



GRAPEVINE

The Services Region Flight Safety Bulletin - July 2002

WING DROPS & WINCH LAUNCHES

A Discus accelerated into the winch launch ground run with a slight bow in the cable and a cross-wind component of about 10 kts. While the glider was still on the ground the right wing touched the grass surface and stayed there despite the pilots left roll input. The glider lifted off (the cable still attached), yawed around the right wing and hit the ground in a steep nose down attitude travelling backwards and sideways. The glider was very seriously damaged, particularly around the cockpit area, but amazingly the pilot suffered just a graze on one leg.

A few days before, a Ventus 2 also accelerated into a winch launch with a bow in the cable and a cross-wind. The right wing went down into the grass and the pilot pulled the release. The glider came to a halt pointing 60 degrees to the right with no damage.

Here are two very similar situations with very different outcomes. The key difference is that the Ventus pilot clearly remembers making a positive decision to start the launch with his hand touching the

release knob, and was in no doubt about his decision in the event of wing going down. Some glider releases are difficult to reach, particularly with left roll applied - its probably good advice to save time by having your hand on or touching the release.

It may be worth thinking about the bow in the cable and the crosswind elements to these and many other launching incidents/accidents. Some of us have to operate in crosswinds, but a crosswind AND a bow in the cable? Perhaps that's a good time to refuse the launch and then persuade someone to tow the cable out in a straight line.

"CANOPY CLOSED AND NOT LOCKED"

A K13 whizzed up a wire launch and the canopy opened. The solo pilot managed to grab the canopy frame and land safely. The canopy Perspex and frame were damaged.

The owner club pointed out that it is possible to oval the canopy shoot bolt holes on K13s by resting the unlocked canopy on the catches leading to a difficult to lock canopy. Another club has spotted that if the front seat pilot just pushes up on the

front of the canopy frame to check 'does not yield to upward pressure', there is enough weight and friction to give the impression that the canopy is locked. It may be more beneficial to carry out that final check by attempting to lift on the canopy frame below the DV panel or around the locking mechanism.

THAT'S NEW!

A Ventus C pilot attempted to release from an aerotow. Despite pulling the release knob numerous times, the rope stayed firmly attached to the glider. The tug released the rope from its end and the glider landed safely into the airfield trailing the rope.

The release on this 8 year old glider was working normally - the large ring on the Tost ring set had jammed in the in the nose hook orifice. It took a considerable amount of force to rotate and extract the rings. Subsequent checks with other ring sets produced the same result - the large ring could jam vertically between the pitot and the bottom of the hook orifice. The problem was resolved by filing out a small amount of gelcoat thus restoring the necessary clearance.

CHIPMUNK SEATS

The RAF engineering safety guys occasionally refer to a design "Murphy" - a Murphy is any situation where if it can go

wrong, it will - and try to ensure that aircraft equipment that regularly gets dismantled for maintenance purposes is designed to only go back together one way.

A tug aircraft rolled away from a tow and started the descent when the pilot heard a clunk closely followed by an un-commanded pitch input, followed by limited stick movement in pitch. The aircraft was recovered with a combination of power and the limited up elevator that was available. After landing, the rear seat base wooden insert was found jammed behind the stick.

Some civilian registered Chipmunks have an easily removable seat insert in the front seat so that in the event of flying without a parachute the seating position is about right. The rear seat also has an insert that is usually fixed into the seat. Unfortunately, and here's the Murphy, the seats are interchangeable, and so the fixed insert seat can end up in the front (no problem) but the removable insert seat can end up in the back (bad news - see above).

COOL! CAN I HAVE A GO?

An experienced instructor had demonstrated a couple of loops to a very keen pre-solo student. On a subsequent soaring flight, the instructor asked the same student if he would like to try another loop himself. After the student had described how the manoeuvre should

be flown and the usual HASELL checks had been carried out, the student got on with it. At 95 kts, the student eased back initially but then suddenly pulled the stick back hard. The somewhat surprised instructor took control and completed the loop.

Fortunately the K21 coped and was not flown outside of its flight envelope. However, the incident reinforces the point that 'following through' isn't just a survival tip for instructors near the ground!

WANTED!

Like all other bulletins eventually do, Grapevine needs a new editor with some new ideas. Any Service gliding person interested in taking it on should e-mail petestratten@hotmail.com

THINGS THAT GO BUMP...

An Ls6 pilot found himself approaching into a field on a lee slope. The landing was firm and the undercarriage collapsed causing damage to the fuselage.

The pilot commented that the 55 kts he used was probably inadequate in the circumstances.

A Cirrus pilot landed on an airfield quite normally, but then overran a hidden hole in the grass surface. The glider bounced up, the pilot banged his head on the canopy and

he was knocked out for a while. No other damage or injury occurred.

The syndicate had been utilising a 50mm dynafoam cushion that gave very little headroom for some of the pilots. They have taken qualified advice and reduced the dynafoam to 12 mm.

UNDERCARRIAGE WARNING

A glider flown by one of the UK's top competition pilots was spotted late on a straight in final glide with the wheel up. A 'helpful' onlooker called on the radio. The pilot reacted by letting go of the airbrakes to lower the gear, but then lost control and impacted the runway severely damaging the glider fuselage. The pilot was unhurt.

In previous Grapevines, comment was made about the danger of warning pilots about a raised undercarriage when established on the final approach to land. Generally speaking, the view is that landing gear up usually causes less drama than a last minute swopping of grips and levers that invariably results in a few seconds of uncontrolled flight.

ERGONOMICS?

An ASW19 pilot inadvertently operated the landing gear lever during an approach instead of the airbrakes. The glider was seriously damaged in the subsequent ballooned landing(s) and eventual off

airfield 'arrival' after running out of runway ahead.

This is a common problem with this type of glider where the gear and airbrake levers are close together, particularly of course when there are distracting factors preventing the pilot from looking at the lever before pulling it (the best way to avoid a slip like this).

One Pegase syndicate have provided themselves with a 'modification'. After lowering the gear, they then fit a small wooden wedge (restrained by a bit of cord) into the gap between the gear handle and the remaining space in the 'down' detent. This helps prevent the lever moving again if the pilot subsequently makes a blind grab for it on finals.

NESTING K21

A newly qualified Basic Instructor was flying a K21 on a trial lesson and was towed through a large shower. The P1 elected to release while flying in heavy rain and near zero visibility, and very soon became disorientated. With no other options obvious to him, the P1 landed the glider on top of 40' trees, where the glider lodged itself firmly resulting in no injuries to the crew.

The CFI of the site where this accident occurred has stated that gliding needs to

be far more proactive in supervising and teaching new instructors and tug pilots.

He's right. Blaming the guys involved isn't going to help - either pilot could have waited for the storm to pass, the instructor could have asked the tug pilot to tow in a different direction or released clear of the rain, or the tug pilot could have held the launch. They didn't deliberately contribute to the crash - they just didn't know any better.

When the weather is tricky, experienced tug pilots can offer guidance to inexperienced glider pilots, and conversely experienced glider pilots can usually point inexperienced tug pilots in the right direction. Providing either party is willing to swallow their pride, it's a good way to learn.

However, the balance of experience doesn't always work out like that! So the only real defence against people who don't know any better seems to be to have someone on the ground supervising who does.

DON'T FORGET...

<p>Drinking water in flight helps to prevent dehydration, thereby significantly helping concentration & decision-making.</p>
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