GA FEEDBACK

No: 21 Summer 2004

RIGHT OF WAY – DEAD RIGHT?

The report 'Right of Way' published in GAFB 19 (Feb 2004) involved a near collision between a light aircraft and a glider. The following comment is worth considering in relation to such incidents:

The reporter *(the glider pilot)* seems to forget that although there might be legal requirements to give way to gliders and moral requirements to look out for them, there are no requirements to see them.

Your comment about 'maintaining a good lookout at all times and giving right-of-way' also implies that looking out equals seeing. It doesn't.

If there had been a collision, the only pilot to blame would have been the one who spotted the other without doing anything. The glider pilot in this case. I fully agree with you that in this case the glider pilot allowed the two aircraft to get too close together, regardless who had right-of-way.

****

AVOIDANCE OF GLIDING SITES (GAFB 20)

In GAFB 20 (Page 2), we published a comment advising pilots to avoid gliding sites by passing upwind of the site. Subsequently, we received many comments from glider pilots, similar to the following:

I read your GA Feedback bulletins with interest and very much appreciate the sound advice contained in them. However, as a glider pilot and a tug pilot, I feel I must point out that your advice to 'pass upwind of gliding sites if possible' is not appropriate. Although it appears reasonable to assume that gliders will drift off downwind, in fact gliding activity is concentrated immediately overhead and upwind of gliding sites. Aerotows always proceed upwind and may deposit the glider two or more miles upwind. Glider pilots who do not have their cross-country endorsement will be told by their instructors to avoid going downwind at all. They are required to fly only in locations from where they can be certain of being able to glide back to the airfield, and this 'early pilot's airspace' is a cone of air extending upwards from the site and leaning markedly to windward. Cross country glider pilots will take off in any direction and may be found a hundred miles or more from their site.

As our gliding expert on the GA Advisory Board noted, "You got it wrong, Editor". Yes, I did. Apologies.

****

BLOCKED DRAINS

I had completed the first check of the day on a Cessna 150. I was preparing the aircraft for an instructional flight.

I began to taxi the aircraft and tried the brakes. They were fine but I heard the slosh of water coming from behind me, in the airframe somewhere. I continued to the refuel pump and shut down.

On looking around, I rocked the fuselage and it became obvious the rear fuselage was full of water, although the cabin was dry. I looked underneath for the drains and unblocked them using a fuel sample tool, fitted a treat. The water ran free for about half an hour, so a lot of water.

The ramifications of flying are obvious, Weight and Balance, handling problems etc. Also, it did cross my mind that had I crashed, the evidence left in the ground may not have shown up, even evaporated.

It had rained heavily the previous day and the aircraft is kept outside, the only entry point I can think of is the rudder area. Also checking the drains is not a published check item. I think it should be included, especially as a standard fuel sample tool fits well. It will be checked at our school from now on.

I hope this will be of help to somebody.

As the reporter notes, attempting to get airborne with a substantial amount of water in the fuselage could lead to serious performance and/or handling difficulties including a total loss of control.

This problem can occur in other GA types. If your aircraft is parked outside, it is worth reflecting whether water ingress is possible and whether your pre-flight checks would detect a similar problem.

****

A General Aviation Safety Newsletter

from the Confidential Human Factors Incident Reporting Programme

CHIRP, FREEPOST (GI3439), Building Y20E, Room G15, Cody Technology Park, Ively Road, Farnborough GU14 0BR **Free***fone*:(24 hrs) 0800 214645 Fax 01252 394290

Confidential@chirp.co.uk - visit our website at www.chirp.co.uk

TAKE OFF CONFUSION

While instructing a PPL student I inadvertently took off on Runway 08 while the active runway was 26 - the take off point was the runway midpoint intersection. The wind was close to the 17kt limit across but favouring 08.

While lining up, I asked my student to confirm that the active R/W was 08 (leading question). He confidently said it was.

After ATC invited me to call them upon landing I asked my student to check the clearance written on his clipboard - that said runway 26! ATC were very good.

This report is a classic example of how the phrasing of a question may lead to a less experienced pilot providing a confirmatory but incorrect response; this situation may occur more easily in an instructor/student relationship.

****

MORE TAKE OFF CONFUSION.

After taxiing to the hold for 06 and carrying out the power & pre-flight cabin checks ### AFIS cleared me for Take Off at my discretion on the grass Runway 06 which lies to the North of the main asphalt 06 Runway. There were no runway markings at all (except the threshold numbers) and the grass had been freshly cut leaving a clear direction of mowing.

I acknowledged the 'Take off at your discretion' message from the FISO and after checking that there were no aircraft in the circuit I commenced the takeoff roll and announced my departure. At this point we had difficulty in finding the runway threshold numbers but eventually located them. I then made an error in not checking the DI and compass accurately and lined up with the DI showing 06. As the aircraft was reaching rotation speed I noticed that I was intersecting the main asphalt runway at an angle of some 15° and immediately applied a further stage of flap which lifted the aircraft clear of the runway. Realising my heading error, I quickly returned to the correct departure from the grass 06 before the airfield perimeter and was able to comply with the noise abatement departure procedures. ATC were soon on the radio questioning whether I had read the AIC for the non-use of the Asphalt runway which was not in use on this day. I replied that I had and apologised for the take off saying that, as there were no runway markings and no obvious aircraft tracks, I had departed with a 15° runway error. They came back very contrite and asked if the grass mowing direction was a contributory factor which it definitely was.

