

New VISTA 49



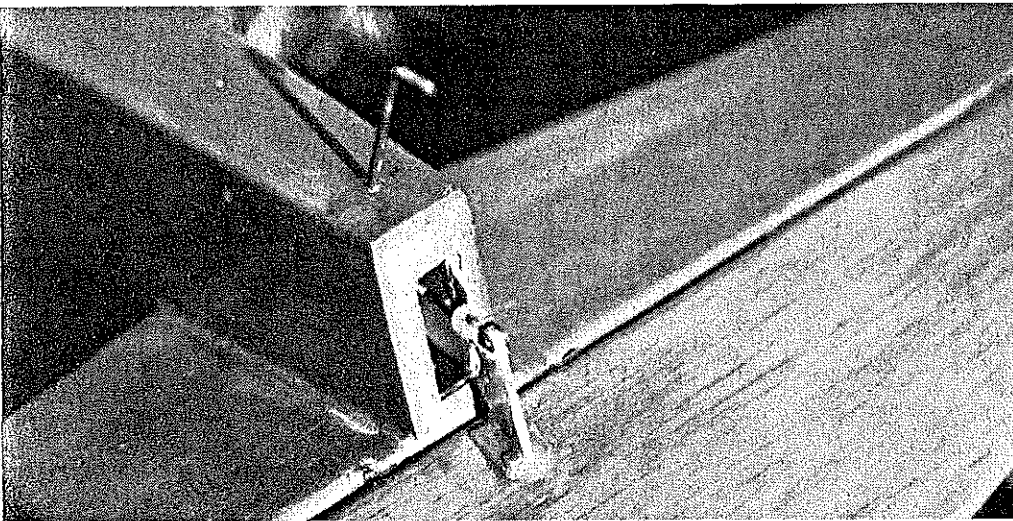
The author beams with fatherly pride as he holds the Vista 49. Yes, it's big—but also simple. If you've never flown one of these light, flapless "barn-door" stunters, you've missed an exhilarating flying experience. The photo at the bottom shows the airplane from which Vista was developed. It was taken at the 1949 Plymouth Internats. The young modeler is not identified—the photo was found in the attic of the author's mother's house only recently!

311

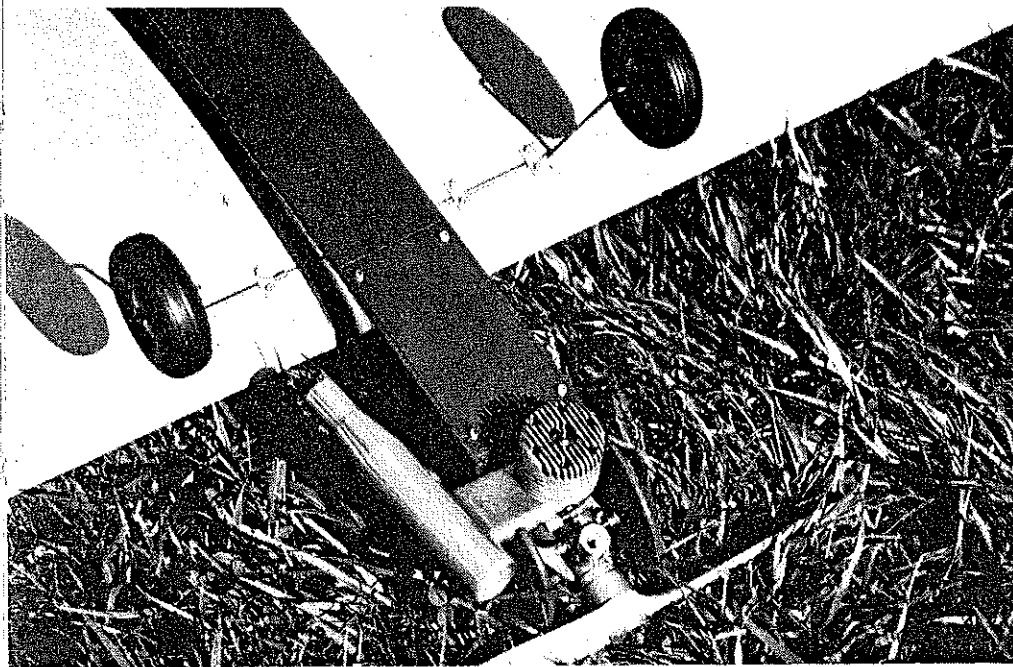


This is not a Pattern ship. Nor is it a Trainer. It is, says the author, "A large and articulate fun flier." Actually, it is a scale-up from a 31-year-old snapshot found in an attic.

