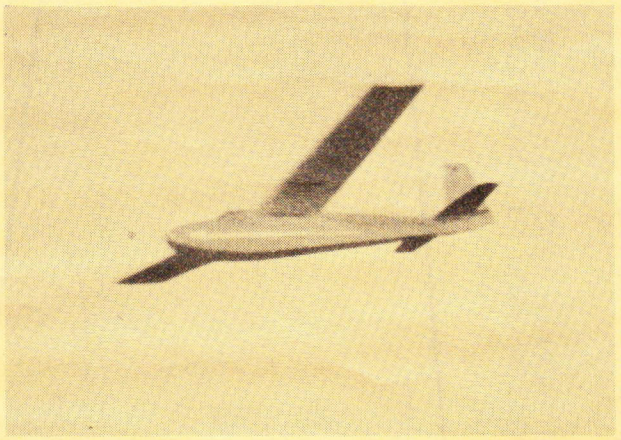
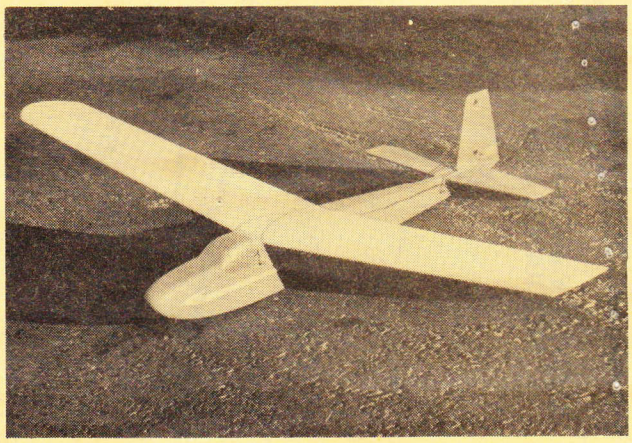
Schleicher K8B Glider

BY ROMAN BUKOLT





The plans offered on the following page and the next page are full size.

You will note there are three register marks (circles with a cross in the center) on the next page. These coincide with the register marks on the following page. If you will hold the plans up to the light and get these register marks to coincide, simply scotch tape the plans together and you have full size plans for your fuselage construction. Do the same with the rudder and its register marks. Cut and tape together.

On the back of the sheet of this set of plans is shown section AA. This need not be cut out. It is furnished only for the dimensions, to give you the former size as required at AA. You can refer to it as you reach that step in the building. Since cuts on the former are 90 degrees, it is not necessary to trace. Simply take the measurements and put on a 3/32" piece of balsa wood and you are in business.

We'd be very interested in your comments on this full size presentation in our Handbook, and also whether you'd like to see more of this type in the R/C Data articles that are scheduled for the future.

This is a stand-off scale, but it will look extremely lifelike.

This Roman Bukolt design is for the Commander R-O Baby system and no "blow by blow" instructions are given. Hints follow below.

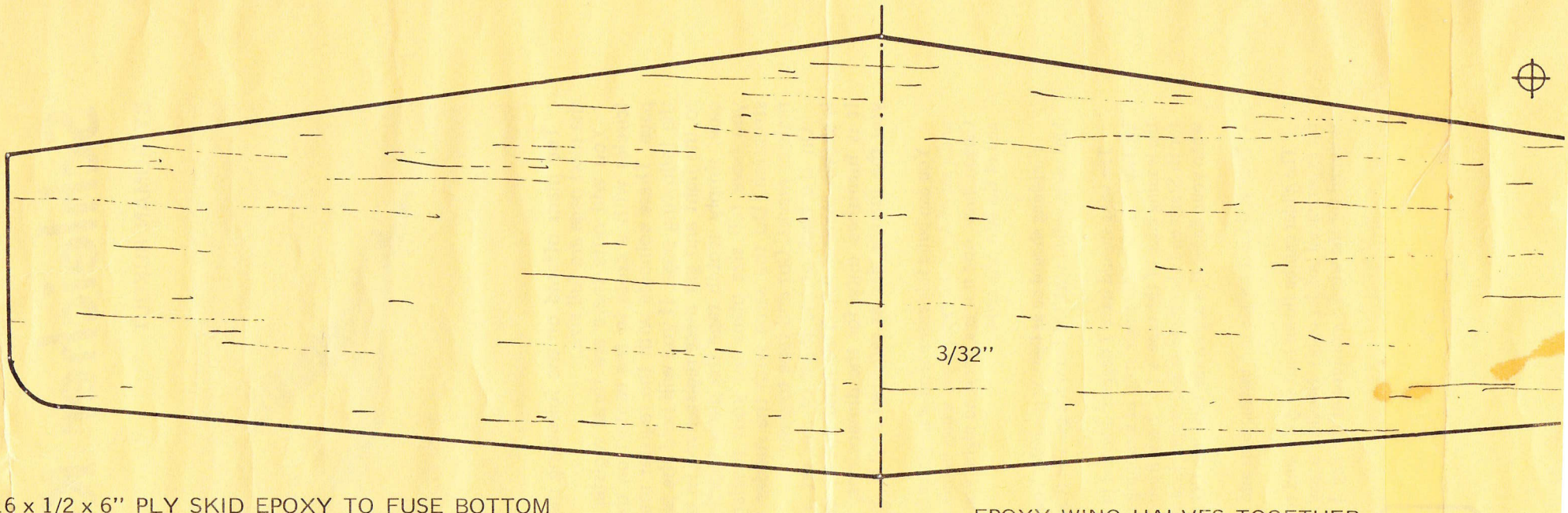
You can build this entire semi-scale glider from two sheets of 3/32" x 3 x 36 balsa, a 2 x 2 x 4 balsa block, and a set of Ace mini taper foam wings in one evening--between the 6PM news and the end of the Johnny Carson show. And if it is a weekend night, you can have it painted and ready for equipment installation by the end of the late, late show.