Although there were no real problems, several factors that contributed to this incident may be apparent.

1) The need to check the DI against the compass accurately (it had precessed by some 15° on the flight to ###.

2) The need for an airfield to ensure all grass runway mowing is carried out parallel and along the runway not in this case diagonally

3) The need to put temporary runway markings down or at least bring the departing pilots attention to lack of runway markings and to take no notice of the grass mowing direction.

****

AIR DISPLAY NOTAMS

I was Duty Pilot for the air display at ###, for which a NOTAM had been issued. Whilst I was on watch, three aircraft flew through the protected airspace. The duty log showed that two other aircraft had infringed the airspace earlier in the day, but still during the time for which the relevant NOTAM was active.

Discussion with the Airfield FISO, backed-up by the duty log, confirmed that this was a regular occurrence on previous display days. I also remember that in 1998 I had an AIRPROX incident during a display.

It seems that the current NOTAM system is failing to protect airspace in the way that it should.

First, it is every pilot's responsibility to check NOTAMs prior to making a flight. This report indicates what might happen if you don't.

Ask yourself - What is a NOTAM? Why do I need the information? How can I obtain it?

NOTAMs can be obtained from the NATS AIS website at www.ais.org.uk. Registration for the service is free and take time to read the guidelines.

****

RADAR INFORMATION SERVICE

Receiving a Radar Information Service from ### - level 4000ft on track 188° inbound to the AAA NDB *(Class G airspace).* Was informed entering an area of high traffic density. ATC informed working primary radar only so was squawking 7000 Mode C as SSR was u/s. Was informed of other traffic in 11 o'clock position. Believe other traffic informed of our position. I looked for the other traffic which did not become visual until less than ¼ nm in my 10 o'clock slightly below. As per Rules of the Air, maintained track/heading and made the decision to maintain 4,000ft as any manoeuvre could have aggravated the risk of collision. The other traffic was a blue and white PA 34 (Seneca). Reported the incident to ATC right away.

The controller reiterated the fact that both aircraft involved had been informed of each other's presence and I acknowledged this as correct.

In my opinion, a much clearer warning could have been given by the controller by including the word "converging" in his report of the other contact. Better yet, had he indicated "converging similar level" the warning would have resulted in a change of heading and altitude to avoid this contact.

It is important to remember that when receiving a Radar Information Service (RIS) ATC will inform you of the bearing, distance and, if known, the level of conflicting traffic that he/she is aware of. When using Primary Radar without Secondary Surveillance Radar, the controller is unable to display Transponder information and thus might not know the altitude of conflicting traffic. However, in the case above, if the other aircraft was on the same R/T frequency, it would have been helpful if the controller had provided more information, as the reporter suggests.

Operating with a RIS is an aid to a pilot's lookout; the pilot remains wholly responsible for maintaining separation from other aircraft whether or not the controller has passed traffic information. If in doubt as to the position of a possible confliction, ask the controller for an update.

****

R22 Engine / Rotor Overspeed

Pre-flight external checks were completed. Pre-start, start and pre-flight checks completed as per checklist in Flight Manual.

Having received ATC clearance to lift and re-position to departure point, confirmed that frictions were off, governor on and, as collective was raised, further confirmation that governor was holding revs at top of green.

Student (approx 30 hours PPL H training and CPL/IR (A)) lifted aircraft into hover with me guarding the controls. On scanning instruments after lift off, I noticed that the engine and rotor rpm were above limits. Upon taking control from student I rolled off the throttle and landed immediately, on doing so noticed that governor still on and seemed to be working normally. Upon landing completed shutdown checks as per Flight Manual.

In discussing incident with student afterward he seemed unaware that he had done anything different from normal. It had been one month since his last flight, I can only assume that he tensed-up on take-off, gripped the collective tightly enough to override the governor or indeed inadvertently wound on the throttle (although I detected neither from guarding the collective on my side).

I intend to reinforce briefing on the governor with students in future and be alert to such eventualities in the future. I wonder if some kind of alerting system for high engine/motor rpm could be usefully incorporated? I confess to be surprised by the apparent ease with which the governor was overridden.

The ability to over-ride the governor in the manner described is a known characteristic of operating this aircraft type. All instructors and students should be alert to this possibility.

****

Landing Under Pressure

I hold a PPL (A) and have approximately 140hrs total time mainly on fixed wing with around 10hrs on Flexwing both on a Quantum and a XL which I had recently purchased.

At the time I was undergoing 'Differences Training' and had 3 hours solo in the XL. Having had an hour in the morning in the local area practising engine failures, I returned to ###, completed several circuits, landed and retired to the club house for a coffee and a chin wag.

The windsock seemed to be picking up a touch so I decided to have another hour, this time in the circuit to polish my landings.

