



## **Preventing Rollout Accidents**

By Burt Compton, SSF Trustee and Pat Costello, SSA Group Insurance Plan Broker

You are on final. Got your touchdown spot in sight. Airspeed? Perfect. Spoilers? Set for a moderate sink rate and a good angle to the runway. Traffic? You seem to be the only one in the pattern, and there is no one on the runway. Wind? Headwind is straight down the runway at perhaps 5 knots. Distractions? None. Tense? A little. After all, you've got a passenger who expects you to grease it on. Time to round-out. Adjusting pitch. Holding your breath. Touchdown. Perfect! You exhale. Your shoulders relax; as does your grip on the stick (do you know that feeling?). As you start to silently compliment yourself for a job well done, the left wing drops and the glider veers towards a small ditch left of the narrow runway. Bump. Bump. Bump. Then suddenly a thump as you come to an unexpected and unwelcome stop.

As you ask if your passenger is alright, you feel the hairs on the back of your neck standing tall. They feel like tree trunks. You notice your heart is beating faster, and that cold sweat (which can only come from being thoroughly embarrassed) begins to run down your forehead.

What the heck happened? You flew a great pattern. Everything was perfect on final. The round-out and touchdown was one of your best. Now your baby, your beautiful aircraft is damaged. Your passenger may never fly with you again and your pride---well, hurt is an understatement. The old "Any landing you can walk away from" saying just doesn't seem to cut it. What could have happened???

In a recent review of loss statistics for the past ten years, an anomaly was found. Not a big jump in accidents but a jump none-the-less in the category of "Rollout Losses". There was a marked increase in losses occurring after touchdown for both gliders and towplanes. It is as if the pilots stopped flying their aircraft the instant the landing gear met the runway. Exhilaration, followed by satisfaction, resulted in relaxation, causing complacency which ended in a preventable accident.

Of course, not all rollout accidents occur in this fashion. Some have mitigating factors such as gusting winds, a bad bounce, too much energy on landing, runway incursion and more. But it seems as if some pilots are thinking only as far ahead as the touchdown leaving the rollout to chance.

One has to wonder if reported losses during the rollout phase of landing is on the rise how many near-accidents are occurring? How many pilots just got lucky?

“Fly it to a stop” is what glider and tow pilots must do. Managing the energy of the rollout and noticing the “trend” of any amount of yawing or veering off of the centerline after touchdown is important. On a narrow landing area or off-airport landing work especially hard to maintain precise control, and even dodge a rock or gopher hole if possible.

Learning to keep the wings level can be practiced by “windjamming”, a term used for the old-school CFIG teaching technique that helps students acquire the skills to keep the wings of a glider near level to a complete stop on rollout or during the takeoff roll. This is practiced while stationary, clear of the active runway, with the glider pointed into a fair breeze, just enough to give the glider pilot some aileron authority. As the wind ebbs or gusts, the pilot must work the stick quickly but not roughly to keep the wings level, and use their peripheral vision to sense if the wings are beginning to dip or rise. Holding the airbrakes fully open during this stationary practice may make the ailerons more effective on some gliders.

Rolling out in a crosswind (and it is a rare day when you do not have some crosswind) requires anticipating exactly where the glider will stop as it “weathervanes” into the wind. Don’t leave it to chance! Thinking ahead, the pilot might adjust the “stop point” to finish the rollout early, where there are no obstacles, aircraft, people or vehicles on the upwind side of the landing area.

Uncontrolled swerving of the glider or towplane after touchdown can be the result of the pilot seeing a slight deviation left or right, then correcting by pushing hard on the proper rudder pedal. A problem occurs when the pilot keeps pushing, waiting for the correcting effect, then the glider or towplane swerves through the desired centerline track and off in the opposite direction. Flight instructors might teach pushing on the rudder pedal to correct the deviation of the rollout track, then neutralizing rudder and wait to see if the correction is working. This takes place in a matter of a second or two at most, as the pilot learns to “recognize and react” to any trend of the aircraft nose off of the desired track. This also applies after an aborted aerotow takeoff, where the glider deviates from the desired track due to a yaw into a crosswind, combined with a CG hook, or a wingrunner that shoved or held-back the glider wingtip.

Purposely rolling out to the very edge of the landing area, or towards the hangar, or to your glider trailer also increases the risk of an incident. Practice managing your rollout energy to safely coast to a wings-level stop to your pre-determined point, never relying on the small single wheel drum brake found on most gliders.

On every landing, a proficient pilot will anticipate what the aircraft might do after touchdown, especially in a crosswind (or downwind landing) rollout, and work hard to maintain absolute control until the aircraft's energy is finally at zero.

