



GRAPEVINE

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THE SERVICES REGION FLIGHT SAFETY BULLETIN

(The aim of this bulletin is to help prevent accidents, not to apportion blame) EDITED BY PETE STRATTEN

BREAK THE LINK

A glider was hooked up to the cable with the wrap around tail dolly still attached. The launch sequence progressed, but at the 'all out' phase the wingtip holder noticed that the dolly was still attached and shouted to stop the launch. Unfortunately, in the time the launch marshal took to signal the winch to stop and the winch driver to react, the glider was airborne. The cable back released at about 50 feet, the pilot failed to recover adequately and the glider stalled-in causing substantial damage.

There's no doubt any pilot should be able to land safely from a launch failure at any height - that's primarily a training issue. However, the glider should not have been hooked up to the cable with the tail dolly attached, and giving a 'stop' signal with the glider airborne is probably not advisable unless the glider is at a 'safe' recovery height. Remove any link in this training/supervision/procedure chain of events and the glider would probably have not crashed.

OUCH!

A GRP two-seat glider was approaching to land on an airfield in gusty conditions and with water on the wings. Despite an approach speed of 65 kts, the glider landed heavily, jarring the backs of the instructor and the P2 on his first glider flight.

Gusty conditions can be tricky enough, but add wet wings and life can become very difficult indeed. If the weather is rough and there is a likelihood of flying with wet wings, perhaps it's worth reassessing the risks. You may decide not to launch.

AUTUMN BLUES

Early sunset times - beware the last few flights, and in particular so called 'hangar flights' where pilots are landing in unfamiliar parts of the airfield in poor light levels. CFI's should think about the legal implications of glider pilots attempting to fly during official night.

Approaching into the setting sun – poor forward visibility into sun has led to mid air collisions and landing accidents with gliders, motor gliders and tug aircraft.

Rain – winch-launching gliders with wet wings is foolhardy. A wiper blade and 5 minutes of time can work wonders. Marginally powered aircraft (most motor gliders) will not climb adequately with wet airframes. Forward visibility is dramatically impaired in all aircraft even in light rain. Snow and ice can produce even more dramatic results.

Airfield Surfaces – aircraft and cars skid on wet grass. Longish wet grass will seriously extend take off distances. Wet feet are cold feet, particularly at altitude...

Cold People – people do not perform well when cold! Wind chill on airfields can drop temperatures to dangerous levels. A student will not learn very much if his teeth are chattering, and people on a freezing, windy airfield are more likely to make mistakes.

Wind – every year there are more pilots who get caught out flying in winds that are stronger than they are used to. Good airmanship includes briefings and suggesting check flights. A well flown strong wind circuit at most hill and mountain sites bears little resemblance to a casual float around a typical flat site circuit in mid summer.

Canopies – if you cannot demist most of your canopy, then don't launch. Keeping it clean may help.

"IT'S REALLY EASY TO FLY..."

How often do we hear how pilots love the latest breed of gliders that seem to have 'carefree' handling? We can lurch around the sky experimentally in pre-stall buffet with the stick well back, the ailerons still seem to be responsive and we're left with a 'nothing can possibly go wrong' warm feeling about that particular type that soon turns into complacency.

Uh-oh. It's far too easy for any of us to be lulled into a false sense of security unless we really get to know the glider. One option is to get briefed and set out to deliberately spin the glider. We soon see that when it departs, it does so suddenly, accelerates like hell in the recovery and can easily lose us 500' of our precious height. Potentially exciting stuff and so lots of pilots don't bother...

...Option two is to not bother practicing. Just continue to kid ourselves that the glider won't bite, wait until we're flying the same glider with the C of G in just the 'right' place, perhaps with a touch of fin water on board, and then either pull a bit hard on a winch launch or fly a bit too slowly in turbulence. This option is also very exciting, but not very educational for the pilot – it tends to be a fatal experience.

Learn to recognise & recover from the onset of un-commanded roll in every glider you fly.

