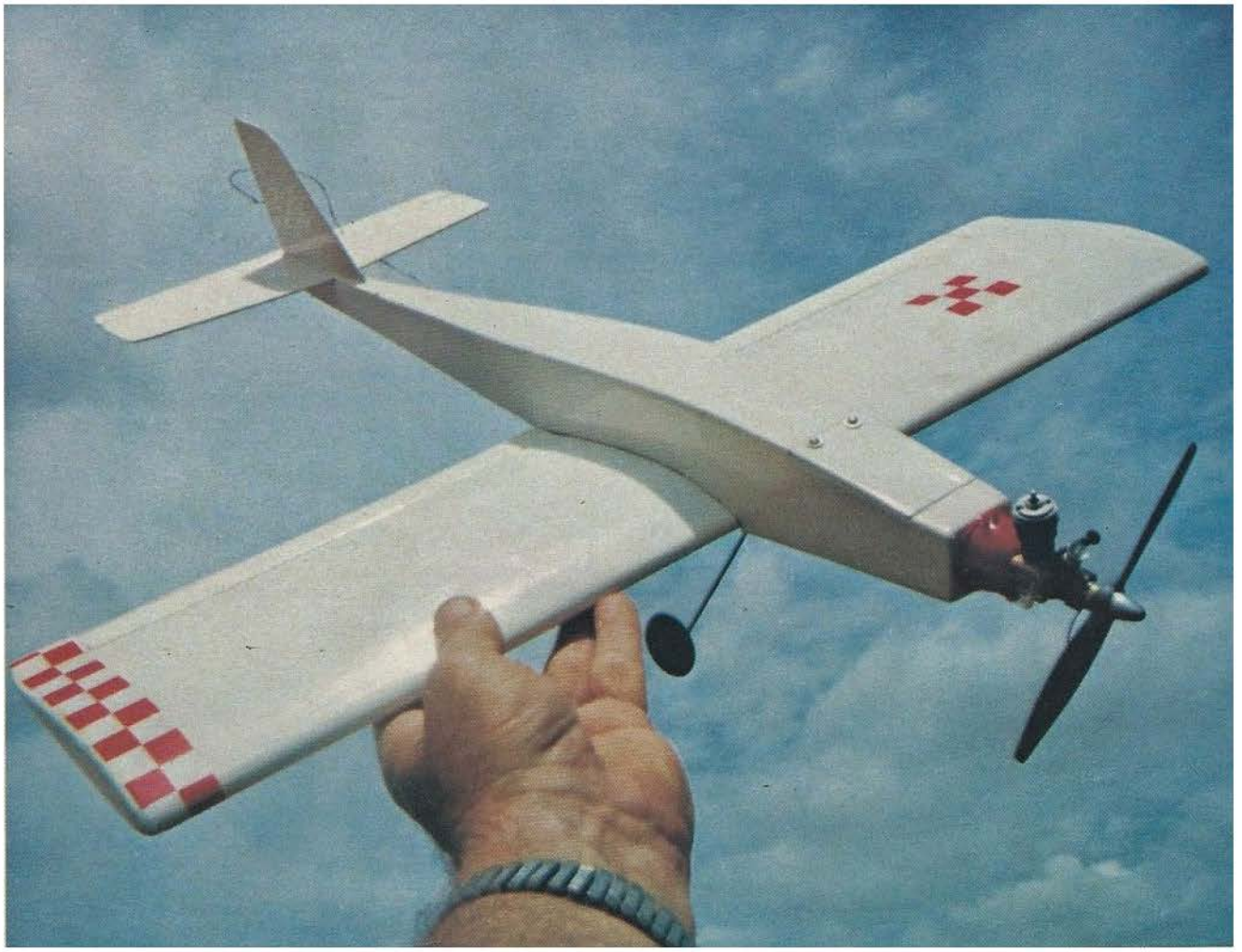


QUICKIE 100

BY RON SHEAN

● Half-A Pylon Racing is getting up into the 90 mph range with a new breed of planes which fly very well but are a pain to build, service, and repair. With a few minor modifications, hot fuel, and a good engine even the Quickie 200 is smoking around the pylons with the latest racers.

