

Let's NOT go Fly a Kite

By Glenn Collins

I've been debating how best to write an article to describe and address a topic we have been beating to death for years, but continue to see occurrences. My fear is there is a point, where we desensitize folks and they stop listening. However, my recent observations highlight the drastically different situations where things can go bad all producing the same result. So let's give it a try.

The topic I'm addressing is once again kiting on tow. This is the phenomena where due to a pitch change, the glider rapidly accelerates vertically and functions like a kite. The result is an increasing load on the tow rope and a transfer of energy from the tug to the glider. Many associate this with getting high on tow. Although this is a contributor and will occur once the glider kites, it is not a precursor. Staying below the tug however is one of the ways to help prevent a fully developed kiting episode. So why after discussing this at multiple safety meetings and numerous articles am I bringing this up? This past weekend my club conducted 55 launches. Of these, there were three what I will call "incipient kiting" events. Two of these were at low altitude and would have fully developed into full blown events had the flight instructor not intervened. The good news is none of these resulted on a "premature release" from either end or the loss of a tug driver. However in all three, the tug driver reached for the release. I'll briefly describe each and you will see they all started differently. Keep in mind your primary job on tow is to fly the proper position.

The first event occurred on Saturday. I had a second row seat for this one. I was flying with a student in the ASK 21 launching behind one of the Pawnees. As we prepared to launch an airborne private glider announced his desire to land right after we departed to take advantage of the clear paved surface. Approaching our decision point to return to the field, the other glider made a base call. I commented if we needed to turn back, we should turn left since we had a glider off our right wing. This unfortunately prompted my student to look over his right shoulder in an attempt to see the glider. This distraction resulted in an immediate pitch up. I grabbed the controls and aggressively recovered. I never lost sight of the tug and do not believe we ever actually got above him. However, talking later with the tow pilot he recalled sensing his tail raise and reaching for the release. I'm thinking the sensed rising of the tail was actually a deceleration complement of our rapid pitch change. The whole event didn't take 2 seconds, scary.

Later Saturday, another training flight was being towed to altitude. This time they were above 1000' AGL. The student is in the early stages of flying tow. As is usually the case, this does not come easily and there was a lot of movement. At some point, the tug driver glanced in the rearview mirror and saw the glider rapidly departing a normal tow position. He reached for the release but before pulling it the instructor stabilized the glider. Needless to say the tug driver was rattled and mentioned it to me between tows. I connected the three parties and they discussed the situation.

On Sunday morning we saw the third of these events. It was another dual training flight. The student did the takeoff but lagged the tug's initial climb. Concentrating on getting back into

position the student was slow to recognize the tug's early left turn. This resulted in the glider flushing well outside of the turn. With the two aircraft restricted to a fixed distance (rope length) but the glider flying a farther distance, their speeds diverged and the glider accelerates forcing them high and to the outside. The tow pilot is immediately surprised when he feels a sudden deceleration. Again, as our tug driver reaches for the release, the instructor recovers the glider.

So there you have it. Three potentially disastrous incipient kiting events. But in reality none really have a lot in common other than each was a training flight. This commonality plays more to the fact the worst case was not played out thanks to a second set of eyes and the ability to recover. The first described event was clearly initiated by a distracted pilot. I would also offer improper trimming technique as a contributor here. Depending on the glider you're flying, trimming for the tow speed can help prevent pitch changes. If you can trim by feel; once stabilized at the desired airspeed, are you trimming the aircraft, even on tow? If your trim system is inaccessible or requires looking at it, do not attempt to change it on tow. Instead know the trim position for the anticipated tow speed. Memorize that setting and use it when you take off. Generally I find the "book" settings to be a little nose up. I attribute that to most of our tows being faster than the "book" calls for. The second instance is the least able to define or label. Most clubs do a lot of training. Training is a balancing act of immense proportions. Students can't learn if we don't let them falter or even fail at times. At the same time, we must keep the tug driver aware and comfortable. The last one is even more complex. Hard to identify a clear distraction other than 100% concentration striving to get back into position and missing the turn. Tug drivers can actually help a little here (it is in their best interest). Every towing instruction I've ever seen recommends not turning below 300' AGL. None say you have to turn there. I much prefer to keep my lift vector vertical longer, then before any turn, sneak a peek at the glider and ensure it is in position and stable before turning.

But when we get right down to it. Glider pilots; you are key to preventing these events. Use a written checklist so everything is properly set up prior to takeoff. No distractions! This means no changing of volumes, radio frequencies, closing windows or accessing camera while on tow. 100% of your attention must be ahead of you. Most of this is needed to maintain position and focused on the tow plane. We want and need you to help clear for traffic and conflicts, but this is done by looking through the tug not behind you. Each of us should think about these examples. Could it happen to you?