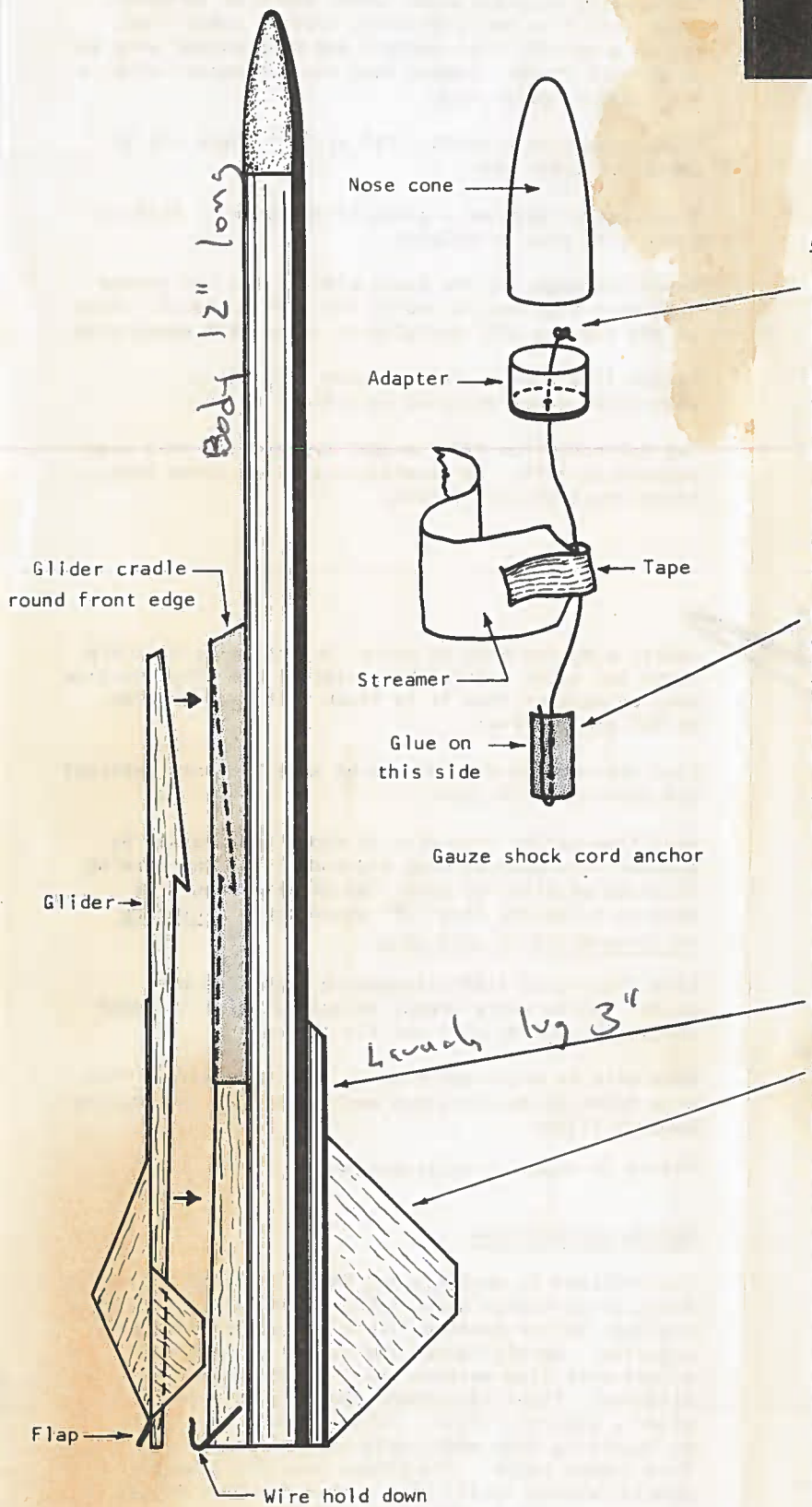
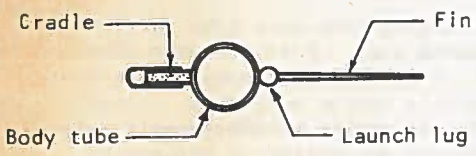
Orbitron

MINIJET PARASITE BOOST GLIDER





REAR VIEW

Glider not shown

ASSEMBLY INSTRUCTIONS:

Start assembly of nose cone by inserting shock cord through hole in bottom of nose cone adapter. Tie knot large enough to keep cord in place.

