



Overall effect is an attractive aircraft. The ship is well tested, a fine flyer, practical.

by Ted Strader

**R/C**

# MISTER "E"

*If nothing else, it's cute!  
Build several.  
Ted is sensitive.*

**FULL SIZE "SPECIAL EDITION" PLAN AVAILABLE**

Gees Bee floats quickly convert the "Mister E" to a seaplane. Wrap electrical gear in plastic.

**Single to Intermediate . . .**

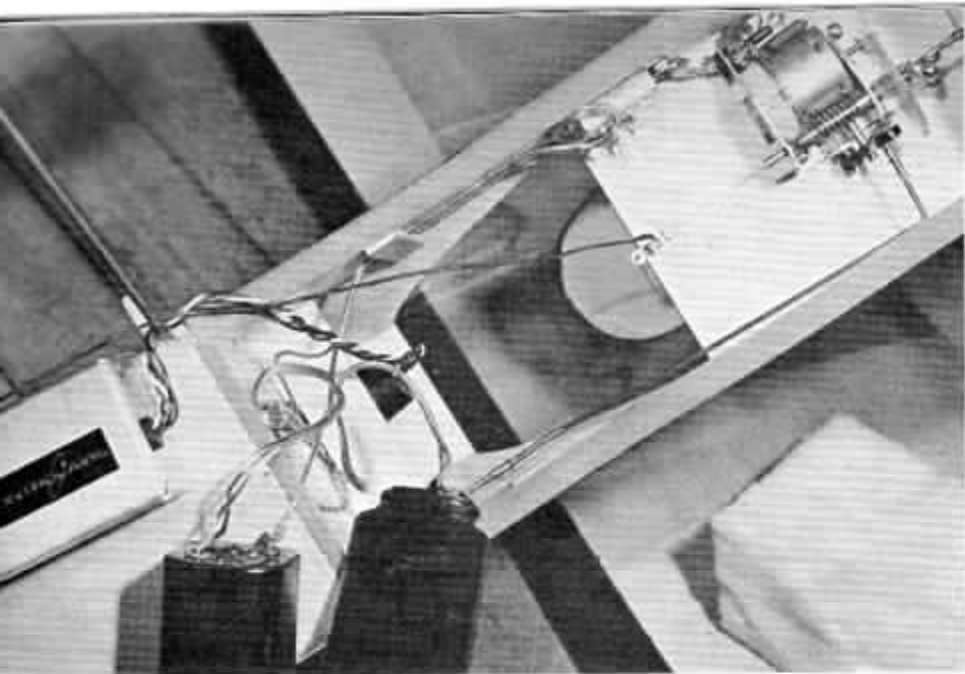
► Mister "E", a play on the word "mystery", personifies the circumstances surrounding the creation of this junior grade speed merchant.

Six days prior to the Northampton (Mass.) R/C Rally held this past June, I decided I'd like to have a new design to show the guys—and that's where the mystery began. What would it look like, how big would it be, what control would it have, how well would it fly and what would I call it—if I could get it done in time?

After making good use of every

**Takes .099 to .10 engines,  
50" wingspan**





My, my, what organized confusion. Controlaire receiver, Go-Ac actuator, battery boxes, etc.

Good little beast, sturdy, roomy, practical. Well trimmed to handle its share of the breeze, .10 engines, makes a good training craft.



available minute from Monday morning thru the Friday evening before the Rally was to be held, I was able to get the entire framework done and rough sanded—so Mister "E" had to make its debut sans silk. But interest was high and we were glad we'd made the extra effort to at least advance the project this far.

When the Rally was over we returned to business at hand-tailoring a silk suit to fit our Mister "E" so it would no longer be naked before the modeling world! Soon we would have the answer to two more riddles—would the project fly and would the little Fox .10 RC have the steam to get and keep it airborne? I was more concerned with the latter problem as our ship was outfitted with six pencils—two for the Controlaire "4" receiver and four for the Go-Ac—a respectable load for a .10 to haul in a 50 inch ship.

That day of days finally dawned—we were trapped by perfect conditions, all systems in a "go" state of readiness and there we stood in the middle of the airstrip without another plausible excuse for delaying the inevitable! This can be a nerve racking time for the faint of heart!! Of course I had an ace up my sleeve in the event I was trapped on the field with an audience during the maiden flight—I then resort to plan II which consists of not allowing the engines to rev up to maximum and insisting upon an R.O.G.!!? . . . . after all—who can blame me if the ship doesn't have enough gumption to take off under its own power?

The engines started on the second flip (during Plan II we prefer it to be balky!!) It wound up like a turbo-prop and I hit the Signal Off button on the transmitter which causes the Go-Ac to go to Low Engine — that sounded better — real low power . . . not enough to taxi even on a glass surface.