It's time to slow things down again, so how about a new plane and a new class of pylon racing for the winter? Yes, I said *winter*! The new Quickie 100 is for *indoor* pylon racing.

The Quickie 100 is designed around the new Cannon Super Mini 2-channel receiver with the 100 mah fast charge nicad battery. The airborne unit weighs 3.2 ounces and the plane, ready to buzz the pylons, weighs only nine ounces.

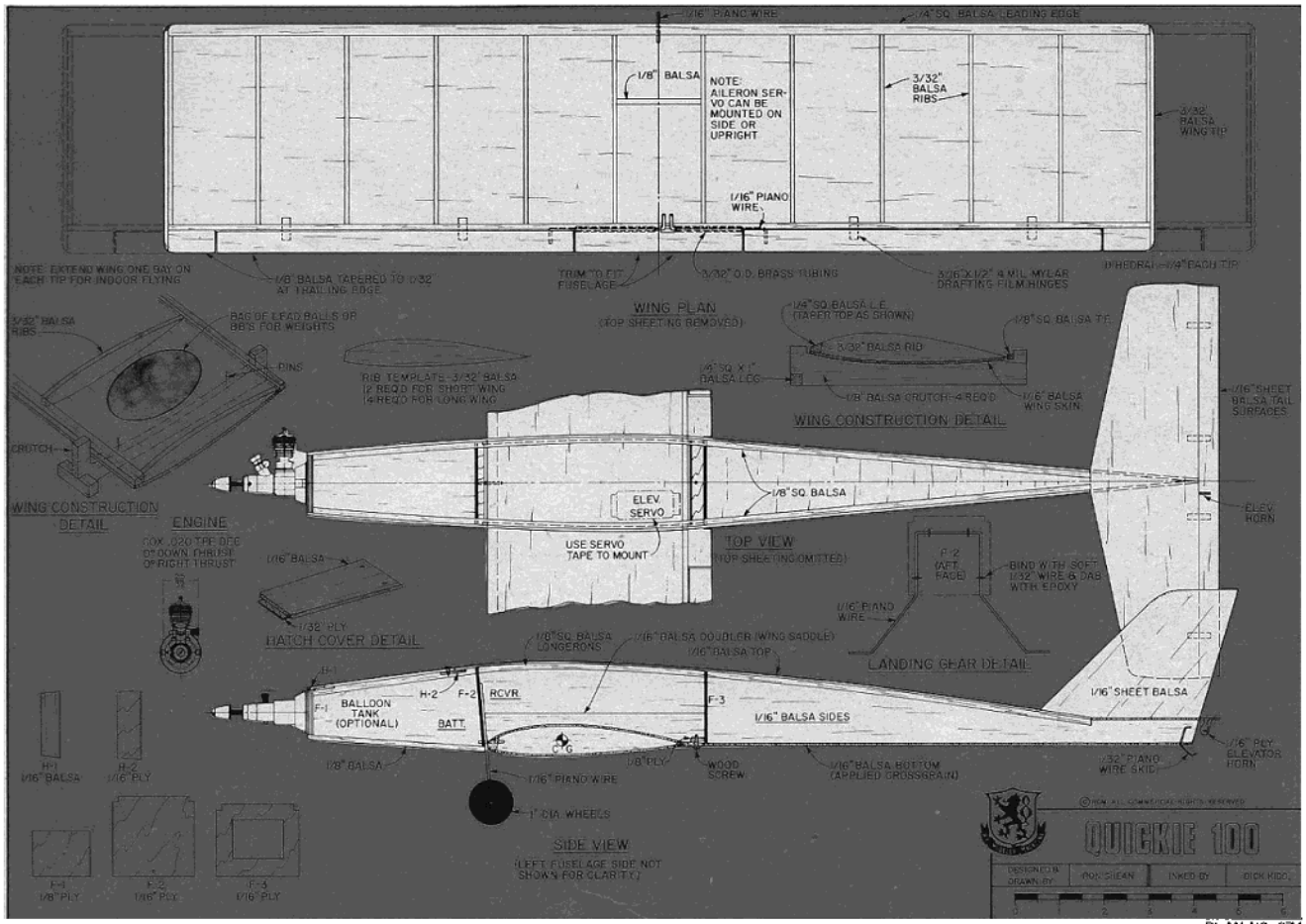
In the East and the Midwest, where the weather gets fierce in November, the R/C gear goes into hibernation until April. No flying for six months! Incredible! The winter flying blues can be beaten by locating a large heated building, getting the racing nuts together and holding Quickie 100 races one Sunday a month all winter. It sounds a bit far out, but, two or more clubs could get together to secure an acceptable large building for racing, possibly an airplane hangar, a warehouse, or even a skating rink. The racing meet might involve traveling quite a distance for some but could be enjoyed as a winter "indoor picnic" for the whole family. Winter racing will keep the flying reflexes sharp all year. The energy produced by these little racers in flight is quite low and poses little danger to spectators or property. Of course the Quickie 100 is an outdoor plane, too, and, due to the low noise factor, can be flown almost anywhere.