Put a thin coat of plastic (styrene) cement around inside of nose cone. Rub cement with the end of your finger to smooth it out and remove excess. Use cement sparingly as it will melt nose cone.

Insert adapter into nose cone then slip nose cone into body tube to insure alignment. With a twisting motion, carefully remove nose cone from body tube and allow to dry.

Punch two holes with a pencil 1/2" apart in the gauze shock cord anchor and thread cord into anchor as shown. Smear glue with a brush or "Q" Tip in body tube about the size of the anchor 3/4" from end. Insert shock cord and anchor into body tube and push into glue with a pencil until securely set in place.

The rocket is recovered by streamer which is taped to the center of the shock cord with masking tape.

Sand body tube and junction of nose cone lightly with fine sandpaper to remove all irregularities. This also provides a good bond for gluing fin and cradle.

Glue launch lug flush with rear and parallel to body tube.

Sand fin to an airfoil shape and glue along top of launch lug perpendicular to body. When dry apply a glue fillet on each side of fin.

Using a "Q" Tip or brush, smear white glue around inside of body 2" from end. Insert engine block and push it forward with an engine until 1/8" of engine protrudes. Remove engine as soon as stop is positioned.

Build glider (see glider assembly instructions).

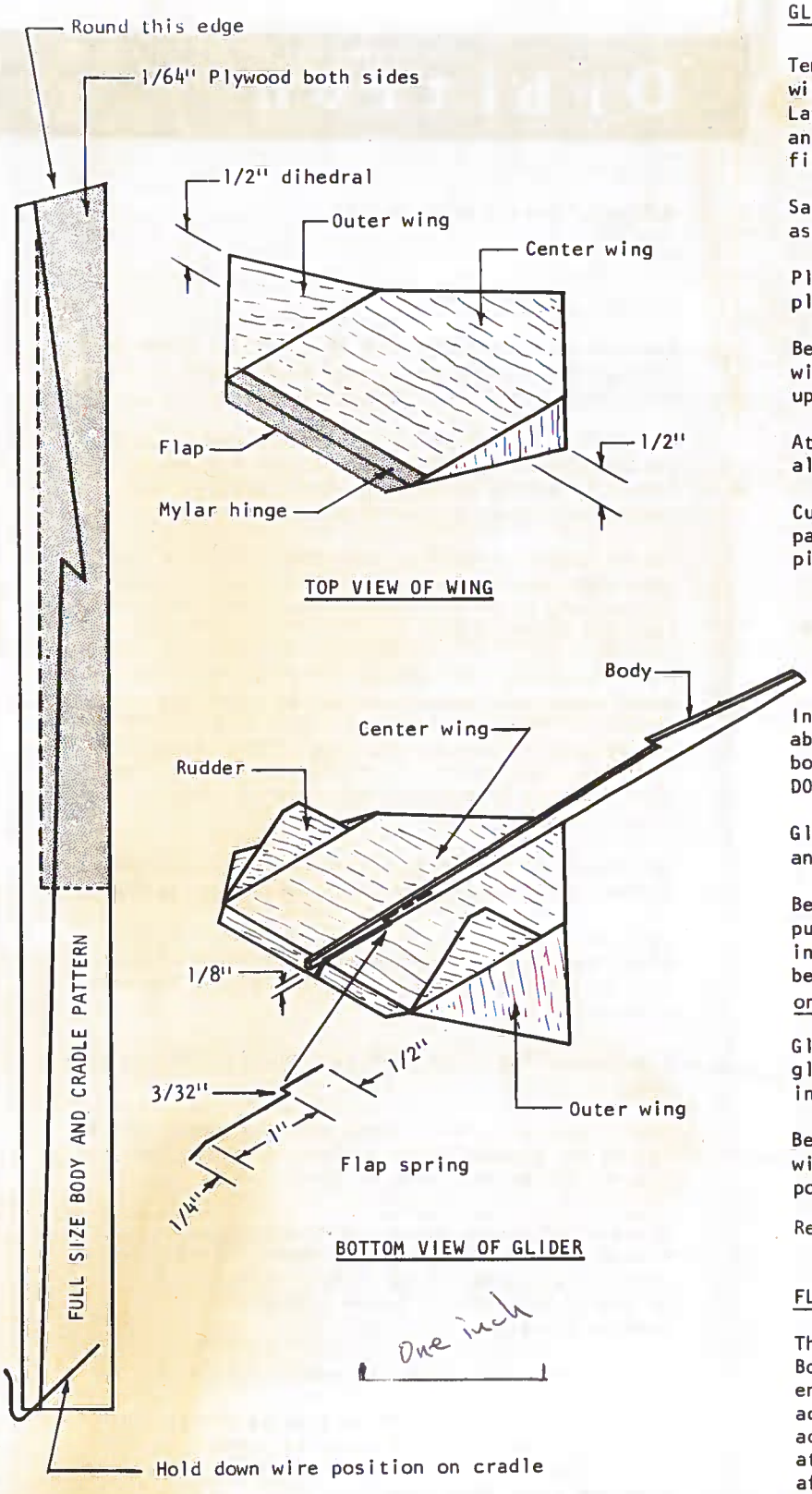
Attach glider cradle to body tube by gluing flush with bottom and directly opposite launch lug and fin as shown. Make sure it is parallel to body by sighting along body tube.

