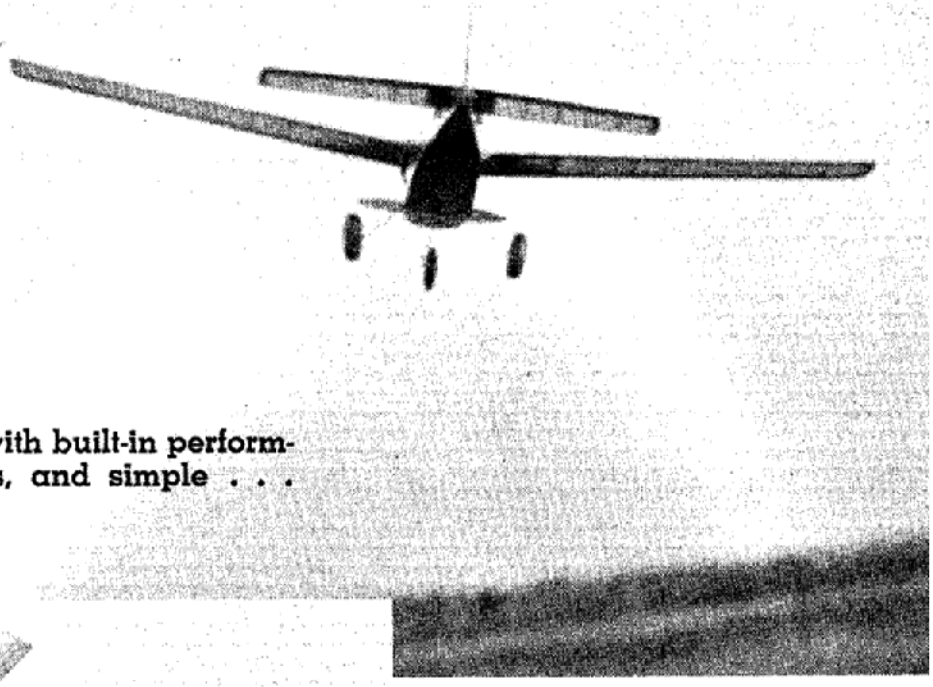
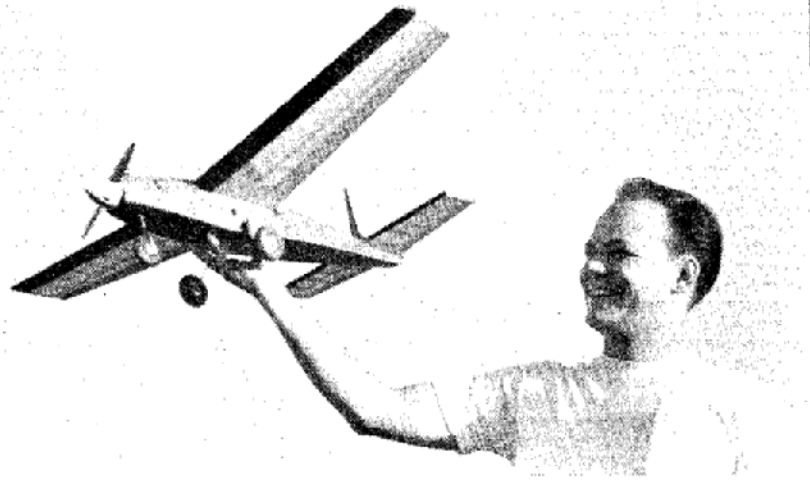
MISS L

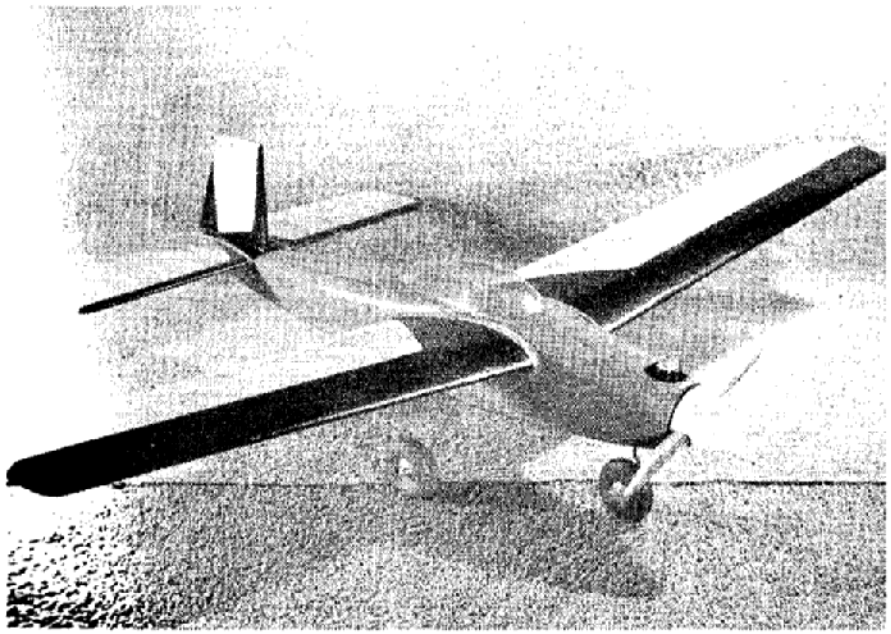


For that idle .049, a trim R.C. with built-in performance. Trike gear, good looks, and simple . . .