Finishing should be as light as possible. You are interested in adequate protection with light weight. Follow hints as supplied with the foam wings. The fuselage may be tissue covered and then doped, if desired.

The wing should have 7 degrees dihedral in each wing--which means EACH tip should be blocked up approximately 2 3/16". One single strip of strapping-reinforcing glass tape across the bottom, tip to tip, placed so that the leading edge of the tape is 1½" back from the leading edge of the wing. This will give wing plenty of strength for Hi Starts and also serve as the proper location for the balance point. In other words, if the plane balances when your finger tips are on the tape, the CG is correct.

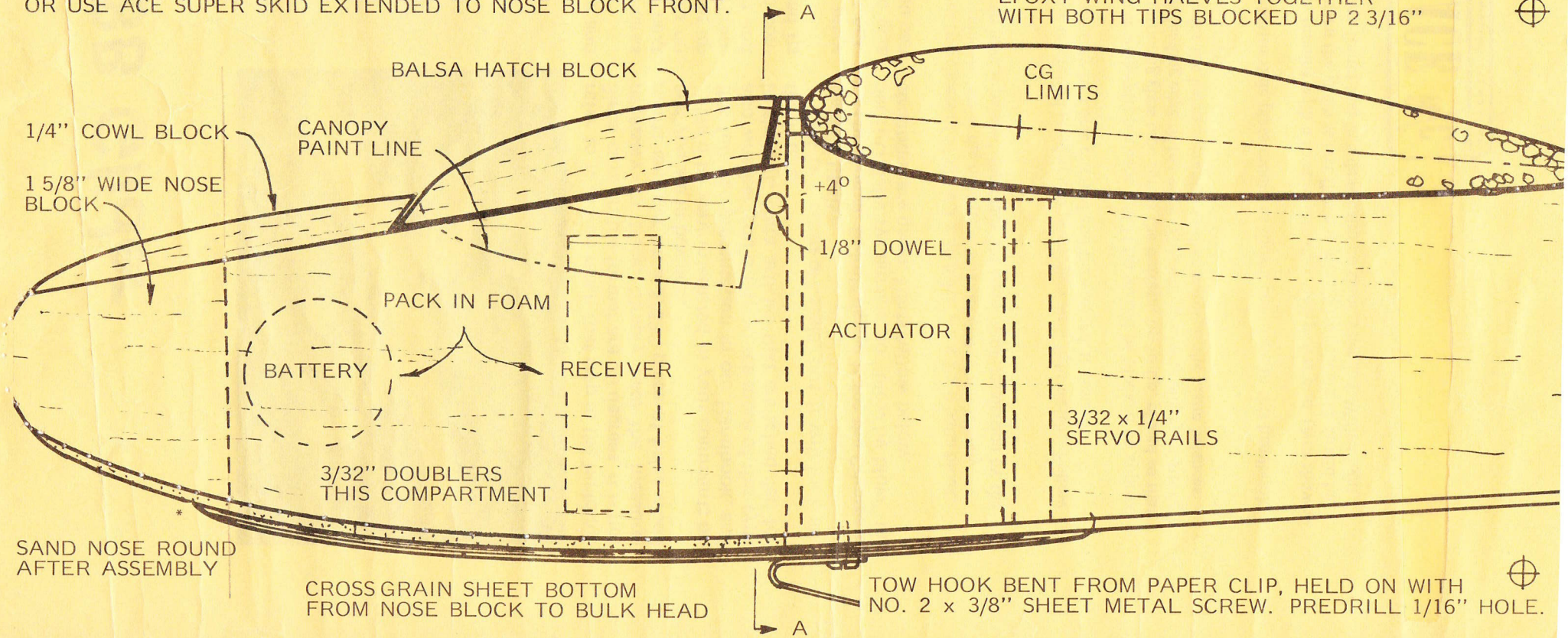
Follow typical torque rod instructions and actuator slide plate mount as shown elsewhere in this handbook.

