MINI BAT

Recommended engines:
1/2A6-2, A5-2, B4-2

The Minibat is being seen in an increasing number of NAR boost glide competitions up to and including the Swift Boost Glide. It is proving to be highly successful and has won or placed in a majority of the meets in which it has flown. Rugged, simple construction makes it a good, reliable flyer for sport flying and demonstration, too.

Wing Span – 9-3/4"
Body length – 10"
Weight – 1 oz.
Catalog #K17

$1.50

CONSTRUCTION OF THE MINI BAT BOOST GLIDER

1. Using the Template (on Fuselage plan) as a guide, mark the angle on the wood and measure the wings as indicated in Fig. 3 then cut the wings.

2. Measure the elevons on the wing tips on the bottom of the wing. Cut through the line parallel to the wing tip. On the line parallel to the trailing edge of the wing just cut lightly, do not cut all the way through. Remember to do this on the bottom side of the wing.

3. Fasten one of the wings on a flat board (over a piece of wax paper) with pins. Put glue on the other wing and butt up against the wing on the board. Put some support under this wing and measure the tip of the wing so that it is 3 inches. Allow to set overnight for maximum strength. (Fig. 4)

4. Cut the section on the fuselage for the wing 1/8" by 3 5/8" as indicated on Fig. 5.

5. Using Fig. 1 as a guide cut out the rudder assembly, noting grain and position as indicated in Fig. 1 & 3.

6. Using the 1/4" by 1/4" piece of balsa measure 1 inch back on one edge and cut as shown of Fig. 1.

7. Mount the Rocket tube on the pylon as straight as possible. Also mount the launching lug where the tube and pylon meet (either side.) Glue nose cone into tube, set aside to dry.

8. When wing is set remove from board and glue it into the notch on the fuselage. Pin wing to fuselage making sure each wing tip is at the same height.

9. Cut out the portion of the rocket tube as indicated on Fig. 1.

10. When the wing is dry mount the rocket tube on top of the wing as indicated on the plans.

11. Glue on the rudder making sure it is in a straight line with the fuselage.

12. When all is dry, generally sitting overnight, you are ready to test glide your boost glider.

13. Move the elevons up so that the bottom portion of the elevon clears the top of the wing by 1/16th of an inch as indicated in Fig. 6. Launch gently into the wind and the glider should glide flat. If not, raise the elevons but not more than an eighth of an inch. Glue elevons in place.

14. Make one elevon higher than the other to make glider glide in a circle or add clay to one wing tip.

15. The rocket ejection system works as follows: Tape a streamer to your rocket engine and wrap it around the engine. Mount the engine into the tube (this is the reason for cutting the tube.) When the engine ejects the streamer will unravel allowing a safe decent.

16. The glider should fly right off the board but due to differences in balsa wood the glider might tend to stall or dive when testing under rocket power. If the glider decends in a nose down condition, put some clay at the trailing edge of the wing. If a stall (climbing then diving) condition, put some clay on the pylon under the nose cone. If you build another glider from the plans do not use rock hard balsa as this wood is to heavy for the size of the glider. Although this glider was intended for fun type of flying it can be used for contest work with some wing changes. For the smaller classes use 1/16" balsa. And for the larger classes use 1/8" balsa but sand in a nice airfoil. Practically any engine size can be used on the kit model but one note of caution, do not use any rocket engine with a delay charge of more than 3 seconds.

17. For initial testing use an A5-2. The glider has flown successfully on A5-2, A8-3 and B4-2. Good luck and feel free to write to Mini BAT, c/o Space Age Industries at the address on your kit, on any ideas, hints, or criticisms.