CONSTRUCTION

Fuselage: Cut the fuselage sides, top, and tail from light, but firm 1/16" sheet balsa. Cut out the plywood formers and other plywood and balsa parts. Bind the 1/16" piano wire landing gear to former F-2 with soft 1/32" wire and dab a little epoxy on each binding. Using a ball point pen, mark the center line on the fuselage top, formers, and mark the former stations on the fuselage sides. This assures an accurate and easy job.

Begin assembly by gluing 1/8" square balsa strips to the fuselage sides with "Hot Stuff", Zap, or one of the Alpha Cyanoacrylate adhesives. For a quick and positive bond with the Hot Stuff, always smear a light coat of white micro balloons between the mating surfaces. Attach formers F-2 and F-3 to the fuselage top, making certain that the angle between the top and each former is correct. Add the sides and, with epoxy, add the firewall F-1, the wing saddles, plywood wing hold-down, tail, and wire tail skid. Epoxy the 1/16" bottom sheet balsa on crossgrain, add the 1/8" sheet bottom front, H-1, H-2, and construct and fit the hatch cover. Cut the elevator horn from scrap 1/16" plywood, drill the pushrod holes and epoxy to the elevator. A light application of Hot Stuff to the pushrod holes in the horn toughens them against wear. Seal the tank compartment with K & B Superpoxy, sand the fuselage and tail, and apply 2 coats

FULL SIZE PLANS AVAILABLE — SEE PAGE 190



PLAN NO. 674

of Superpoxy, sanding lightly between coats.

Hinge the elevator using nylon thread hinges, or the usual slot-and-hinge method using 1/8" x 1/2" hinges cut from scraps of 4 mil mylar drafting film. Rough up the hinges with pin holes, slide into the slots, and secure with a liberal application of Hot Stuff. Solarfilm, or similar iron-on covering, gives an attractive, durable finish. Seal the edges with a thin coat of clear Superpoxy to prevent peeling, caused by high nitro fuels. This is a good chance to use up those odd scraps of covering left over from the big birds.

The elevator pushrod is made from a length of 1/32" wire with "Z" bends in each end and an additional "Z" bend in the servo end of the wire for trim adjustment. An elevator throw of 3/16" up and down is about right.

