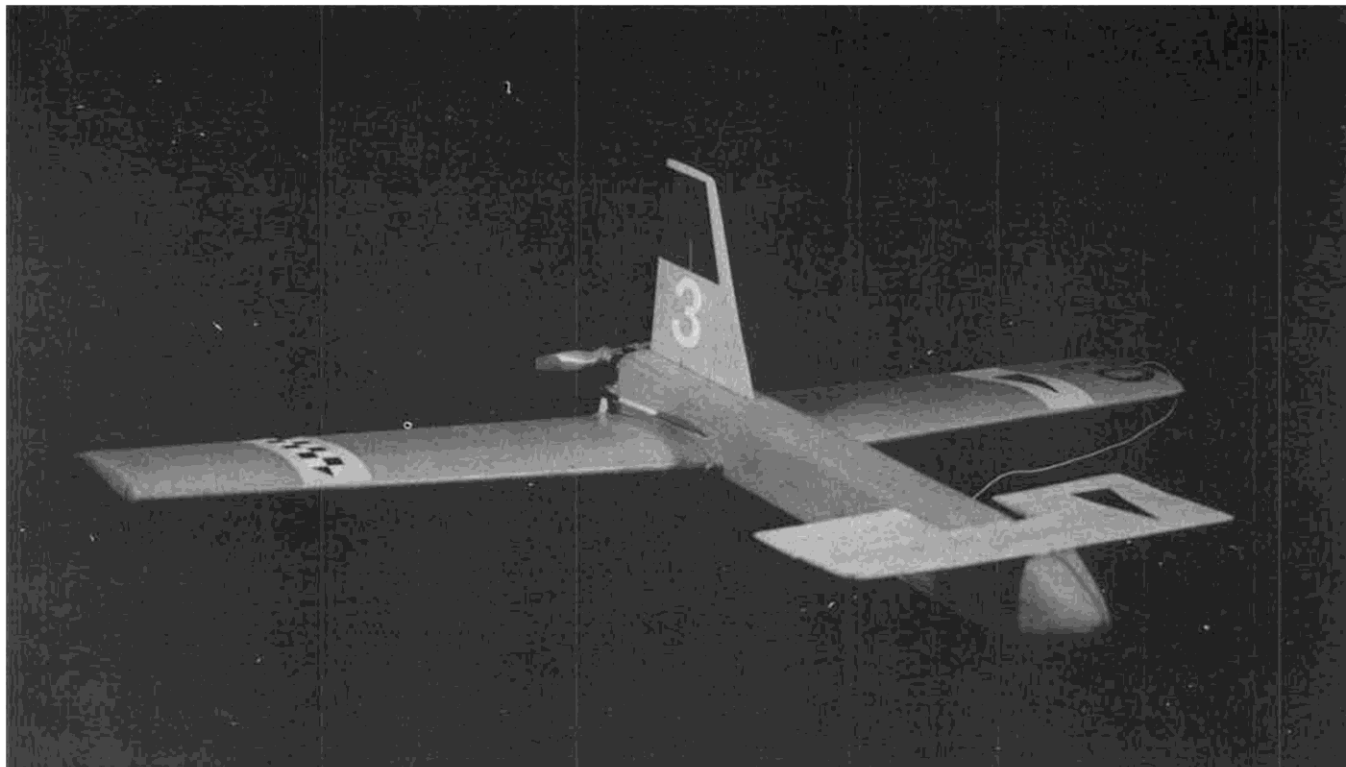


# Boxy-Z

By GLEN WEBER. . .An extremely simple 1/2A R/C canard, the Boxy was inspired by Col. Bob Thacker's .60-size Shinden. Trial and error, along with ready-made foam wings, have produced this configuration.



