



Nothing proves a plane more than a good picture of it in flight. Steady as a rock is best

way to describe our Mustang as it grooves just off the deck as shown in this fine flight pic.

Mrs. Sieverling. Modeling's best known wife as each of his article features her with his plane.

# MUSTANG STUNTER

By **CLAIRE SIEVERLING** . . . SEMI-SCALE STUNT CONTROL-LINE AT ITS OUTSTANDING BEST. POPULARITY OF THIS EVENT IS GROWING WITH LEAPS AND BOUNDS.

► The Mustang is another worthy addition to the line up of semi-scale stunt planes which have been published or kitted recently in answer to the growing popularity of the semi-scale stunt event. I believe that this event will increase in popularity for two main reasons: (1) it is more satisfying to fly *and* watch semi-scale ships, and (2) a semi-scale ship scores higher in the realism category of the present AMA score sheet than the typical stunt design. There are also numerous lightweight details which can be added to catch the judge's eye and win that all important extra point or two.

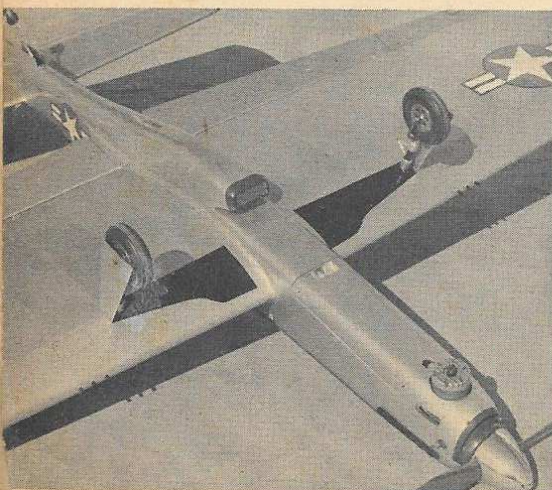
For you sport flyers, study the plans carefully and you'll note that there is nothing any more difficult in the construction of this model than is found in the typical sport or stunt model. Add a throttle system and you will have a very realistic model which should give you several years of flying fun.

For you other fellows, who get your kicks out of adding all kinds of small details to a model, as I do, here is a king-sized model with no limit to the amount of detail which

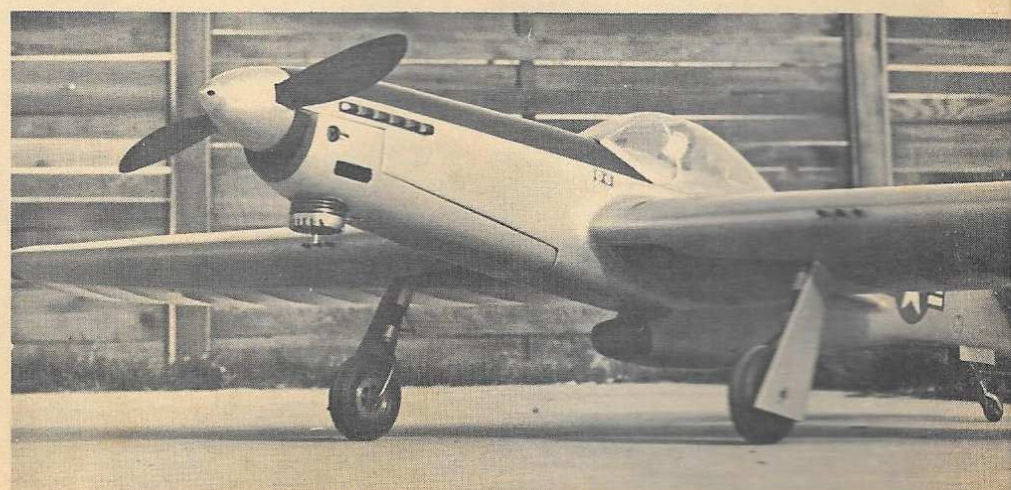
may be added without ending up with flight characteristics similar to a brick! Retractable gear, sliding cockpit canopy, movable control stick, .04 caliber guns that really fire—down boy!