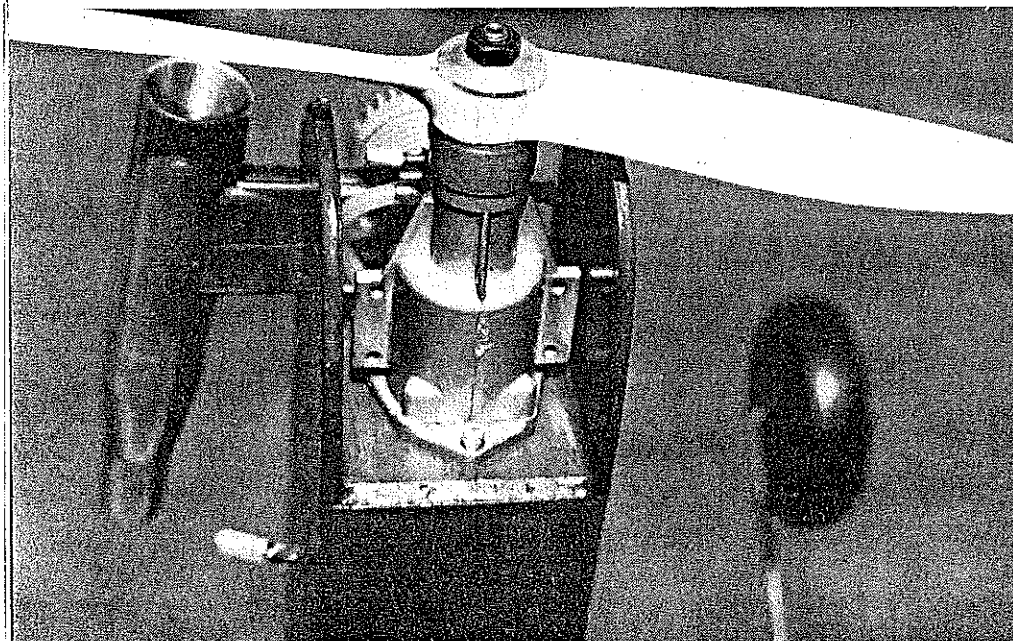
● **David Marshall**



Note the use of RC control horn, clevis on pushrod. Trim the cutout in the aft former so that the pushrod, horn, and clevis do not drag on it. You MUST use a keeper on the clevis in a CL model.



A clear view of the underside. Note the four screws holding the fuel tank hatch cover and the RC-style torsion-bar strap-on landing gear. That's a SuperTigre .60 in the nose—needs the muffler.



The author used a custom SuperTigre backplate designed for radial mounting. This type of mounting makes for a very neat front end. Your installation will depend on the engine you use, and whether or not you can get or fabricate such a backplate. Use a radial RC mount as last resort.

and at lower speeds, the Vista 49 outflies the Super Duper Zilch. The wing area does the trick! The new model flies very well, as expected. The dive in the hourglass maneuver is a pleasure, as this model does not accelerate much. It also turns reasonable square corners with practice.

The old Orwick engines had no beam mounts; therefore, they were usually radial mounted on the firewall. This arrangement has been used in the new model by using a factory engine backplate made for Supertigres for radial mounting. The advantages are strength, ease of engine removal without removing the muffler, and more room for a fuel tank behind the firewall. The Sullivan 6.0 oz. slant tank fits snugly into the fuselage as shown in the plans. Also, I have placed the landing gear in the wings to allow more room for a fuel tank in the fuselage. If you choose to use a conventional stunt tank, you will have to cut into the lower part of the "D" section of the wing. This is all right, and a 6.0 oz. fuel tank will fit. Beam engine mounts can then also be used. The plans include information on installing a smaller .40 cu. in. engine. In retrospect, I recommend using the larger engine.

Wing: The wing can be built in two halves on a workbench or on a wing jig. Use white glue on all joints for strength. Use hard 5/16 square balsa spars, and add the 1/8 sheet spar shear webs after the wing is framed and sheeted. These webs greatly increase the strength of the wing, and *they must not be omitted*. The control system is mounted completely behind the spar, and the push rod with Z-bend is located in the outer hole of the bellcrank (e.g., 1.0 in. from the center of the 3-in. bellcrank). The landing gear blocks are reinforced using 1/8 plywood half ribs. Use epoxy glue for the landing gear block joints and the bellcrank mount joints. Be sure to add one ounce of lead weight to the outside wing.

Fuselage: The sides of the fuselage with their plywood doublers can be placed on the wing, using epoxy glue or "Sig Epoxolite." The bulkheads are also then added and glued into place. Then install the engine, the firewall and the tank. Add the top and bottom sheets, and the fuselage will be complete. Notice that I have added 1/8" square stringers to strengthen the fuselage corners. Don't forget to add a pushrod guide midway along the pushrod.

