

A Few Other Ideas on Trimming & Launching of HLGs

The following are a few points extracted from an article by Kitrick Sonensen, the HLG Contributing Editor for the November 1997 issue of Free Flight. Refer to that issue for the complete article — worth reading.

The ideal flight profile is one that climbs well and transitions at the top with minimal loss of altitude. I've found three general trimming principles involved:

First Principle: Trim the climb with rudder turn and stabilizer warp (predominantly “up”).

Second Principle: Trim the glide by adjusting the CG (i.e., add or remove nose weight). *(Ed. Note: He recommends the use of lead thread available from fly fishing supply stores, or solder)*

Third Principle: Trim the glide circle with stab tilt and wingtip weight.

(He offers a few tips on Launching after you've warped a little “up” in the stabilizer trailing edge, a little left turn into the trailing edge of the fin, and a little washout in the trailing edges of the wingtips., and checked out the basic glide and made CG adjustments — ed)

Launch: You're now ready for your first launch.....lightly toss your ship into the air relatively flat (15-20 degrees above the horizon) with just enough “oomph” so the ship climbs 20-30 feet to the *left* and immediately enters its glide circle without ever having to make a transition. The trick to doing this is to launch with the ship listing about 20 degrees to the glide circle direction and throwing with an overhand motion. The purpose of this exercise is to verify that you indeed have constructed a glider rather than a brick and that your glider really does want to fly. Your glider should circle to the left while descending slowly. Estimated flight duration 10-20 seconds. Correct any diving tendencies by adjusting the noseweight at this time. Remember the rule: Add clay to reduce stalling and remove clay to reduce diving.

Now we are ready for more powerThis time the launch will be with the glider listing to the right or *away* from the glide direction by about 20 degrees. The launch angle itself should be about 45-60 degrees above the horizon. Hand launch is not nearly as precise as Catapult Glider, so just do your best.