

TOW PILOTS' CORNER

BY BURT COMPTON



THE STANDARD AEROTOW SIGNALS

History: In 1946, the national soaring contest resumed after the war years at Harris Hill near Elmira, NY. When the contestants arrived from across the USA, there was no single definitive signal to start the tow. Some clubs were using war-surplus semaphore flags, light guns or large green and red paddles to relay the "go" signal to the tow pilot. As the story goes, the launch grid nearly came to a standstill until a temporary solution was found. Later that year my father, Fritz Compton, began surveying the American soaring clubs to compile visual signals that only required using the arms and hands of the wingrunner, along with distinctive movements of the flight controls. No flags or light guns were required, and radio was not needed. Indeed no small, light-weight aircraft radios were available at that time. This group of signals that we still use today gave us a method to clearly relay intentions, from hookup to takeoff to release. Please keep in mind that my Dad did not necessarily invent these signals. He surveyed the clubs back in 1946 and compiled the results in order to publish a set of signals that American glider and tow pilots would recognize no matter where they flew in the USA. Some of the signals had a basis in the winch launch signals, such as rocking the glider wings to increase the tow airspeed. Leveling the glider wings before taking up rope slack also has roots in winch launch procedures. These signals and a wingrunner course can be reviewed at the Soaring Safety Foundation website: www.soaringsafety.org.

18 Standard Signals: Before endorsement as a tow pilot or before going solo as a glider pilot, you are required to demonstrate or recognize the 18 hand/arm motions and flight control movements that visually communicate the SSA Standard Soaring Signals. A radio can be used simultaneously if available, but we know that radio messages can be blocked by a stuck microphone key, or "stepped on" by another transmission. Glider and line crew portable radios use batteries that can fail. When using only radio, the person transmitting a message may never know if their message was received correctly. Use the radio if you have it, but use the standard visual signals at the same time.

The Regulation: Tow pilots and glider pilots should be aware of FAR 91.309 (a) (5) that states: "No person shall operate a civil aircraft towing a glider unless the pilots of the towing aircraft and the glider have agreed upon a general course of action,

including takeoff and release signals, airspeeds and emergency procedures for each pilot." Most of us assume that the FAA interprets this "agreement" to mean that the tow pilot and glider pilot have had training in the recognized procedures, the aerotow signals and a written or verbal orientation to the airport operations. Keep in mind that after an accident, the FAA has

been known to revert to a strict reading of the regulation, and may inquire as to the exact nature of the pre-tow "briefing."

Having each tow pilot and glider pilot physically meet before every tow is inconvenient, but then I've stepped out of my tow plane many times to discuss signals, airspeeds and procedures with a glider pilot prior to their first tow in their sailplane at our soaring site. Perhaps your soaring operation staff could document daily aerotow briefings and verify

that SSA Signals have been reviewed by all pilots and line crew. Your Ground Operations Director must insist on the consistent use of the recommended safety procedures and signals at the launch point. (You have a G.O.D. at your launch point, don't you?)

The SSF Signals Video: The Soaring Safety Foundation has produced a video titled "SSA Standard Soaring Signals," which brings to life all 18 signals currently in use in the USA. This video is available to SSA Clubs or Commercial Operators from the SSA Merchandise Department. Add it to your library and show it often to tow pilots, glider pilots and line crew. It is short, to the point and currently free of charge. At the end of the ten minute tape, video editor Kevin May inserted some brief color footage of my Mom with Dad, launching his LK-10A sailplane in 1946. (Thanks to June Wiberg for providing this piece of vintage film.) I wasn't born yet, but that year was the birth of the SSA Standard Soaring Signals. The SSA Directors thanked Fritz Compton in 1948 with the Warren Eaton Memorial Trophy, the highest award bestowed by the Soaring Society of America.

Fritz Compton is now in his 89th year, having gracefully retired from flying sailplanes and tow planes at age 83.