Tail Surfaces: The tail surfaces are made from hard 3/16 sheet balsa. They can be made from two 3/16 x 3 wide sheets. Be sure to use epoxy glue on the nylon hinges to secure them in place.

The tail assembly can now be epoxy-glued to the fuselage. The elevator horn can then be connected to the pushrod. The elevator should deflect 40 degrees up and 40 degrees down.

Finish: The wing of the photo model is finished with blue MonoKote, first on the bottom panel and then the top panel, to within 1/2 in. of the fuselage. The fuselage and tail were brushed with three coats of Aerogloss sanding sealer, and then lightly sanded between each coat with 400 grit sandpaper. The fuselage was then painted with three coats of Aerogloss "Fokker Red." The joints between the fuselage paint and the wings' MonoKote are striped with 1/4" white vinyl tape. Be sure to fuel-proof the engine and tank compartment with epoxy paint in order to fully protect the model from fuel.

Flying: With the C.G. and controls as shown on the plan, the model flies very well; however, all models vary in their flight characteristics, and the modeler will need to trim his model to suit his

Continued on page 118



New from Proctor 1/4 SCALE 1918 NIEUPOORT 28 C-1

For additional information on this W.V. 1 Classic and our Catalogue, send \$1.00 to PROCTOR ENTERPRISES, CORP., P.O. Box 9641, San Diego, CA 92109.

IN STOCK FOR IMMEDIATE SHIPMENT

QUADRAS \$89.95

QUADRA REPAIR- \$10.00 plus parts
Jim Messer's ERCOUCPE KIT- \$199.95*
Concept's BIG FLEET KIT- \$179.95*
Barkley's TIGER MOTH KIT- \$229.95*

*(Includes FREE Du-Bro Wheels)

1/4-SCALE PLANS FOR QUADRA:

ERCOUCPE, SKYBOLT- \$20.00 ea.
SUPER STEARMAN- \$24.95
ZINGER & TOP FLITE PROPS- 10% off
BALSA & SPRUCE, all sizes- 45% off
COCKPIT KIT for Ercoupe- \$15.00, for
Stearman - \$18.00, for Fleet- \$18.00
RADIAL ENGINES, for Fleet- \$30.00
COVERITE in 15' rolls - 20% off

24-Hour Service . . . Add \$2.50 postage.
Send Bank Check or Money Order to:

JIM MESSER'S QUALITY MODEL
PRODUCTS

106 Valley View Dr. Allegany, NY 14706

Especially liked your article where you listed those planes that are good steps to pilot proficiency. Think you should frequently list those planes in your column or refer readers back to past issue that gives details for sake of new or occasional readers of *Model Aviation*.

In answer to Larry's letter, I feel that there are beginning planes available in control line, and there are, from time to time, beginning or novice articles in the magazines; not with the frequency of beginning radio control articles, but let's face it, there are just many more RC fliers. There are writers out there who could produce articles on beginning control line flying, but they don't appear with the regularity of writers who have a successful competition plane. It will take more crusading CLers like yourself to get the ball rolling and assist the beginners. (Editor's note: See the May, 1979 issue of *Model Aviation* for the construction article for the *Crashmaster*, a superb beginners' CL model. It comes in two sizes, too! It is available as full-size plan No. 262 for \$1.25. See page 128 for ordering instructions. RBM)

For information on precision aerobatics or PAMPA, write Wynn Paul, 1640 Maywick Drive, Lexington, KY 40504.

RC Racing/Lee

continued from page 39

all expected the new Slow Rat to be a real good one. John went over one night to Frank's home and they very carefully jugged up a block of foam and cut John some cores for his new super Slow Rat. John got all the controls installed, had the wing sheeted and was building the fuselage. Boy, he was really making progress, got the wing all glued in and was going to cut the opening in the bottom wing sheeting for access to the internal leadouts. John, being the superior Houston Racer that he is, had even gone so far as to make a template, as he was installing the controls so he would know EXACTLY where the leadouts would be when the time came to cut the opening. Well . . . you've undoubtedly guessed it by now! John cut the bottom sheeting on the wing, but for some reason the sheeting was still stuck to some foam and wouldn't come loose! So he dug a little out, only to find more foam instead of the opening for his leadouts. Upon some intensive examination, John had the thought to shake the wing to see if he could hear the leadouts rattling around inside the wing. And he *could*—but inside the outboard wing! Seems John had done such a nice job on the wing that he installed the controls on the wrong side. Oh, well, John, maybe some day we'll come up with "inverted Slow" and you'll have just the plane for it!