Wing: Cut the 12 wing ribs from 3/32" balsa sheet and select a straight 1/4" square x 22" long balsa leading edge, a piece of 1/8 square balsa 20" long, and two sheets of light but firm balsa 1/16" x 4½" x 22" long for the wing skin. Join the two sheets together with Hot Stuff to obtain the 4½" width. Cut the four wing building supports from scraps of 1/8" balsa sheet. Bevel the 1/4" square balsa leading edge as shown on plans and epoxy it to the bottom wing skin. Assemble the wing supports on a flat surface — a glass top coffee table is perfect, if you dare — and pin the bottom wing skin to the supports. Add weights to keep the supports flat on your building surface. Using Hot Stuff and micro balloons, attach the ribs, mylar aileron hinges, and 1/8" square balsa trailing edge to the bottom wing skin. Add the 1/8" balsa center spar and, using 15 minute epoxy, put on the top wing skin. When well set-up, remove from the supports and add the tips, trailing edge, and strip ailerons. Sand and paint on two coats of K & B Superpoxy. Drill and epoxy the wing mounting dowel in place. A short piece of 1/16" piano wire can be used instead of the 1/8" dowel. Cut out the servo well and box in the sides with 1/16" balsa scrap and smear epoxy over the surfaces. Install the servo on its side with 1/8" servo tape. The aileron pushrods are two pieces of straightened paper clip wire with "Z" bends in each end. For trim adjustments, simply bend the wire with a pair of pliers. The correct throws for the ailerons are 1/16" up and down. After the trim flights, however, adjust for the movement you prefer.

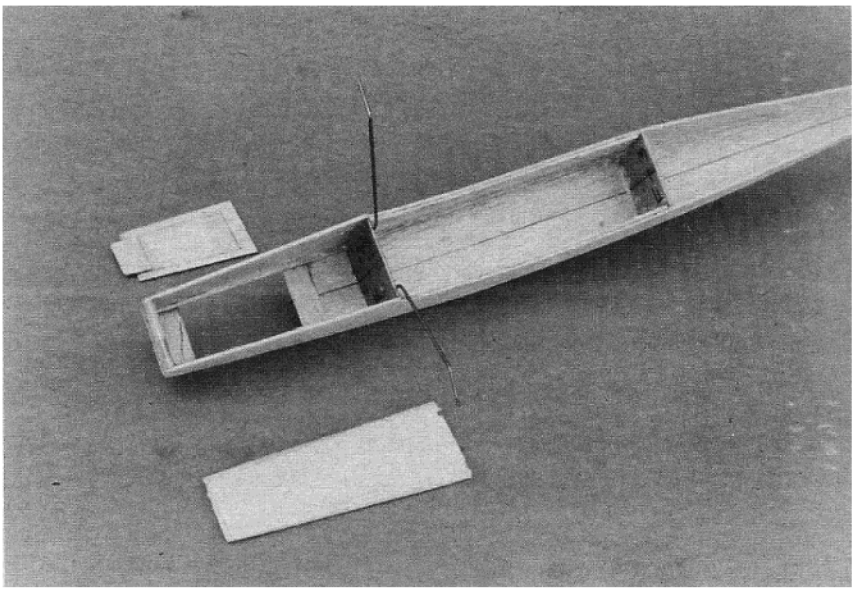
Solarfilm type covering may be used on the wing as well as the fuselage. If so, cover the ailerons before attaching them to the wing. Large lightening holes may be cut from the top and bottom wing to achieve a slight weight reduction. Balance, fit and attach wing to the fuselage with a wood screw, or blind nut and machine screw.

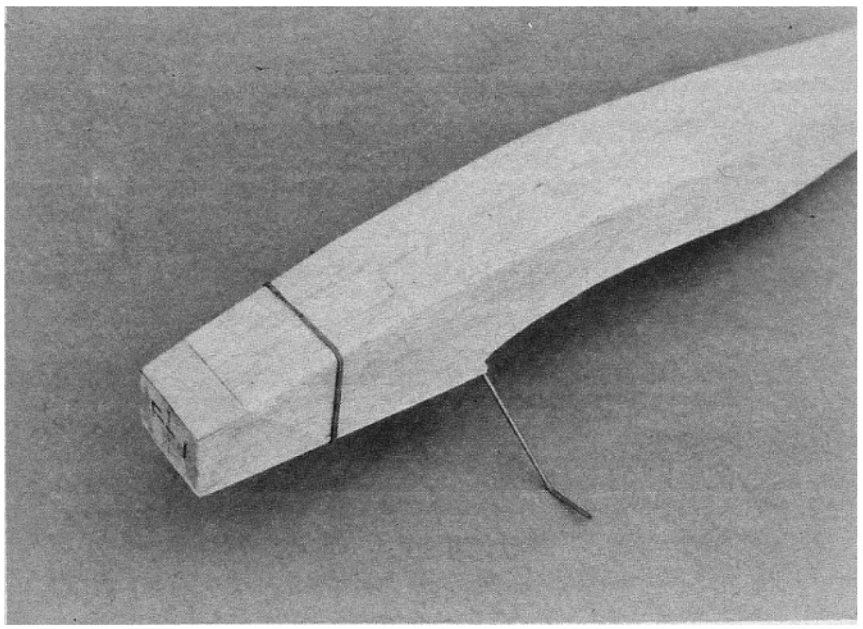
Flying: Set the C.G. as shown on the plans and, with the radio turned on, test glide into a tall grass area. Adjust the controls for a straight ahead glide, gas up with 30% nitro fuel (Cox Racing Fuel), and get the engine running fast and steady when the nose of the plane is pointed up. A gentle launch from an easy run and you're airborne. The ailerons are quite effective so be wary at low altitudes. Trim out and get the feel of the plane until the engine quits. Land, adjust the trims, refuel, start the TD, and head for the pylons.