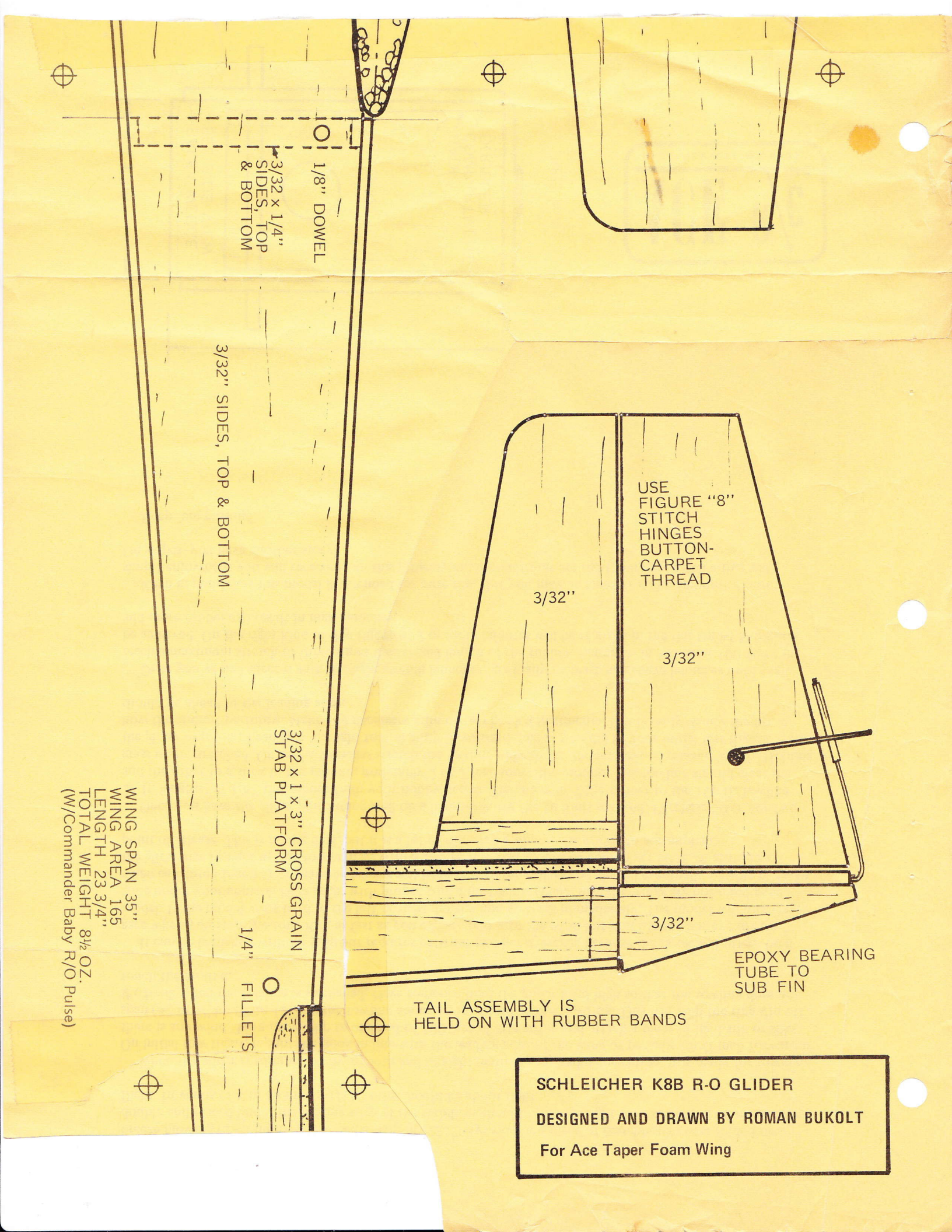
The glider can be flown four ways: hand toss, running with a towline, Hi Start, and power pod. (Not shown--for experienced builder only). Needless to say, when the glider is test flown it is hand launched and should be trimmed for the wind conditions of the day. I have found that in a dead calm no shim is needed. With a light



* 1/16 x 1/2 x 6" PLY SKID EPOXY TO FUSE BOTTOM OR USE ACE SUPER SKID EXTENDED TO NOSE BLOCK FRONT.