Her day's work done, Miss "L" touches down.



The nose gear is shock mounted with rubber. Shoulder wing design shows rugged construction.



[illegible] trim, spinner and canopy give Miss "L" a distinctive gracefulness and clean look.

By Ted Strader

▶ Until it was given away about a year ago, Miss "L" had racked up about four years of flying with many different engines and a variety of equipment. Lucky for us it was ruggedly built as the first few flights were a bit rough!

Once the glide was perfected, the next obstacle was powered flight. It was at this point that we developed a healthy respect for the Cub .075 Diesel. Swinging an 8-4 Tornado, this wild mill yanked our heroine to the edge of space almost before we could reach for the control button. Putting the prop on backwards did nothing to tame the power developed. After about a dozen such wild demonstrations it was unanimously decided that the Cub .075 would be more at home in a larger ship! It was not until we installed a Cub .049 and then a McCoy .049 Diesel up front that we began to really enjoy the ship.

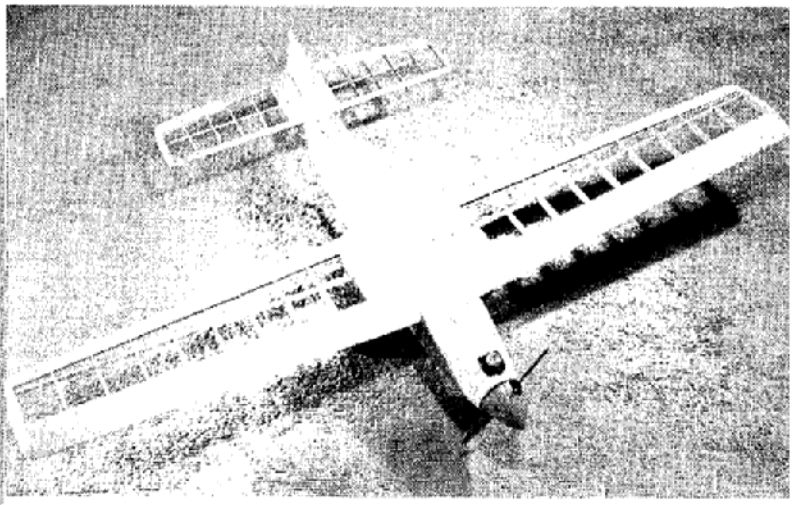
The plans show an escapement mounted and the ship resting on dural type landing gears. The original model was flown entirely on proportional control and the wire landing gear evident in the photos was replaced, after the ship had been flown about a year, with dural rear gears. This is not meant as a deceptive move as escapements are used much more than proportional actuators. The gear was changed to move the rear wheels forward in an attempt to help the ship ROG under the new reduced power. To this end we were successful.

MISS "L" continued

With regard to the general construction you should experience no real difficulty in making a successful copy of Miss "L". The main plan is one quarter scale and only the simplest working drawing is needed to start construction. The full size pages will give you any other dimensions you may need. Like any model success will be the result of careful construction and a warp-free airframe. The balance, as indicated on the plan, is quite important. As long as you stay within a quarter inch either way you should experience no difficulty in gliding or flying Miss "L."

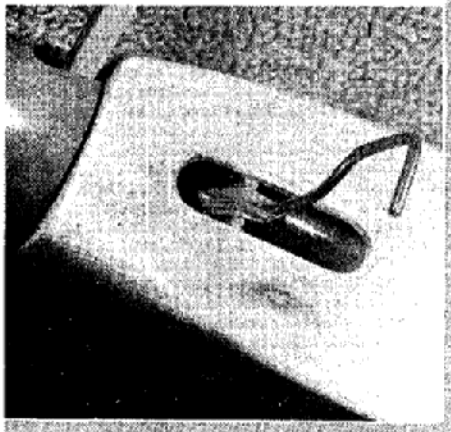
FUSELAGE: Enlarge the side pattern and cut identical pieces from matched 3/32" sheet, marking the bulk-

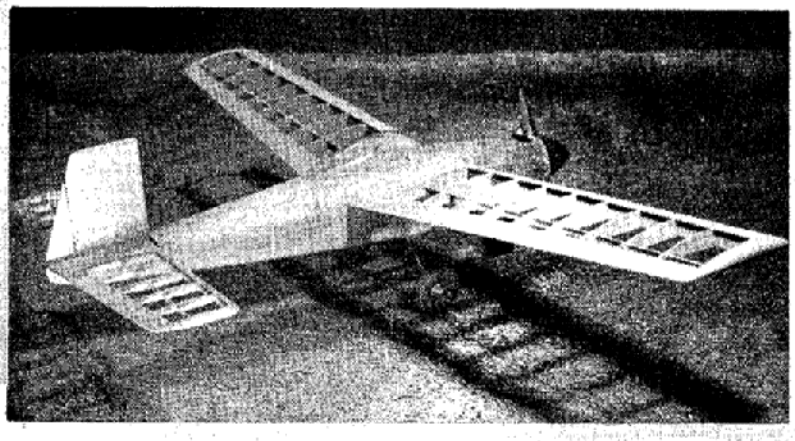
(*Continued on Page 35*)



(Above) Miss "L" in her undies. Light structure doesn't sacrifice her strength. (Below) Simplicity is the highlight here. She's a joy to build, behold, and fly.