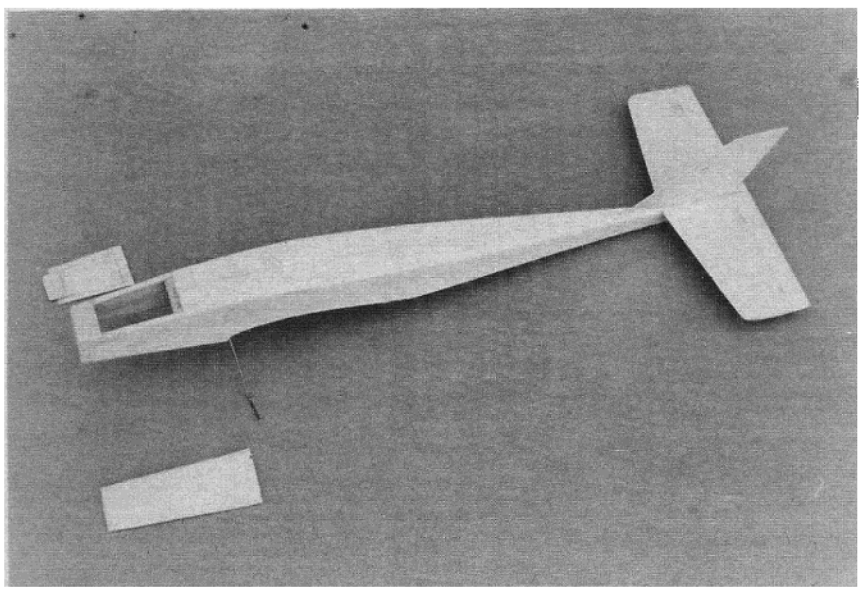
Engine: The Cox TD .020 engine is a miniature of the powerful TD .049 and is a surprisingly easy starting little powerhouse if properly fueled and maintained. Keep the engine, and the fuel free of dirt. The length of run, on the tank mount supply, is from 2 to 3 minutes. Connect a U-shaped piece of fuel line to both tank filler tubes to prevent in-flight fuel loss. A balloon tank will provide a longer flight time and the constant fuel pressure really needed for a steady engine run at all flight attitudes. Cox Racing fuel, or any fuel with a minimum of 30% nitro, is the recommended fuel to use. It gives lively performance and is easy on glow plugs. Use fuels with synthetic oils only to avoid the varnish build-up caused by castor oil lubricants. The best

propellers are the Cox black plastic 4/2.5P or the 4.5/2.5P. Avoid the gray ones, they break too easily.

One vital accessory which is mandatory with all Cox engines is the piston rod ball joint reset tool. Inside of one hour's running time the rod can loosen to the point where the engine will barely run if, in fact, it will even start. To check for this condition, remove the cylinder barrel, turn the crank to top dead center and, while holding the crank firmly, grasp the piston with two fingers and work it up and down. If a clicking or any excess losseness is felt, remove the piston-rod unit and tighten with the reset tool. The power and ease of starting will return dramatically. It's a great little engine. Cox does not sell the reset tool, for some reason, but it can be obtained at some hobby shops or can be purchased for $2.95 plus tax from Kustom Kraftsmanship, Box 2699, Laguna Hills, California 92653.

