, the controller should not issue a conditional take-off clearance.
4. Never cross any red Stop-bar at any time of the day or night, whatever the visibility.

***CHIRP* Comment:** As the reporter emphasises, if an airfield is equipped with runway entry Stop-bars, these should never be crossed when lit, unless ATC advise you that the Stop-bar is unserviceable and issue you with a specific clearance to cross. If in any doubt, confirm your clearance with ATC and advise them that the Stop-bar is red.

The CAA has been requested to review the use of a conditional clearance by ATC when Stop-bars are in operation.

Incorrect Runway Length

An incident has been reported to us in which a pilot elected to visit an airfield for the first time after having consulted his new 2012 Flight Guide to ensure that the runway length was adequate for his aircraft.

His arrival was uneventful but on departure, he realised during the take-off run that the runway length was approximately 250 metres less than that promulgated in the Flight Guide. Fortunately, the take-off was achieved within the actual distance available, albeit much closer to trees on the airfield boundary than had been anticipated.

It transpired that the airfield had an overrun area for the southwesterly runway but the take- off/runway makings for the reciprocal runway did not include this additional length.

It should be noted that whilst publishers of Flight Guides make strenuous efforts to ensure that the information is accurate; in the case of non-licensed airfields the authors of Flight Guides are reliant on the accuracy of the information provided to them by the airfield operator.

There are a number of ways of checking the accuracy of published data; these include checking directly with the destination airfield by telephone, even if Prior Permission may not be required.

OVERFLIGHTS OF GLIDING SITES

Report Text: I was duty instructor at #### Gliding Club in Northern England when we received an unwelcome incursion by a helicopter. The weather was clear with good visibility, 4-5/8 cloud at a base about 1,500ft QFE and a moderate/fresh easterly wind. I was about to take off to the North to carry out some instructor training and was in the front seat of a two-seater K13 glider when we heard and then saw the helicopter. We were unable to identify the helicopter but it appeared to be fairly large (single main rotor but appeared to have a flat underside and possibly retractable undercarriage). It flew due south along the west facing slope at the west edge of our airfield at an estimated 500' QFE. As it came to our windsock, it turned about 15 degrees left and directly overflew our winch launch point.

Communication: Due to the speed of the helicopter, no attempt was made to contact the pilot by radio. The glider launch point radio was monitoring our local air/ground frequency of 129.975 and heard no transmissions.

Decision Making: At the time, we had just commenced a launch which we chose to continue since the helicopter was passing overhead just as we left the ground. We felt some turbulence from the wake during the launch but nothing excessive.

Equipment: Nothing relevant that we are aware of in terms of this incident

Situational Awareness: We were well aware of the helicopter and deemed it safe to launch only after considering the speed, direction and position of the helicopter.

Weather: As stated, the weather was clear with about 4/8 cloud and a reasonable cloudbase - at least 1,500' QFE and very cold so no weather issues pertaining to the incident.

Lessons Learned:

Lesson for gliding site is to listen for passing aircraft and helicopters and identify height & position before commencing a launch

Lesson for the helicopter pilot is to recognise the hazards of flying in areas and at heights that could contain a high density of glider traffic (inherently difficult to see) or winch cables (impossible to see!)

Suggestions:

Ensure by education that GA pilots understand the importance of map reading to ensure that they do not overfly gliding sites

Ensure by education that GA pilots understand the implications of flying low over gliding sites where winch launching is standard practice and where high traffic density may be encountered.

CHIRP Comment: **Overflights of gliding sites, which conduct winch launches, are a recurring problem. Gliding sites are marked on CAA aeronautical charts but may not be depicted on GPS map displays; most GPS units carry a disclaimer against the use of map data as a primary navigation aid. Many overflight incidents occur as a result of pilots navigating by GPS without adequate pre-flight planning of the proposed route.**

The inherent risk in overflying any such site at a height below the promulgated maximum winch height should be self apparent; winch cables are extremely difficult to see.

It is worth noting the definition of an Airprox includes "the potential for a collision". This incident was also reported to the UK Airprox Board and investigated [AIPROX REPORT NO. 2012011 refers].

INCORRECT READBACKS

Report Text: This is an ongoing problem that I am finding with more and more pilots, professional licence holders, trainers and PPL holders.

On more occasions than I can remember, I have issued descent instructions in accordance with CAP 413, Radiotelephony Manual; Chapter 3 - General Phraseology; Para 1.2.3 b), with regard to climbing and descending to an ALTITUDE or HEIGHT. Pilots are getting lazier in their readbacks and at some point, I am sure that there will be an incident. I have tried to obtain correct readbacks, but the pilots do not seem to understand my point.

Allow me to explain with an example. An aircraft is maintaining Altitude 3,000 feet when I decide to descend him further. The following is an example of what is becoming more and more frequent as a readback:

ATC - "ABC123, descend to altitude two thousand, five hundred feet".

Pilot - "Descend two thousand five hundred feet, ABC123".

The pilot has omitted the words "to" and "altitude".

On one occasion I asked a professional pilot to read back the correct instruction. He did not understand the point I was making, saying that he was "told" never to use the word "to" in a climb/decent instruction. I later spoke to the pilot on the telephone and he apologised as he had checked the CAP413 after landing. He said that everyone does it and I would "have a job to correct everyone who does it" on a daily basis. He may be correct, but ignorance is no excuse. As I have said, it seems that all levels of pilot are starting to do this, even the training schools at this busy Southern airfield.