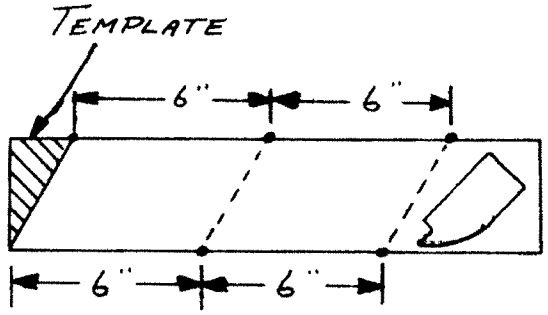

FIG 3

REMEMBER- WAX PAPER

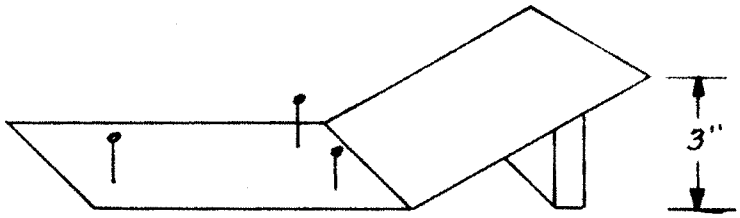

FIG 4

FUSELAGE

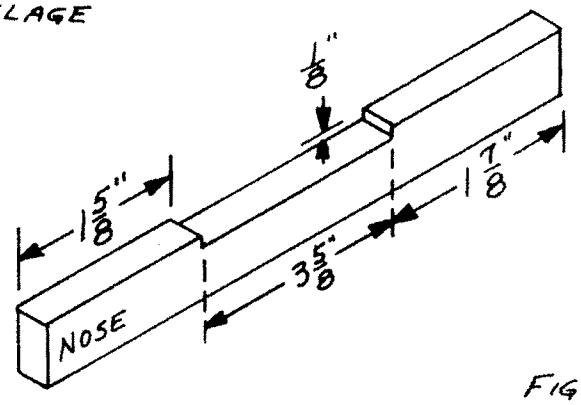

FIG 5

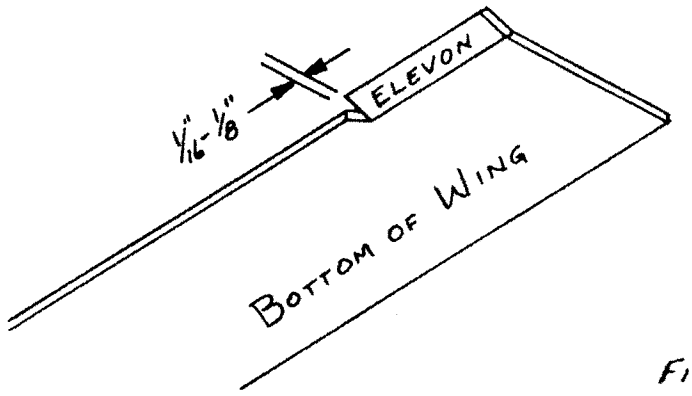