EPOXY WING HALVES TOGETHER WITH BOTH TIPS BLOCKED UP 2 3/16"





SCHLEICHER K8B R-O GLIDER

DESIGNED AND DRAWN BY ROMAN BUKOLT

For Ace Taper Foam Wing

breeze blowing (2 - 5 mph), a 1/4" wide strip of 1/32" plywood or a piece of matchbook cover folded over double and placed under the leading edge of the stabilizer should be about right for a smooth level non-scallopy flight. In winds of 8 to 15 mph a 1/16" shim should be about right.

When the glider is trimmed to fly smooth and straight, without any radio correction, it is ready for towing. On initial tow flight, mount the hook in line with the leading edge of the wing or perhaps a half inch forward if there is any wind. Tie a paper clip to one end of 100 feet of kite string and attach a piece of light silk or silk-span (3" or 4" by 6" to 12") to the towline about a foot ahead of the tow ring. This will help the ring slip off the hook when the towline is slackened. Have someone hold the glider head high so that the towline does not touch the ground.

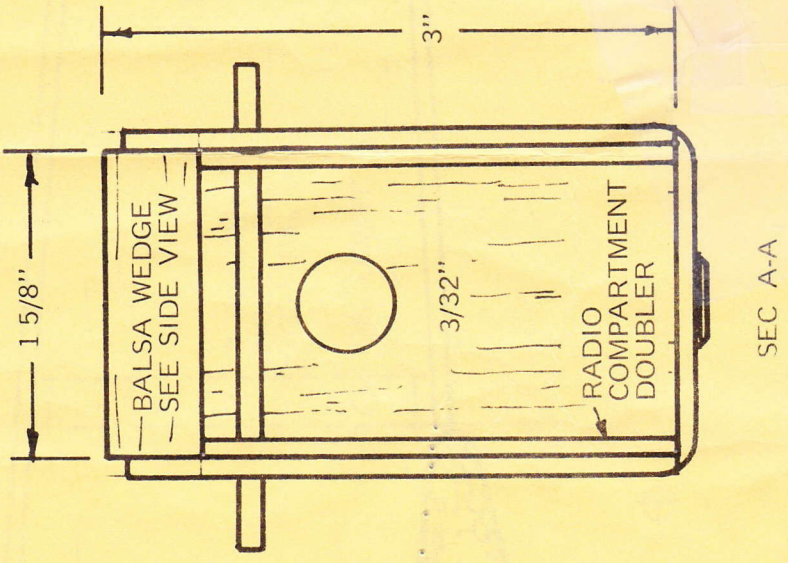
It can be launched without help but requires patience and perseverence because the hook will often disengage when you start the tow. Run as fast as you can straight into the wind but don't take your eye off the model. If the model veers hard to the left or right, let the line go slack immediately. The model will disengage glide under your control. Here again with proper trim adjustments (make sure the wings are not misaligned when cemented together or that one wing is not heavier than the other) you should eventually be able to make the glider rise straight up the tow course. With a 100 ft. line you should be able to get 50 ft. of altitude at point of release. This is no big deal, but it is a lot of fun--that's what we're trying to accomplish.

Once you have the glider performing well on a hand tow, try the Hi Start method. Purchase 50 ft. (or two 25 ft. lengths) of 1/8" flat rubber from your hobby dealer. Tie one end of the rubber to the 100 ft. towline and the other to a stick in the ground, preferably 2 or 3 feet above the ground. The towline should clear the grass when stretched. On initial launches stretch the towline only about 25 feet beyond relaxed length. Holding the glider over your head give it a light toss, slightly downward, just as you did in your initial test flights. Watch how the aircraft performs. Make any necessary trim or two hook adjustments. If it is fairly windy the hook should be ahead of the leading edge.

Once you've had success with the light stretch launches, gradually increase successive launches until you reach a maximum stretch of three times the relaxed length of the rubber. Launches in excess of 100 feet can be achieved. On the right kind of day flights of 2 or more minutes will be realized in the flat lands! More line and more rubber can result in high launches.

Keep in mind that this model is intended for pure fun. But you may be amazed at the amount of pure simple enjoyment you will receive from this project, and if conditions are right you may catch a thermal! On slopes--you have another story!

Keep 'em pulsing!



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