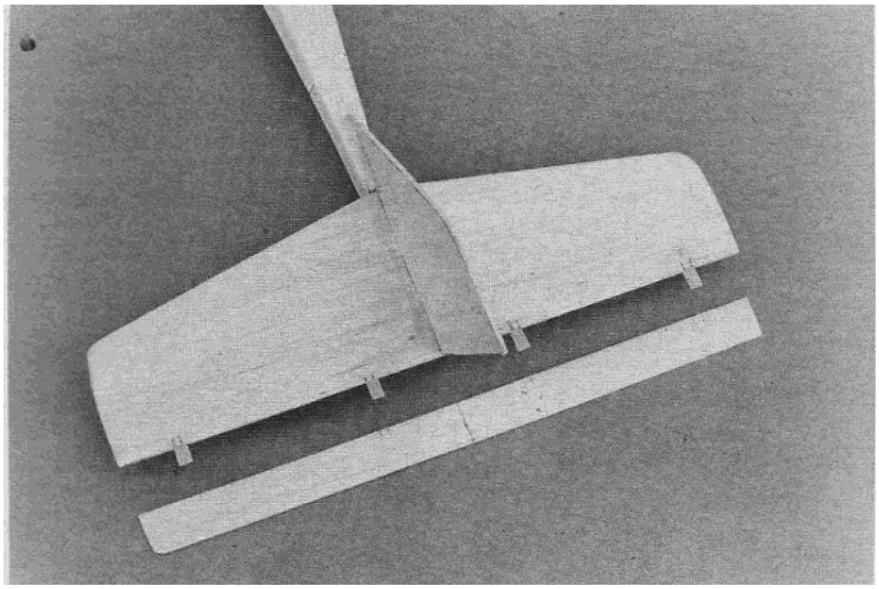






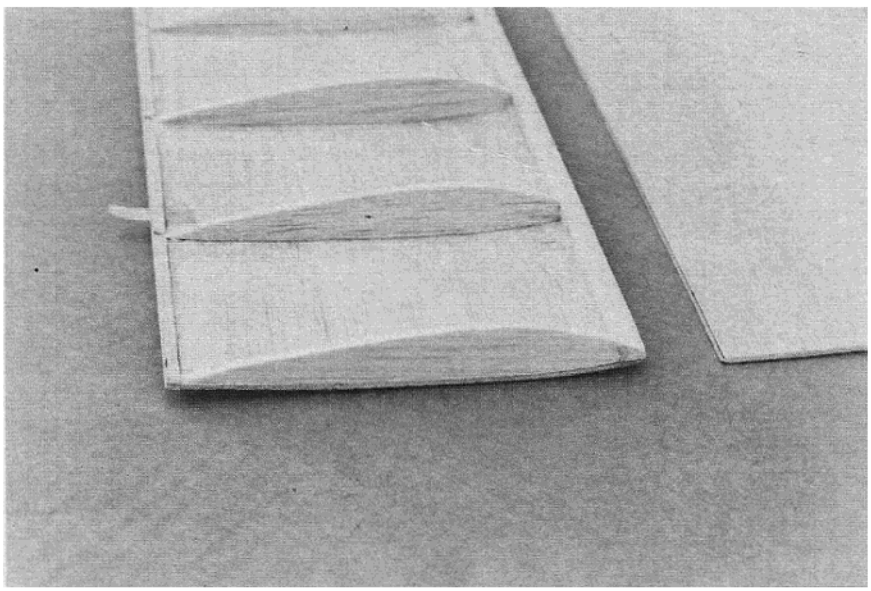
TYPE AIRCRAFT
1/4A Pylon
WINGSPAN
22.2 Inches Std.
(26.7" — Indoor Wing)
WING CHORD
5.02 Inches
TOTAL WING AREA
112 Sq. Inches Std.
(134 Sq. Ins. — Indoor Wing)
WING LOCATION
Low Wing
AIRFOIL
Semi-Symmetrical
WING PLANFORM
Constant Chord
DIHEDRAL, Each Tip
1/4 Inch
O.A. FUSELAGE LENGTH
20.5 Inches
RADIO COMPARTMENT AREA
Not Given
STABILIZER SPAN
8.7 Inches
STABILIZER CHORD (Incl. Elev.)
2.5" Average
STABILIZER AREA
21.75 Square Inches
STAB AIRFOIL SECTION
Flat
STABILIZER LOCATION
Top of Fuselage
VERTICAL FIN HEIGHT
2.83 Inches
VERTICAL FIN WIDTH
2.7" Average
REC. ENGINE SIZE
Cox TD 0.020
FUEL TANK SIZE
1/2 Ounce
LANDING GEAR
Conventional
REC. NO. OF CHANNELS
Two
CONTROL FUNCTIONS
Elevator and Ailerons
BASIC MATERIALS USED IN CONSTRUCTION

