LSC Safety Report - 2018

Operational Statistics

Launches: Winch 112 **Aerotow** 14
Active Pilots: 10
Flarm: 2 in private ships

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Incidents

2 x Prolonged Solo Touchdown in Grob 103 Trainer

- Considerable wind down runway
- Hangar landing
- Experienced pilots who rarely fly solo in G-103
- Case 1: Pilot approached at 70+ kt full spoilers, eased spoilers in flare, glider touched down and lifted off twice. On second bounce, pilot closed spoilers to stabilise and avoid airspeed decay, then eased on spoilers to normal landing on third attempt.
- Case 2: Wind was 5 gusting 15 from approx. 230 at the time of the last flight. Pilot had an uneventful launch and circuit. Final turn at 300ft just between the threshold and the fencepost corner for runway 21 and pilot announced landing long [before 21-11 intersection] to return to the hangar [off 11], pilot had a stable approach with 1/2 spoiler and reduced it to about 1/3 spoiler as he rounded out. Main wheel touched down gently and as he added full spoiler, a large gust came and ballooned him up approx. 30 feet. Pilot recalls approach speed 65kt, touchdown just below 60, after balloon was still at 56kt (yellow triangle). Pilot immediately leveled the wings and closed spoilers, noted airspeed and that he was was now pointed directly at the hangar. Pilot chose to lower the nose (anticipating a lull), and then turn slight right to avoid the hangar and aim more into wind. Pilot maintained coordination, estimated bank of 10 to 12 degrees, and glanced at right wing tip to notice it appeared only 5 feet from the ground. Pilot was ready to immediately level wings if he felt any change. After level off was headed about 15 degrees to the right of the hangar, touched down just past the start of the intersection and came to a stop just off the right edge of runway 11 with a heading approximately 260.

- When flying solo in G-103, it may be prudent to set up and maintain at least 1/2 spoiler and keep it on during roundout and flare especially in gusty conditions. Be ready to

lower the nose once the wheel touches to keep it down and make it resistant to ballooning in a gust and it will increase brake effectiveness. Alternately, a fully held off landing that works best in non-gusty conditions may be used in gusts but you may be ballooned and will have to readjust spoiler a bit to avoid a harder landing. Both of these require a good feel for the glider and both require current experience in gusty conditions to execute well.

- **SO Comment:** The G-103 has small spoilers and generous wing area similar to some other trainers. Reducing spoilers in the flare coincides with the onset of ground effect. A gust can put the glider back in the air with low airspeed and the possibility of a heavy landing. Both pilots promptly closed spoilers to avoid airspeed decay. Significant extra runway can be consumed. Consideration can be given to performing the first landing with full spoilers and forward stick after touchdown to perhaps prevent liftoff after touchdown.

Other

- Wing runner on phone while glider was being towed on the ground. Driver stopped until phone put away.
- Oversized drogue chute was offered for second drum on winch. Research showed size unacceptable for winch operation.
- Landout in recently tilled field encountered upslope not seen on downwind because of lack of contrast. Fortunately ground was very soft. Surprises always possible in a field.
- Gliders and towplane put away in hangar in good time while thunderstorm approached. We were monitoring on weather radar as well as visual. Members then got wet helping visiting pilots derig.

Stall and Recovery on Slow Winch Launch

- **Pilot's Account**

I was PIC of the Ka-6 for my first flight of the season on it while at summer camp. In short, I got too slow on winch launch, with a stall and wing drop that had to be corrected, followed shortly after by a weak link rope break at 400 feet.
I have a number of observations after personal reflection.

1. Preconceptions can be dangerous. In prior flights with the Ka-6, I'd had winch operators sling me way too fast, very quickly, and had trouble getting to an appropriate winch speed. This time, I clearly asked the winch operator to keep things slower and gave him a speed I thought would accomplish that. This actually worked ok for the initial climb, but worked against me when I pulled into a steeper climb passing 200 feet.

2. The rate of speed change is just as critical as the particular speed at any one point in time. My initial decision to begin a steeper climb coincided with a note that the speed was dropping

(decreasing rate). I called for more speed from the winch, expecting that to solve my problem while I lowered the nose slightly. In the time it took to thumb the mike, make a request, and wait for speed, the speed had dropped enough for a stall.

3. Emergency procedures have to be instinctive and come from muscle memory not conscious decision making: My stall coincided with a wing drop. My reactions (stick forward to lower nose, opposite rudder to counteract the wing drop) came from somewhere "deep inside" if i may get melodramatic...there would not have been time for anything but. As I lowered the nose, I was hit by a flight computer that came out of it's mount due to the negative g. That distraction would have been extremely dangerous as well if I had been trying to think of a reaction, instead of performing it automatically.

4. Know your Options before takeoff: Once in stable flight, at approach speed, and level at 400 feet I remember clearly seeing (I like to visualize) my response to a rope break between 300-500 feet, which was a left-turn into a modified circuit and looking for a reference point further down the runway than normal. Again, it happened almost automatically and gave me plenty of time and runway space for a safe landing.

5. Beware of fixation: At the very root of this whole flight, there was a fixation on speed. It started before I took off, in conversation with the winch operator. It stayed as I monitored the speed during initial climb, it stayed while I began a steep climb, to the point that I was calling for the winch operator to increase speed when I should have been lowering the nose promptly, and releasing. It even stayed as I hoped the speed increase I'd called for would help me out of the stall, and I finally let it go when the speed increase from the winch broke the weak link...

A final safety note from my training can be summed up by taking this order in flying. Aviate-Navigate-Communicate. If I had properly aviated, my nose down would have been enough to keep a safe flying speed, rather than trying to speed the winch operator up through communication.

Hope there are some lessons for everyone to learn here. This is a situation where I have the training to fly, and still let things get the better of me to the point of an emergency, which is never fun flying :)

I followed this flight up with a perfectly normal launch and landing immediately afterwards…

Safety Officer Comment

While winch speed can be used as a reference during the initial launch, tension is much more useful during the climb. That said, the optimal tension for a particular glider varies with the wind which changes as the glider climbs. I did not have an opportunity to interview the winch driver for this flight.