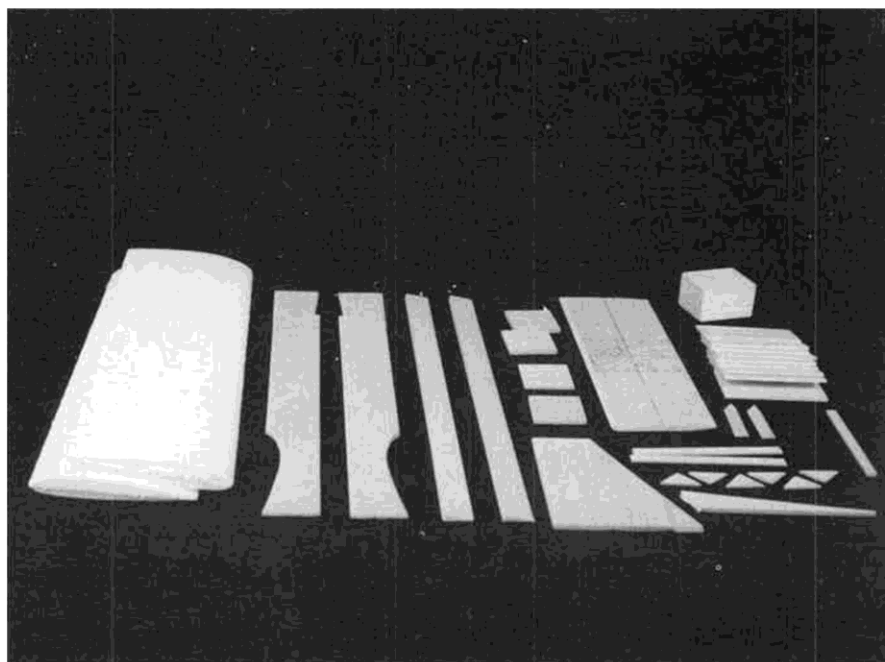
• The Boxy-Z is your basic 1/2A canard that is simple to build and maintain, economical, aerobatic, and practically bulletproof. Its design originally started out as a 1/2A scale Shinden, reduced in size from Col. Bob Thacker's .60-sized model (*MB* August 1984). After two prototypes and many crashes, all the bugs got worked out. It performed well but was difficult to build and to repair. Along comes Bruce Tharpe and his "Weekend Wonders" (*MB* April 1984) and a challenge to build a simple 1/2A canard. With his research into "boxy" designs and the Shinden's great flying measurements, the "Boxy-Z" was born (excuse the pun, Burt). This model can be constructed in a minimal amount of time with little expense and will provide unbelievably rugged and versatile performance. The Boxy-Z's flying capabilities are comparable to its brother canards, and it can perform any maneuver that aileron and elevator will permit. Impressive landings are possible because of its gentle stall characteristics.

## FUSELAGE

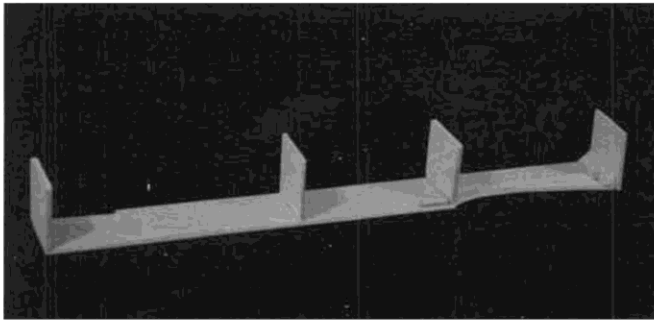
If this appears too complicated for you, maybe you should take up pottery. It's just a box, hence the name. First, cut a sheet of 1/8 x 2 x 36-inch medium balsa in half, make the cutouts for the wing saddle and canard, glue in the doublers, and that's it! Simple, huh? The formers are 1/8 x 2 x 2-inch balsa, and the firewall is the same size

plywood. Glue the formers 90 degrees to the sides where shown. Add the firewall (epoxy) and nose block, cross grain top and bottom sheeting and hatch parts. Make sure