Contact Burt at www.FLYGLIDERS.com

—Burt Compton



Photo by Steve Hines



Check Controls
(Thumb moves thru circle.)



Open Towhook



Close Towhook



Raise Wingtip to Level Position



Take Up Slack
(Arm moves slowly back and forth thru arc.)



Hold
(Arms straight out and held steady.)



Begin Takeoff!
(Arm makes rapid circles.)



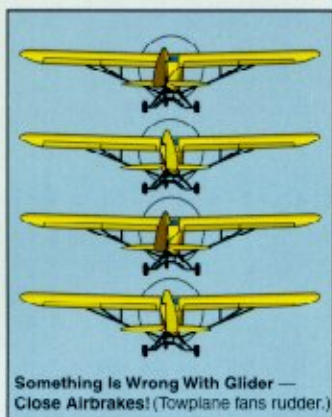
Stop Operation Immediately!
(Wave arms.)



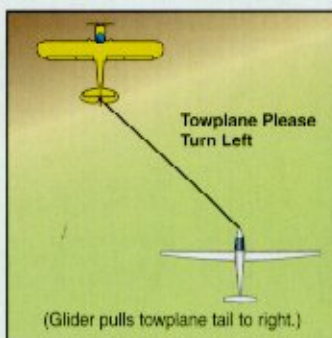
Stop!



Release Towrope or Stop Engine Now
(Draw arm across throat.)

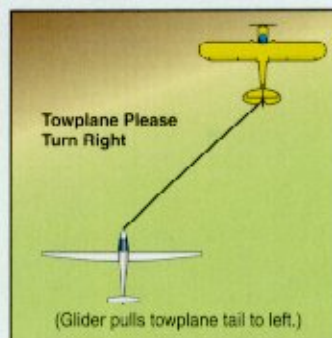


Something is Wrong With Glider — Close Airbrakes!
(Towplane fans rudder.)



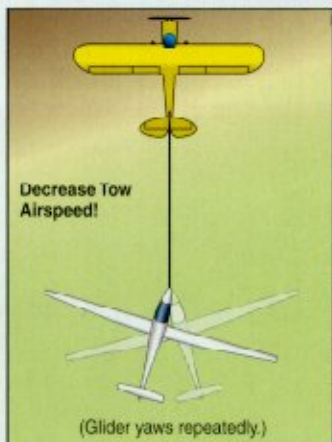
Towplane Please Turn Left

(Glider pulls towplane tail to right.)



Towplane Please Turn Right

(Glider pulls towplane tail to left.)



Decrease Tow Airspeed!

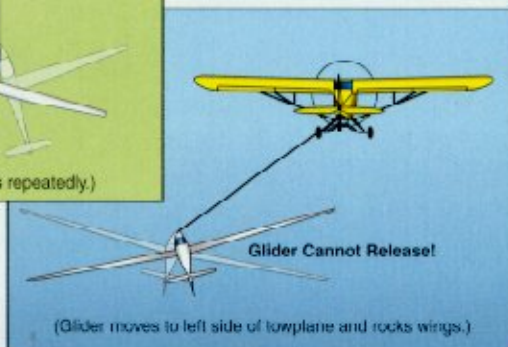
(Glider yaws repeatedly.)



Increase Tow Airspeed!
(Glider rocks wings repeatedly.)

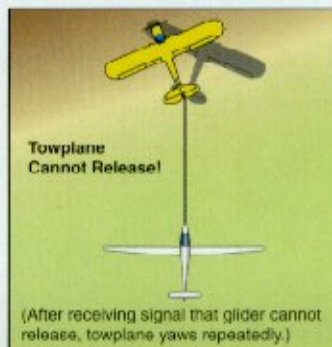


Glider: Release Immediately!
(Towplane rocks wings.)



Glider Cannot Release!

(Glider moves to left side of towplane and rocks wings.)



Towplane Cannot Release!

(After receiving signal that glider cannot release, towplane yaws repeatedly.)