FINISHING INSTRUCTIONS:

Since the glider is made from 1/32" balsa, special precautions must be taken to prevent it from warping. One way to minimize warping is to paint a small section of the wing on one side and turn it over and paint the opposite side. Continue this procedure until completely painted.

All balsa and paper surfaces should be given at least 2 coats of sanding sealer or clear dope, fine sanding between coats. Do not get any dope on plastic parts.

The leading edge of the wing can be reinforced with adhesive backed aluminized mylar. CMR Cat.No. AM1.



TOP VIEW OF WING

BOTTOM VIEW OF GLIDER

One inch



HOLD DOWN WIRE PATTERN

GLIDER ASSEMBLY INSTRUCTIONS:

Temporarily assemble outer wings and flap to center wings in a flat position using tape on under side. Lay on a smooth, flat surface and sand entire wing to an airfoil shape. Remove tape and cut center wing to fit shape of outer wing.

Sand rudders to a symmetrical airfoil shape and set aside for later use.

Place center wing on a piece of wax paper. Hold in place with pins or weights.

Bevel the edges of the outer wing to fit the center wing when they are raised to the 1/2" dihedral. Prop up the tips to 1/2" and glue in place with epoxy glue.

Attach flap back to rear of main wing using aluminized adhesive mylar as a hinge on top.

Cut out body from 3/32" x 1/2" balsa using full size pattern at left. Be careful in cutting since both pieces must be used intact.

Invert wing and prop up center so that wing tips are above the table. Mark the center of the wing and glue body on mark so that it is flush with rear of flap. DO NOT glue to flap.

Glue the rudders and body to be sure they are vertical and parallel with joint.

Bend flap spring from wire as shown and install by pushing thru body at wing and body joint and turning in place parallel to body. End of wire should be bent to raise the flap 1/8" above body. Put glue on forward end of wire only.

Glue a strip of 1/64" plywood on each side of glider cradle where shown. Do not get glue in notch in cradle as body will not fit later.

Bend wire as shown and glue to rear of cradle. This wire holds glider in place and keeps flap down during powered flight.

Return to assembly instructions.

FLYING INSTRUCTIONS:

The Orbitron is designed for NAR Hornet and Sparrow Boost Glide Events using 1/2A3-3M or A3-4M Mini-Jet engines. Before powered flight the glider must be adjusted. Gently launch the glider by hand and adjust with clay weights until a flat glide is attained. Final adjustment can only be made after a powered flight. Attach glider to cradle by inserting flap under hold down wire and body into cradle notch. The glider must fit snug but should release easily when pushed forward. Adjust as necessary by sanding front of body.

Pack flameproof wadding into body tube until it rests against engine stop. Fold streamer carefully and insert it in body tube making sure that all the shock cord is inside body tube. Insert nose cone. Following engine manufacturer's safety instructions, install an igniter in the engine. Wrap engine with tape until it fits snugly into body tube and push it in place against the engine block. Put rocket on launch rod, attach igniter clips, countdown and ignite. Rocket should go straight up, the ejection charge will separate the glider from the rocket.