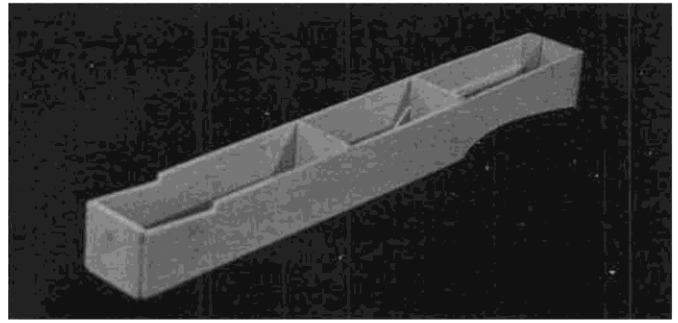
everything is square before the glue dries. Sand, shape, and cover with your favorite covering, remembering to keep it light! Now glue in the wing hold-down dowels.



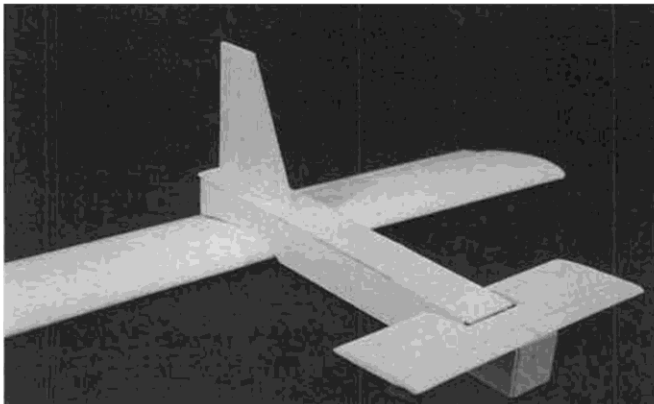
Easiest way to build the Boxy-Z is to cut out parts to make your kit, then proceed. The foam wings are from Ace R/C, and can be either constant chord or tapered, to suit your desires.



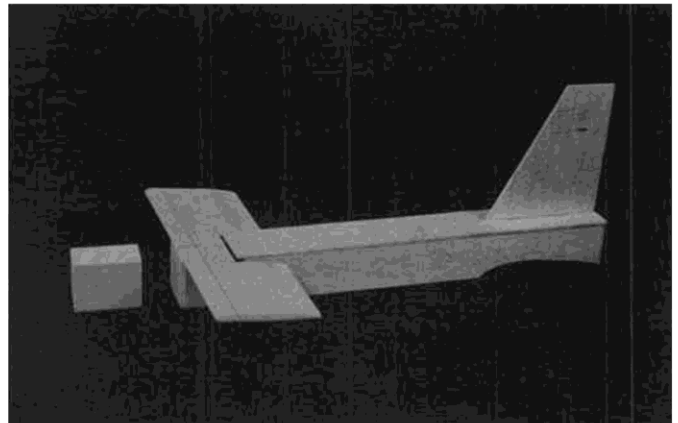
Fuselage is simple box construction from a sheet of 1/8-inch balsa. Formers are 1/8 inch, as is plywood firewall.



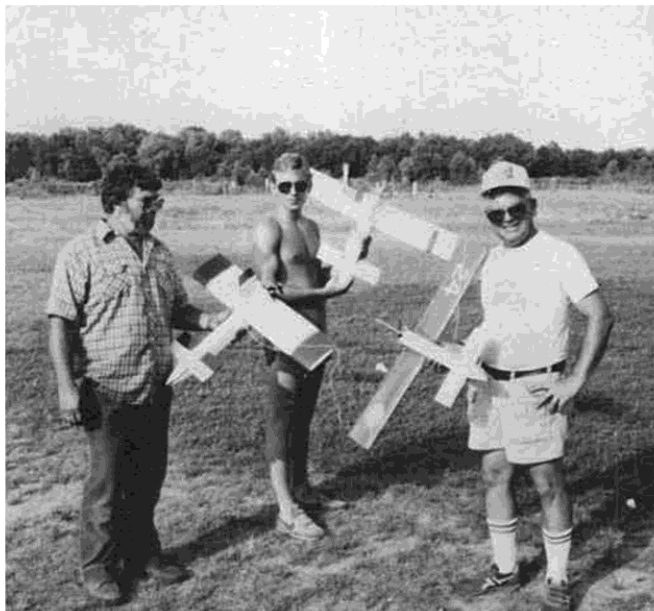
Nearly completed fuselage with sides in place. Note cutouts for the wing saddle and canard.