The next story I must tell is about Ric, the poor unfortunate soul who bought Frank's old 5.8-powered Slow Rat. Ric is a relative newcomer to Control Line Racing, having been predominantly a sport flier up until about three years ago. Ric has come a long way in those years, he's still not a nationally competitive Houston Racer like Frank and John, but still an OK guy. Now, here in Texas we fly an event I've mentioned before called "Quickie Rat," which is designed around profile Rat racers that are easy to build and fly. They are so easy to build that you can whip one out in an easy week. Ric had built one that I had been flying for him and it was getting pretty tacky, so he decided to put together a new one for the Southwesterns in Dallas, last Labor Day. All I heard for a week before the contest was how neat this new Rat was and how it was really going to be a good one. Well . . . Labor Day weekend came and we're all in Dallas to fly. Ric brought

RC Pylon/Hager

continued from page 29

some liquid soap on both O rings' grooves and install the silicone #006 O rings. Lubricate the inner O ring only with Lubriplate #106 or a good lithium grease.

Reassemble the needle valve unit, but do not grease the outer O ring. You will find you can move the air adjusting arm with 8 to 12 in.-oz. of torque, which is well within the strength limits of even the KPS-18 and FP-20 servos.

The next step is to mill a groove with a .375 or 3/8 cutter .300 in. deep in the side of the mount. You can put the needle up or down, whichever turns you on.

The center of the groove is cut .887 from the back of the mount. You then drill and tap two 4-40 holes on each side of the groove. Then cut a small metal strap and drill two holes in it to clamp the needle valve unit in the mount. Run Hot Stuff around the needle valve unit and screws to cement the whole mess in the mount. Cut a hole in the fuselage to clear the needle valve, and install the mount and needle valve unit.

Install the fuel tubing running from the tank through the cutoff into the new needle valve inlet. Remove the needle valve assembly from your engine's carburetor, then make a dump into the carb out of a Super Tigre or a K&B fuel inlet (preferably K&B, since they are made in one piece). Screw a nylon bolt in the other side of the carb, where the needle valve used to be. Cut off flush with the inside of the carb. Then Hot Stuff the nylon bolt in place. Hook the in-flight unit needle valve outlet to the carb with fuel tubing, and you are ready to go.

The beauty of the unit is you can actually change engines and not have to install or even turn the needle valve. Once the engine is set in the morning, all adjusting is done from the transmitter only. This allows the pilot to lean or richen the plane in the air, as long as any piece of the glow plug element is left at all.

I will try to pass on hints and tips as I get them. If you have any, send them to me.

Bill Hager, 4622 Bridgeport, Garland, TX 75043.

Vista/Marshall

continued from page 36

personal requirements. Using a 12-6 propeller and a .60 cu. in. engine, the model flies best with the engine running on a fast "4 cycle," just as you would run a pattern ship. The model is too slow when the engine is too rich, and too fast when the

engine is lean. I fly the model on .018" diameter lines, 70' long. The lines are a little slack on wing-overs when the engine is too rich.

CL Aerobatics/Paul

continued from page 38

straight. It may take more than one operation to get it right.

There is also a chance that in Paul's case the leadouts may be too low compared to the center of gravity, especially since the plane has an inverted engine. As Chris Lella pointed out in his trimming articles, this could lead to improper vertical balance with the result being the outboard wingtip flying up. However, since this is a kit and not an original design I would not look for this.

There is also a chance that somehow Paul may have too much inboard flap causing the inboard wing to stall out on outside maneuvers with the result being the outboard wing comes up. On inside maneuvers there may be just enough tip weight to counterbalance the stall, so it is not noticed.

Lastly, Paul may want to try adding more tip weight to help hold out the plane on the outside maneuvers. This is, of course, the easiest solution but he should try it as a possibility. More tip weight will really help the hourglass and vertical eights. Of course, too much tip weight and the wing will start dipping on inside squares, the familiar hinging action.

To conclude, I still feel that Paul probably has a built-in warp of the wing and will either have to "tweak" the flaps or steam the wing.

The following is a letter received from Larry Miles, 6595 Foxridge Drive, Mission, KS 66202: "I frequently see kids and adults who would like to get into UC flying. But I am ignorant as to what good UC 1/4 A planes are available. All the magazines seem to be strangely silent about beginners' UC. What's a guy like me and the hundreds of others to do about advising newcomers about easy to build, sturdy, inexpensive and flyable beginners' planes? Nobody is looking after the beginning UC needs and that doesn't make good sense, seeing as how UC is the most adaptable to city dwellers' use and is easiest to learn. Cox has come out with an electric UC for about \$7.00 at K-Mart and Woolco. They claim it is the easiest UC plane ever to fly. I'd like to see a product review on that plane. If Cox's claims are true and it has no serious defects, it would be ideal for beginning pilots.

"If you are unable or don't feel that your column is the right place for these types of articles, I request you forward my letter to someone who can and does believe that beginning should occupy a large portion of the magazine.