Nose gear shows efficient shock mounting.





Planform arrangement has been well-tested.

(*Continued from Page 18*)

head locations as you go. Cut out doublers DD-1 through D-5 from 1/16" sheet and cement in place.

As this is drying cut out the bulkheads using the full-size pattern. At this time decide what equipment is to be mounted on which bulkheads and alter as necessary. We placed our battery packs between Nos. 1 & 2 in the original. If you decide to do so it will be well to make bulkhead 2 and 2-T of plywood and cut an opening in each so the batteries can be slipped into this part of the fuselage.

If an escapement is used then the rear bulkheads will have to be altered to suit the torque rod and holes cut for rubber bands. The firewall (No. 1) should next be prepared for the engine to be used (we installed hidden nuts) and the front gear bent and mounted before the bulkhead is cemented in place.

Now we can begin to put some shape into the old girl. Start the actual construction by cementing Nos. 2, 3, 4 and 5 in place. When this is dry, the firewall and the rear bulkheads can then be cemented in place. Once the control linkages have been installed and other necessary alterations taken care of, the bottom and rear top sheeting can be fashioned in place. The front top area between the firewall and 2-T is 1/8" sheet and can be made up of strips. When it is sanded to the proper contour this will mold in with the 3/32" sheet sides, The 1/16" stab rest can be added and the front blocks shaped and lightly cemented in place. Later these front blocks will be removed, hollowed out, the top one cut for the engine to be used and then permanently cemented in place. The bottom block is sanded somewhat square, as per section A-A and then sanded out to effect jowls at the bottom corners to act as air scoops.

The optional scoop is made of 1/8" sheet pieces. We were always going to add them and the dorsal fin but never quite got around to it! With the exception of the cabin block the basic fuselage is complete. The dowels are not installed until the model has been silked and all trim added.

WINGS: Little difficulty should be experienced laying out a working drawing for these wings. Construction begins by pinning these sheets which make up the trailing edge bottom, and the bottom leading edge sheet. Cut the tapered main spars of hard 1/8" sheet and pin them in place, then rough-cut the leading edge of 3/8" sheet (or a piece of 3/8" sq. may be used and the taper sanded in later). Cement the leading edge on to the forward part of the bottom leading edge sheeting. When all ribs in each section have been cemented in place, the top sheeting can be added to the leading and trailing edges.

The center section is built next complete with dihedral braces and when all parts are dry, the wing can be assembled. Keep a constant check on the frame to detect any warps. The 1/2" sheet tips complete the basic wing structure.

The cabin block is the next order of business and is shaped from a block 3 1/2" 1 1/2" 10" or any combination of blocks 10" long to arrive at this size. Once this block is shaped and molded in shape to the rest of the fuselage it is set aside until the wing is finished and is installed after the wing has been covered.

STABILIZER & RUDDER: The stabilizer should offer no challenge if reasonable care is excercised.

The 1/8" square spar is used only as a tool to help construction and offers very little actual support. We found it easier to build the stabilizer by spacing the ribs along the length of the spar, cementing them in place and then adding the leading and trailing edges.

Sheeting the center section and adding the 1/4" sheet tips about wraps it up.

The fin is simply cut from a good hard piece of 3/32" sheet and cemented into the slot provided in the stabilizer.

We have shown two hinge lines on the plans which have been found, through actual tests, to be the proper sizes for the type control you may use.

FINISH: Don't spare the sandpaper! When the entire model has been fine sanded. Paint on a good healthy coat of clear dope, let dry, fine sand and add another. When this second coat has dried, fine sand again and you are ready to silk the entire model.

We used colored silk on the original and got a good finish with five coats of clear. The only color was the black added to the leading edges of the wing and stabilizer. Add the dowels, wheels, engine, and radio gear and you are ready to try a test glide.

FLYING: When you are satisfied the ship has no warps and it balances where shown on the plans, you are ready for a test glide.

Our model weighed 40 ozs. which figures out to about a 22 oz. wing loading. This may be cause for concern but, oddly enough, there is so much lift generated by the wing section used that the model will glide to a perfect and gentle landing after an average type hand launch.

Hand launching for powered flight is a simple procedure. If you decide upon R.O.G., pick a long smooth spot as Miss "L" will be in no hurry to break away. The trike gear will keep it in line and then, eventually, the old girl will lift away and rise just like a full size craft.

To ease any pre-flight fears you may have as to unmentioned tricks she might try, we hasten to add that Miss "L" has been flown on many many flights with my thumb as the only pulser for the proportional actuator in the plane. Under the power setup we have outlined it is as gentle and as stable as any plane you are apt to build. •