On taking off I noticed that it had become somewhat choppy with some mild thermal activity. The first circuit was completed with no problem. On the second circuit I turned onto finals to see the instructor and a student holding in the engine run area. (I am sure this has been felt by many, but you suddenly feel the pressure is on not to cock up !) Anyway I had not fully taken into account the change in wind speed which resulted in my approach being too low and too slow, however I must have been subconsciously distracted by the instructor looking on.

It still looked OK to me, speed showing 45mph, however once over the threshold at about 20 feet the left wing dropped and the XL seemed to fall out of the sky onto the runway on the rear left wheel; we then bounced quite high, the nose pitched forward and down onto a heavy nosewheel landing. Luckily the wing didn't hit the ground but I could see the front undercarriage box-section had failed and the whole thing had been pushed back some way.

More was to come! On taxiing downwind to the hangar with a huge dent in my pride and my wallet bracing itself for the imminent raid, I started to apply the brake to park, but due to the undercarriage being pushed back so far the brake bar would no longer reach the tyre ! I cut the engine only to find I was still being merrily blown along. There was no one around, so I steered the XL between the hanger and some parked cars until we rolled to a stop 2 thirds the way down the hangar!

Going over the whole thing in my head later it is clear I should have `Gone around' and it would certainly be prudent after any heavy landing to check your brakes before you are anywhere near where you want to stop !

BMAA advise that the two aircraft on which the reporter was undergoing differences training have significantly different capabilities in strong wind conditions. Whereas the Quantum can cope with winds of up to 20kts the XL, a second generation flexwing design with a curved sail, is more difficult to handle in winds above 10kts.

Thus, the reporter's decision to fly in the increased wind conditions, given his limited flexwing experience, was questionable and he might have considered landing from the first circuit. Also, BMAA advise that the approach speed quoted in the report (45mph) should have been 50-55mph to maintain control authority, particularly in the wind conditions reported. (Flexwing approach speeds are normally higher than cruise speed). Flying the approach at 45mph rendered the aircraft vulnerable to a stall in any windshear; this appeared to have happened.

The reporter correctly questions the wisdom of taxiing having incurred damage to the nose wheel.

****

FLAT BATTERY

During the Daily Inspection of a motorglider, it was discovered that the Master Switch had been left 'ON' and the battery was completely flat.

The engine was started using an external power supply and during engine running, the aircraft voltmeter registered 14 volts input.

Shortly after take-off, the generator circuit breaker popped out causing failure of the main electrical supply and an immediate precautionary landing was made.

Further examination revealed that the battery was defective and would not take a charge. The battery was replaced and all systems tested 'satisfactory'.

As has been pointed out previously, do not attempt to fly with a flat battery; the probability of a subsequent electrical failure and/or a battery overheat condition, which can cause a fire/explosion, is high in such a situation.

****

PRECAUTIONARY LANDING

After a total of 2¼ hrs flying I departed AAA in my Cub for my home airfield. There was a slight smell of hot oil for 10-15 mins, which then became visible as a thin blue oil smoke in the cockpit. The smell was of oil vaporising on a hot surface. A PAN call was made on ### Radar declaring a landing at BBB - a disused airfield from which ### Police operate their helicopter and a safe landing was concluded on a disused taxiway. On finals the thin blue smoke disappeared leaving only the smell.

A careful study of the engine and seals was made and no oil leak was found, no oil had been lost since leaving AAA and no oil had spilled on any recent oil replenishment. Engine oil pressure and temperatures had been normal in flight.

I decided to fly home (another 15 mins) since if anything deteriorated I can land the Cub safely in almost any field between BBB and my home airfield; this was probably poor airmanship. There was no more smoke only an oil smell and the aircraft is currently grounded pending an engineering report.

Radar was very helpful giving surface wind and informing the Police Unit.

The subsequent engineering investigation confirmed that a small amount of spilt oil had eventually migrated onto the exhaust, giving the reported symptoms.

It would be easy to criticise the reporter for electing to fly home, as he himself comments. However, there is no simple answer in a situation such as this.

He took the correct actions on encountering the problems, carried out as thorough a check as possible, considered all of the options and determined that the risk was acceptable with his level of experience, which is considerable. The same might not have been appropriate for a less experienced pilot.

What would you have done?

****

UNANNOUNCED ATZ PENETRATION

It was a zero wind day and the student was in control of the aircraft for a landing on runway ##. The approach was too high and at 400ft a go-around was initiated.

At this point we noticed a tail dragger flying at about 1,000' on the opposite heading to the runway passing through the ATZ only about 50m to our left. AAA Information was informed but had received no radio call from the a/c.

Inadvertent entries into ATZs are not infrequent. Never penetrate an ATZ without permission, even if you don't receive a response to your R/T call.

****

ACCIDENT TO REPORT? Call AAIB: Tel No: 01252 512299

AIRPROX TO REPORT? Call UK Airprox Board: Tel No: 01895 815121/2/5

OCCURRENCE TO REPORT? Call CAA Safety Information Data Department: Tel No: 01293 573220