

6 November 2012

CYPRESS SOARING, INC. SECURING AIRCRAFT

When securing aircraft, whether it is airplanes or gliders, there are several objectives. First we want the aircraft to remain in place and on the ground. Second we want to secure the controls so that the wind does not beat them back and forth creating excess wear or damage.

SECURING ON THE GROUND

- Chock the wheel(s)
- Tie the wings, nose on a glider and the tail.
 - High wing aircraft should be tied at the intersection of the lift struts and the wing (SGS 2-33, Cessnas, Piper Cubs, etc.)
 - Low or mid wing aircraft should be tied down mid-span if tie points are available (SGS 1-34, SGS 2-32, Piper PA-28 series, etc)
 - Wing tip tie downs are less desirable due to the stress placed on the wing in heavy wind conditions, but must be used if no other way is available. (Krosno, PW-6, etc.)
 - Secure a glider with the tow hook.
 - Tie the tail. The tail may be elevated to reduce the angle of attack of the wing and reduce the lift in a strong wind on the nose. It may be desirable to tie the tail from the sides to prevent movement with strong cross winds if a solid, short tie is not available at the tail.
- Secure the control surfaces so the wind does not whip them back and forth possibly damaging the surfaces and/ or their stops.
 - Gust locks are the best and most desirable method of securing the controls. Gust locks stop the control movement and relaxes the control operating system. CSI has control locks for all of our gliders stored outside (2-33, 1-34 & KR-03A) as well as the PW-6U.
 - If control locks are not available, then the stick can be tied back, however, when this is done the entire system “flies” 24 hours a day creating excess wear on the control system pivot points. We have replaced all of the main control pivot bolts on the 2-33 and 1-34 which showed a great deal of wear from having the control stick tied back for many years.