FIG 6

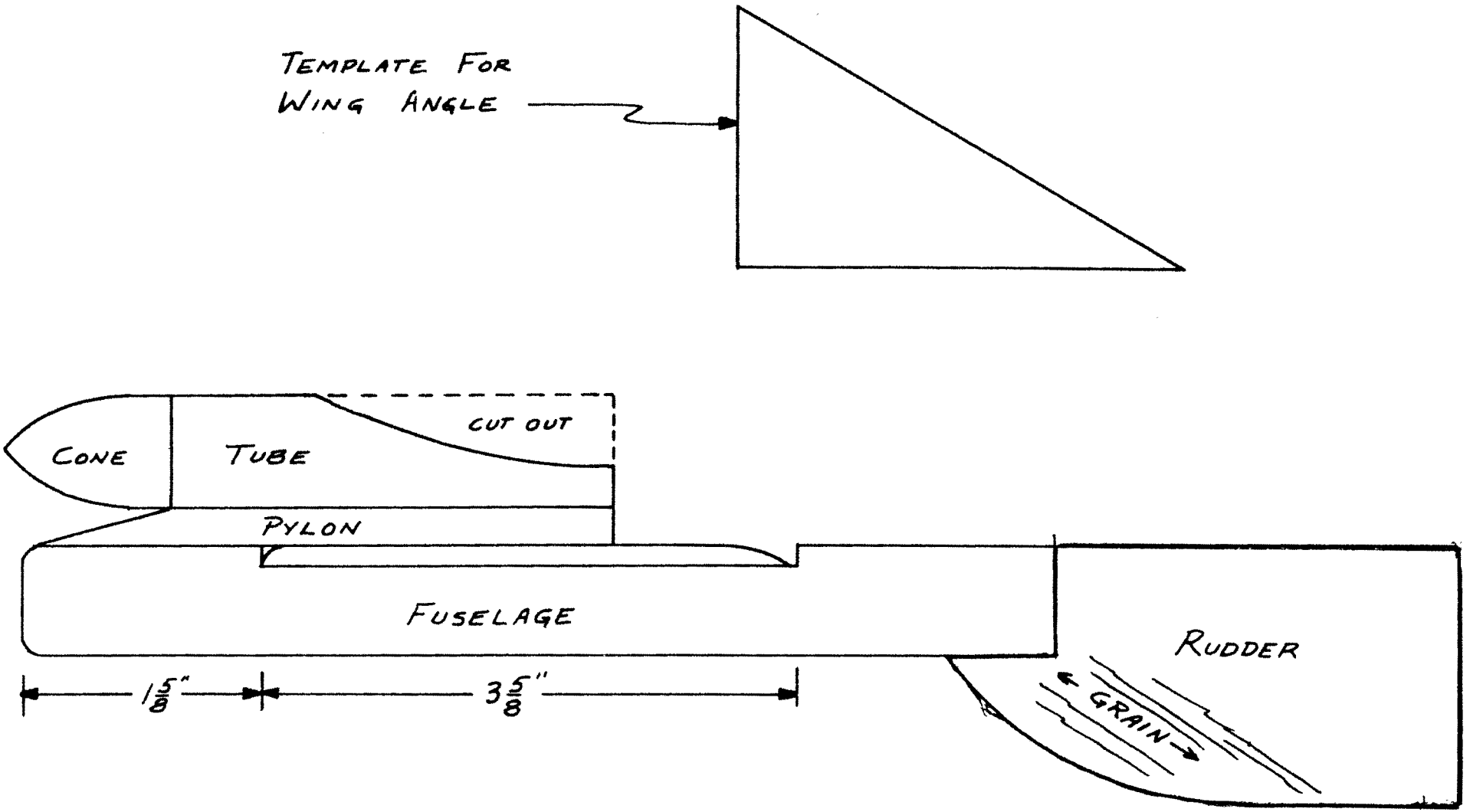

FIG 1

MINI-BAT BOOST GLIDER
FUSELAGE FULL SCALE

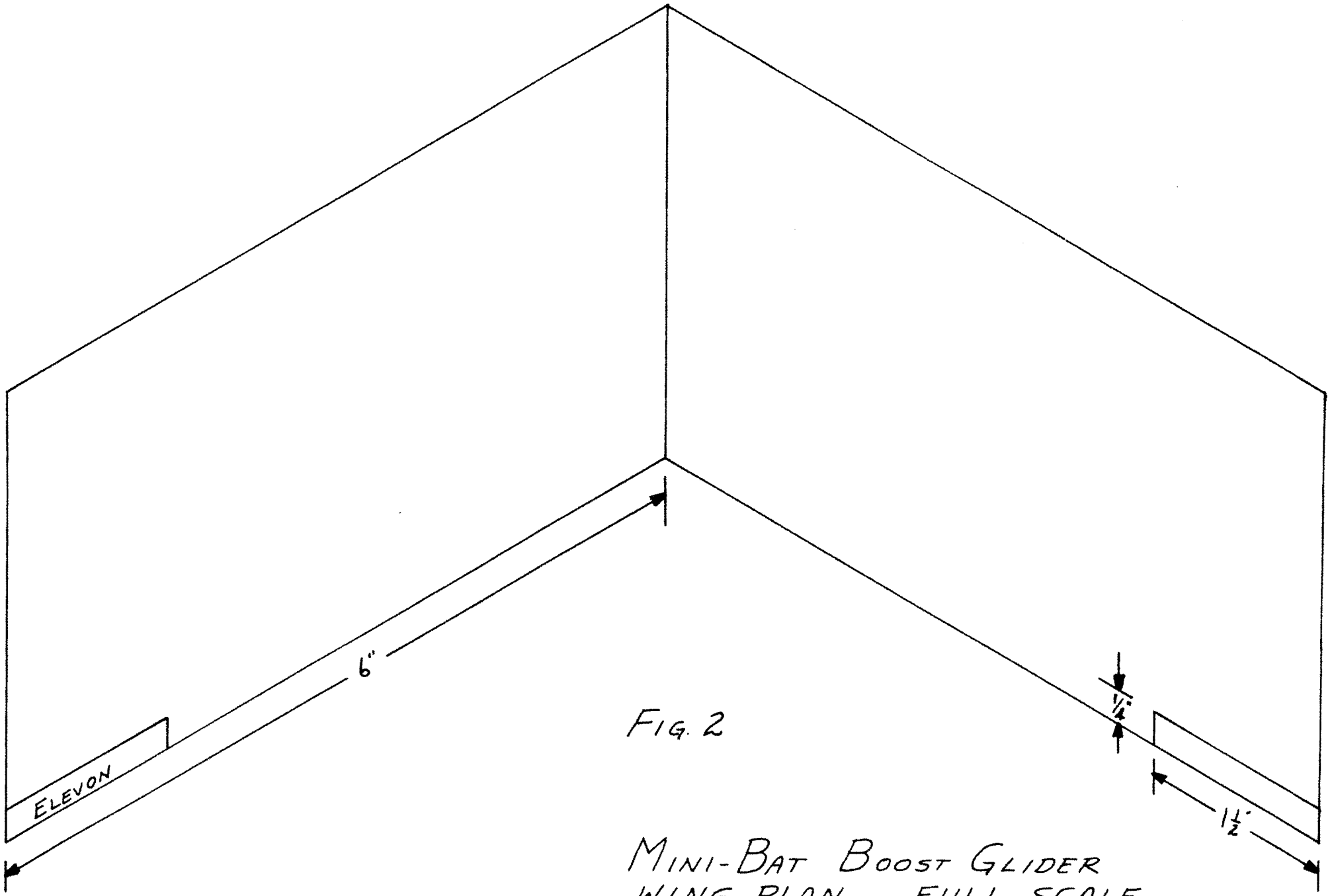

FIG. 2

MINI-BAT BOOST GLIDER
WING PLAN FULL SCALE