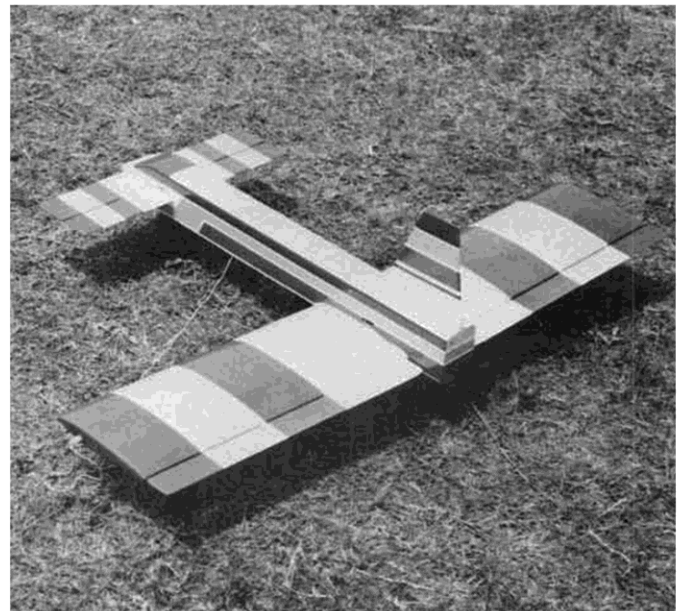
Test-fit of components before final assembly and addition of radio equipment and engine.



Solid balsa nose block is glued in place before shaping.



A trio of Boxy-Zs and their owners: Kenny Bonura, his son, and Vic "The Seaman."



Finished Boxy sans engine. This design has been successfully flown using cobalt 02 and 035 electric motors as well as 1/2A gas.

#### CANARD AND FIN

Cut the canard and vertical fin from a sheet of 3/16 x 4 x 18-inch medium balsa as indicated. Glue a 3/16-inch dowel (or bamboo skewer) onto the leading edge of the canard. Sand and cover. Join the elevators as shown on the plans or use your own creation. Glue to fuselage accurately.

#### WING

The wing is a constant chord Ace foam wing (or tapered). Follow the instructions that come with the Ace wing. We like 1/2-inch dihedral under each tip, but perfectly flat is okay. Attach the ailerons (firm balsa) with the covering material (shown on plans

or consult "Weekend Wonders" MB April 1984) or use your own type of hinges. To save time and covering material, just cover the center of the wing as wide as the material comes. The tips survive very well just being foam (just like the Voyager). The ailerons are attached to the servo by nylon pushrods and snap-links, and regular elevator horns on the ailerons.

#### EQUIPMENT

Mount the tank and motor. Install the radio equipment (micro systems work best as far as weight is concerned) so the plane will balance (dry) no farther aft than shown. Check everything, remember up is down

and down is up on a canard. Don't fudge on the balance, now!

#### FLYING

Hand launch, level, into the wind and enjoy flying backwards. Try some loops, inside and outside, rolls, and low passes over the field. With a hot Tee Dee on pressure, this bird will keep up with most 1/2A "racers." Many Boxy-Zs have been built by OFBs in the area, and all are amazed at how fun and rugged a plane can be. Have fun and fly safely!

P.S. Boxy-Zs have now been flown very successfully using cobalt .02 and .35s. You electric guys know what I mean!