Our hero is now pointed in the right direction for take-off. From here on in it's like any theatrical production. The star is ready to perform at the touch of the Hi-Engine button, the stage manager is ready to dim the lights and raise the curtain (while nervously fumbling with the stick!) and an audience is waiting with mixed emotions. Half of them hoping to see a good flight and the other half silently "making book" on how many pieces we'll pick up when it's all over. But I'm not wor-

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Molded pants add to appearance & reduce drag.

The ship is attractive, light, and inexpensive.



. . . continued . . .

# MISTER "E"



## MISTER "E"

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ried . . . I just noticed the condition of the field—it hasn't been mowed in a month and even freshly mowed it's almost too much for the high powered multi ships to overcome for an R.O.G. Hit the Hi-Engine button . . . let's get it over with!! Give 'em a few ground loops—show 'em we tried—then abort the flight until some time when no one else is at the field!

The Fox .10 went from Low to Hi without a moment's hesitation and never sounded more ominous. Mister "E" began to move forward. Give it a touch of UP to keep the tail down . . . maybe with luck we'll get the G-G Coupling wires tangled in the high grass and it'll be all over. It's still moving—only faster. The elevator is neutralized and the tail pops up. It's now about 30 feet out and traveling straight as a die—sunofagun!! — looks like it's going to taxi all the way across the field and run into the high grass. Better give a bit of UP to drop the tail back down.

That did it! But not according to plan. Our hero is ad libbing now . . . it's airborne and flying beautifully. I'm coming unglued!

In all seriousness, this pretty much describes the first R.O.G. of the Mister "E". However, this was not its first flight. Actually one of my side kicks, George Van Wagner flew it first while I was trying to get a flight picture. Prior to this we had spent a couple of days test gliding it under full Go-Ac G-G control.

My conclusion to the little saga is a paradox. It has a very gentle glide and will fly under low power without any tricky tendencies. On high power it is as maneuverable as you could want with excellent control response.

It may appear that the elevators are undersize. This was done purposely as we planned to fly the ship via Go-Ac for Galloping Ghost and laid out what would seem to be sufficient elevator surface for control yet small enough to dampen any tendency the ship might have to "gallop" . . . if possible. After observing the flight characteristics—and recovering from such nerve shatterers as low altitude dives, I would conclude that this size elevator would be sufficient for any type of

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# BONNER'S NEW DIGIMITE R/C SYSTEM USED BY MAJORITY OF WINNERS AT NATS & INTERNATS

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1st place Nats Goodyear, Weirick & Woods with Long Midget & Bonner Digimite

1st place Nats Class I Open, Jackie Gardner's road Champ — Bonner Transmits

2nd place Internats, Chris Townsend's original using Bonner Digimite

2nd place Nats Class I Open, G. Gardner's Sigma 7 — Bonner Transmits

2nd place Nats Class II Open, Lloyd Seger's Mac 17 — Bonner Digimite

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## MISTER "E"

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control. After a few flights—if you happen to be the "firebrand" type, you can always cut away a strip of horizontal stabilizer and add larger elevators.

One other item: You'll notice that the engine has very little downthrust—only one degree. Hotter or larger bore mills may require one or two additional degrees of down-thrust and possibly a bit more right thrust than shown on the plans. The mating of the Fox .10 RC and a Tornado 8/4 prop at the settings shown was the original layout and has remained unchanged.

One addition to the original design which we executed after a brief en-



A Fox .10 nestles into front end, ample power.

counter with Hobbyoxy's roving ambassador, Bev Smith, was the wheel pants set. These are fiberglass, filled with Hobbyoxy Formula II glue, ala the "Easy-Does-It" method. As noted in the photos, these enhance this or any design and are well worth the effort.

To save time, I made one wheel pant mold of two sheets of 1/2" balsa sheet lightly glued together while it was sanded to shape. Once finished, the two halves were separated and each glued securely to a stick. The raw wood forms were left untouched—no filler or coating to protect them from use. Saran wrap and then the glass cloth were added as per the Hobbyoxy instructions. Next a Formula II glue spread on and finally the balloon pushed over to smooth out the form and hold everything in place. When the two Hobbyoxy pants were finished and installed on Mister "E" it was the touch we were looking for.

So much for introductions—let's get on with the main event.

● **CONSTRUCTION:** The basic fuselage sides, cut from medium grade 1/8" sheet balsa, are reinforced from stem to stern with a 1/8" x 1/2" balsa strip doubler. Addition of the remaining 1/8" sheet balsa and ply doublers will prepare the sides for primary construction. Cement the two 1/4" plywood engine bearers to the 1/8" plywood fire-

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# MISTER "E"

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wall and position in place between the two basic fuselage sides. Next cement bulkhead #2 in place and check entire construction for accuracy thus far. Remaining bulkheads can be cemented in place after provisions for control linkages are made and equipment placement has been decided upon. The landing gear bulkheads which make up the plywood sandwich can be cemented in place to retain the  $\frac{1}{8}$ " wire gear. We cemented this assembly together with white glue, clamped it until dry and it is still withstanding much punishment.