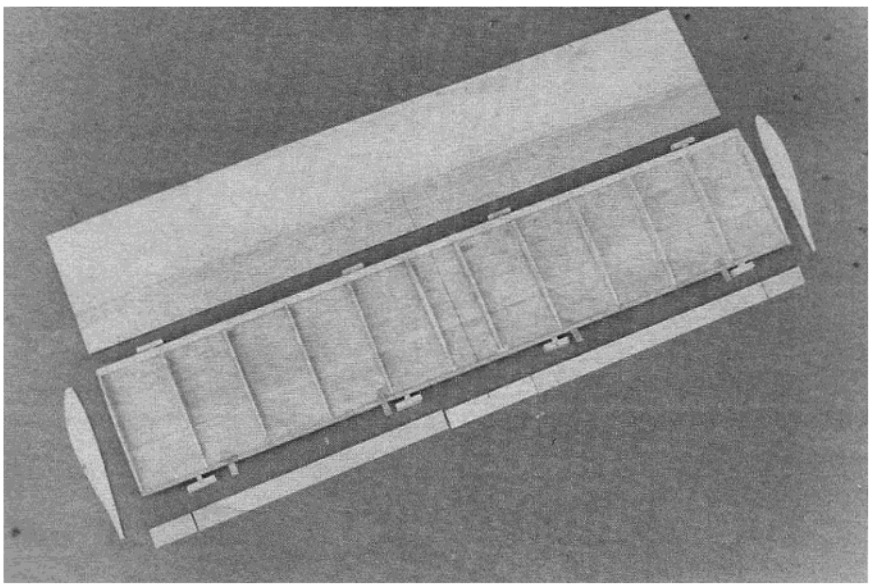
Fuselage	Balsa and Ply
Wing	Balsa
Empennage	Balsa and Ply
Weight Ready-To-Fly	7 — 10 Oz.
Wing Loading	9 — 13 Oz./Sq. Ft.



Objective
Same as Quickie 200 Rules
General
Same as Quickie 200 Rules
Model Aircraft Requirements
Same as Quickie 200 Rules
Engine
Same as Quickie 200 except for the 0.020 engine displacement
Engine Claiming
Not enough data available on engines
Throttle
None
Muffler
None
Propellor
Same as Quickie 200 Rules
Weight
Not less than 8 ounces or more than 12 ounces
Fuel
Same as Quickie 200 Rules

If you want a quickly built racer for indoor and outdoor events, try the Quickie 100. Designed for two channel mini-sets, and a Cox .020 engine, these small pylon ships can open up an entire new era of club sport racing at a minimum of cost.





Identification Markings
Same as Quickie 200 Rules
Workmanship, Operation of Quickie 100 Race, and Scoring
Same as Quickie 200 Rules

●

These proposed rules are for outdoor racing only. For indoor racing many additional rules might be necessary in the interest of safety:

1. All racers flown, tested, and trimmed prior to race.
2. Emergency engine shut-off may be necessary.
3. Each heat may be run in two, two-plane races with the winners determined by elapsed times.
4. A two pylon course might be used for spectator safety and no callers would be allowed. □