Lessons Learned: I suggest that both ATC and Pilots stick to standard phraseology and stop omitting words. There are no excuses, especially where safety is concerned.

CHIRP Comment: **The current procedure in the UK is to include the word 'to' in an ATC instruction to climb or descend to an altitude or a height. The word 'to' is not used in an ATC instruction to climb/descend to a Flight Level.**

The use of correct phraseology is most important, as is reading back an ATC instruction correctly when so required. Incomplete readbacks are a frequent contributory cause of infringements and losses of separation.

THE OLDEST SWINGER AROUND?

Report Text: I have had a Pilot's licence for many years and I have learned a lot in that time, often by my own mistakes.

Such a situation arose recently and I thought it might be worth mentioning to give a warning.

I was about to fly my two-seater light autogyro, powered by a 130hp Rolls Royce 0-240 engine.

I duly applied the wheel brakes, set the throttle and primed the intake system. I then turned on both ignition switches and went to the rear of the four-bladed propeller to swing it.

I gave the propeller a sharp swing and the engine backfired sharply, the trailing edge of the blade ahead of the one I swung striking my hand as the propeller turned the other way.

My hand suffered some damage, but it could have been far worse. I applied a piece of adhesive dressing and within a minute or two the engine was running beautifully and the flight went well.

I then gave thought as to the cause of the backfire and it occurs to me that one of the magnetos must have been very fit and it had given a spark at its full advance, rather than the impulse system giving the suitably retarded spark.

I now swing the propeller much more gently until it becomes near the impulse firing. It is fairly obvious that a sharp backfire is likely to occur if the magneto fires at full advance when the propeller is only turning at hand-swinging speed.

I would be interested to know whether this potential hazard is known and has been taught. I just thought it was worth mentioning, since I am still learning.

CHIRP Comment: **As readers will know our policy is not to identify reporters; however in this case we make an exception with the reporter's consent to emphasise the point that there is always something to learn in aviation.**

This report was submitted by Wing Commander Ken Wallis MBE, RAF (Rtd) the autogyro designer, who gained his Pilot's 'A' licence in a DH60 Moth on 11 April 1937 and still flies.

On the technique for hand swinging a propeller, it is not necessary to swing a prop sharply, providing the engine is set up correctly and the pre-start preparation has been completed.

A CLOSE CALL

Report Text: My flight to a farm strip was made at a height of 2,000ft in clear conditions and good visibility. With about ten to fifteen miles to run, I called the strip in order to inform any other aircraft of my approach and intention to land. The farm has a radio frequency allocated, but it is not manned.

It is common practice for me to obtain the frequencies I require from the 1:500,000 chart or the 'Frequency Reference Card' supplied with the chart. I have two; one is kept in the cockpit side-pocket and one, similarly embalmed in plastic, with my home computer. On this occasion, my destination was not listed, and I obtained the frequency from a Flight Guide which was out of date.

After making a 'field in sight' call, I positioned the aircraft to pass just off the western end of the east/west runway at 1,700ft giving a good view of the whole airfield. There were no other aircraft operating in the circuit, or on the ground, and I determined by reference to the wind-sock, and a nearby farm-fire with a vertical column of smoke, that there was no wind to contend with. I made the decision to land in an easterly direction.

Continuing my descent on the 'dead-side' of the runway, I heard someone call; 'Inbound, ten miles east'. I called to announce that I was descending on the dead-side for the easterly runway, and I called again when left-hand down-wind for that runway. There were no other radio calls, and we made a normal approach and landing. When almost at the end of our landing-run, at about the middle of the runway length, I became aware of another aircraft at ground level, approaching us head-on, it was very close when it pulled up into a steep climb, banking to its left, to miss us by a very narrow margin. The other aircraft landed after the incident.

Lessons Learned: I am concerned that the other aircraft got so close to us before I saw it, which begs the question; where was I looking? At no time during the approach did I see the other aircraft. Was that down to not expecting to see anyone else there? Looking but not seeing! (Perhaps the other aircraft was making a straight-in approach, making it more difficult to be seen.) However, in future, I shall certainly be looking ahead more keenly, even at the end of my landing roll. The image of that aircraft, head-on, still on the ground, and so close, at a time when I was unable to take any avoiding action, will be with me for a long time to come.

It was only after the incident that I discovered that I had used the wrong radio frequency. It has caused me much anguish, and in future, I shall certainly make sure that I have the latest guide as soon as it is published. In effect, I had arrived at the farm-strip as a non-radio aircraft, and believe that my positioning was still appropriate and safe. The question of 'look-out' remains.

CHIRP Comment: **This near collision highlights the inherent danger in using an out-of-date Flight Guide. What is the cost of a new Guide in comparison to that of a serious accident?**

Up-to-date Frequency Reference Cards are available to download from the NATS AIS website/VFR Charts/ Frequency Reference Cards; if your destination isn't included on the list, check the airfield website or make a telephone call before departure.

It is also worth noting that in calm conditions similar to those reported, it is always possible that a non-radio aircraft might use the opposite runway; therefore during the base turn and final approach, check that the opposite approach path is clear.

ANYTHING TO REPORT?

Due to associated costs, we no longer include report forms with GA FEEDBACK. If you would like to submit a report to CHIRP, you can do so by submitting an electronic report via our secure website www.chirp.co.uk, download a report form from our website and post/fax it to us, or telephone us. (See P1 for our contact details).