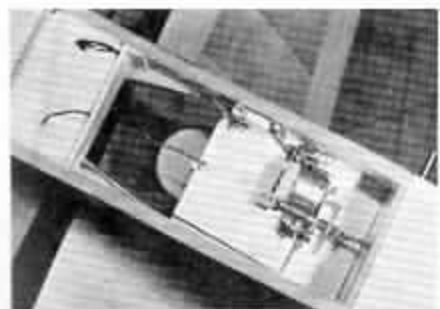
The stab and fin, both of  $\frac{1}{8}$ " sheet balsa, should be cemented in place prior to adding the upper rear  $1/16$ " sheet sides. The upper front  $\frac{1}{8}$ " sheet balsa sides can also be added at this point. If all control rod and equipment placement provisions have been taken care of, the top and bottom sheeting can also be added which just about completes the basic fuselage assembly. We left the dowels for installation after final painting. The tail skid, if used, was cemented in place after fuselage had been sanded. The wire skid was white glued in place and then liberally coated with dope during final painting.

● **WINGS:** Pin down the  $1/16$ " x 3" length of bottom leading edge sheeting. Next pin the  $1/16$ " x  $1\frac{1}{2}$ " bottom trailing edge sheeting and then the  $\frac{1}{8}$ " x  $\frac{1}{2}$ " main spar. Before cementing the ribs in place, cut and fit the bottom root area sheeting. Now the ribs can be added. The  $\frac{1}{2}$ " square balsa leading edge is added next and then the top leading and trailing edge sheeting cemented in place.

Cement the dihedral brace to one of the two wing panels—which one is not important at this point. When both wing panels are completed to this stage, one can be blocked up 5" while the opposite is pinned flat to the bench and both joined together. After the wing panels are thoroughly dry, the remaining top root area sheeting can be fitted and cemented in place.

Sand  $\frac{1}{2}$ " square leading edges to conform to the wing curvature by first sanding chordwise in a gentle sweeping motion with medium grade sandpaper. Smooth out the job by sanding

Underneath shot shows access, storage areas.



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# Mister E

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spanwise with finer sandpaper. The addition of the tips will complete the basic wing structure.

● **TAIL SURFACES:** We've already made short work of the stab and fin so all that remains are the rudder and elevators. We attached our flappers with cloth hinge materials, though you may use some other more elaborate method of doing the job.

● **FINISH:** Our entire model is covered with yellow silk topped off with black trim. To prepare the framework for this we applied two coats of clear dope and sanded it smooth. The silk was put on wet. In the case of the wings, we always silk the bottom first to help cut down the possibility of warps. Silking single sheet surfaces such as the stab and fin can be disastrous unless done with extreme care and as fast as possible, as such single membrane type units have a bad tendency to warp. Let's dismiss this by stating simply that in this one instance we were lucky!

Five coats of clear butyrate dope seemed to close up all pores and leave us with a nice gloss so we stopped there. After a day's wait for this to dry we masked off the masculinely monikered (if that's kerreck english) and applied the black trim. The windshield and dowels weren't added until all the R/C gear had been mounted in place.

● **FLYING:** Modelers will talk about their newest ship "flying right off the

board", but it ain't necessarily so. It offends my sense of dishonesty to tell the truth but in the more than several years I have been designing planes I can only recall two which actually flew right from the start without any additional alterations. Those two models were not Gypsy and Nomad as might be expected. They were the Chicken Hawk and the Mister "E". (Yes, it surprised me, too!!)

The equipment arrangements used in this ship will be almost as varied as the color schemes, so we'll stress the necessity to have yours balance at the point shown on the plans. In our set-up we mounted the Go-Ac on the servo platform. The Controlaire "4" receiver, wrapped in foam, is positioned aft and flat against bulkhead no. 2 with a false plywood plate directly behind it to keep the receiver from moving. The six pincells, two in a two-cell and the four servo batteries in a four-cell Du-Bro battery box are foam cushioned in the lower cavity between the firewall and bulkhead no. 2. The tank, made from a  $1\frac{1}{4}$  oz. converted glue bottle, sets in the area just above the batteries—separated by a  $\frac{1}{8}$ " sheet balsa floor. This floor can be cut out easily to accommodate a two ounce round type tank with no sacrifice to the strength.

Once you're finally ready for the weed patch, make one last check for warps, recheck the balance point and then give your effort a few test glides. The gentleness of its glide may surprise you as it did me. If you can get a nice flat glide without either a dive or a ballooning effect, you're probably "on the money." Fire up your powerplant, set it in the tall grass and then tell everyone you'd have been glad to fly it if it would only R.O.G.! (Don't be surprised if you see it slowly climbing up out of the weeds on the far side of the field.)

Good Luck and Good Flying . . . and, oh yes—just in case I forgot to change the ad (another of my duties) for Special Edition Plans, full size plans and the kit will be available by the time you read this. I'm still recovering from the bruises for forgetting about the Scorpion!



Aft end's linked up like so. It's gorgeous Ted.

DECEMBER-JANUARY 1966

DESIGNS AND DATA

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