SAD NEWS

An LS8 pilot died in an accident resulting from some kind of winch launch failure at a few hundred feet. At another site, an ASW19 pilot was seriously injured when he entered a spin during a winch launch and dived into very soft ground. Another pilot was killed when his glider was seen to spin from a winch launch. Of course there are investigations underway for all these tragic accidents, and Grapevine makes no comment about the 'how and why' of those particular cases. It may, however, be worth pausing for thought...

*In a significant number of previous cases of gliders spinning-in after launch failures, the spin has resulted from the second turn during the recovery manoeuvre. The "departure from a failed winch launch" exercise is excellent and a great way of reinforcing the fact that the flying attitude is often misleading, but let's not forget the other important detail of accurate flying and airspeed monitoring in all phases of flight. Not spinning from the launch failure initial recovery is clearly a good thing, but unless the pilot then continues to check the airspeed and balance while positioning the glider for a safe landing, we've only won half of the battle. Whatever the distractions or pressure, above all **fly the glider**.*

NOT EVERYONE CAN JUGGLE

Do your instructors teach appropriate minimum winch launch speeds and is the subject discussed during type conversions? The stalling speed can increase by up to 40% of the unaccelerated value during a winch launch, and a Ventus ct, for example, will need a much higher minimum speed as it climbs up the launch than, say a Junior or a K8. Obvious? Maybe to you, but not to the new guy!

Winch launching is a bit of a juggling act between the available speed and the amount the pilot loads the wing (ie. pulls back). On a winch launch we can't feel how much we're loading the wing, so to take the guesswork out of it we follow some basic but valid guidelines:

- *Be ready for rapid acceleration and never allow the glider to climb steeply near the ground.*
- *Know the minimum winch launch speed for the type of glider you are flying. Be prepared to abandon the launch if the airspeed is close to the launch minimum.*
- *Even when at a 'safe' height and speed, never climb more steeply than the 'normal' (a ball park 45 degrees) climb angle*

Don't forget the basics!

ALL WRAPPED UP

During an aerotow training launch, the instructor allowed the student to get out of position and failed to take control in time to prevent a bow developing which snapped straight, breaking the rope weak link. The rope snaked back and wrapped itself around the port wing and fuselage with the remaining rope weak link hardware rattling around at the rear of the glider. Concerned about possible damage occurring to the tailplane, the instructor immediately dumped the rope into open countryside. The glider landed normally from the pre-planned 'eventualities' recovery.

Late takeover is a problem in any phase of flight. But in this case, having been 'dropped in it' by his own mistake, the instructor did the right thing - safety of the crew is the number one priority. But if the rope just hangs underneath the glider (more normal in a rope break situation) and there is height in hand, the rope should be dumped into a clear part of the airfield.

NEARLY...

A K13 flown by an early solo pilot was approaching to land into a strong breeze onto a very busy and wide airfield landing area. A tug aircraft, flown by an experienced pilot, was approaching to land slightly lower and to the right of the glider. The tug pilot was intending to head off for fuel after landing and was approaching slightly across the direction of all the other traffic. The two aircraft, unseen by either pilot, were about to collide.

The duty instructor was monitoring events on the airfield and immediately called the tug on the airfield frequency, directing the tug to turn right. The tug turned slightly right and landed normally as the K13 landed OK just to the left of the tug.

Wow - that was close. What went wrong? Neither pilot saw each other - try to picture the scene and imagine why. The K13 pilot with limited capacity was focussed on the landing area ahead, the tug pilot was unable to see through the high wing in a banked attitude, and crucially, the tug was flying an UNUSUAL approach, crossing the path of the other approach traffic.

*In nearly all midair collisions, one of the aircraft was doing something unexpected or was in the 'wrong' place. Sticking to tried and tested airmanship principals and fitting in with the other local circuit traffic 'procedures' will help with collision avoidance. If you must do something out of the ordinary, use the radio, be extremely cautious, assume the worse and as always, **LOOKOUT**. Fly to reduce the midair collision risk - don't add to it!*

Club management - do you regularly review your club procedures? Operations at some gliding sites could be politely described as providing the right environment for an accident to happen.