To get serious, the Mustang was not designed from scratch, but was evolved from my Phoenician (MAN, November, 1961). Basically, I took the Phoenician design, added an inch here and deducted an inch there, modified the moments and areas slightly, hung an air scoop on the bottom and I had my first of two Mustangs. About the time I got it de-bugged, someone asked me how long it had been since I had creamed one of my stunt planes. I thought for a minute and told him it must have been in 1955 or 1956. Well, a funny thing happened to me on the next flight . . . ! To make a long story short, Mustang II was built, and is presented here. The flight characteristics equal the Hurricanes, Spitfires, PT-19's and other semi-scale stunt planes I have flown.

The plans should adequately explain most of the construction details which are fairly (Continued on page 43)

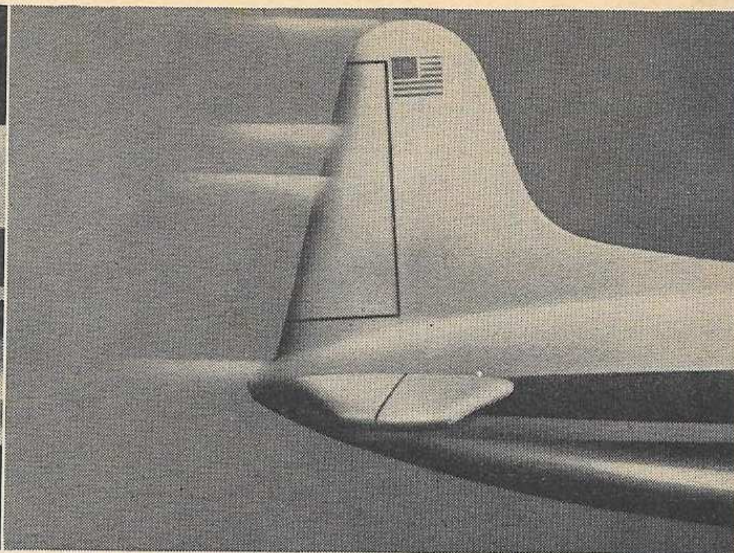
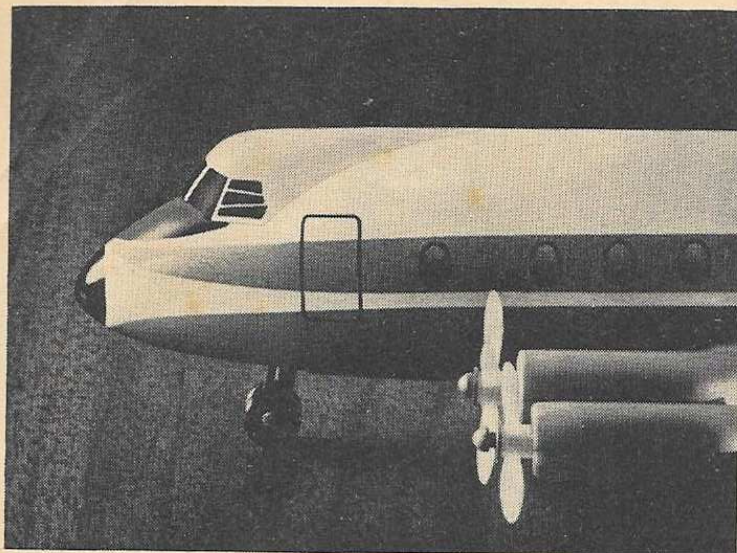


Shot of the underside of the plane shows many of the little refinements that make a plane.



This close-up of nose indicates how much authenticity can be built into a semi-scale

without overburdening the model with details. Dummy guns and exhaust stacks add a good touch.



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### Mustang Stunter

(Continued from page 22)

standard for most of the modern-day stunt designs, so I won't waste space by telling you how to glue the leading edge to rib 1, then rib 2, etc. There are a few points, however, which it will be well to clarify in this text. Refer to my Phoenician article if you have it in your library for a short synopsis of my thoughts on the use of

fiberglass (I'm for it, if used discreetly), control movements, etc.

Since the Mustang is a large model, try to keep the weight within the limits set forth on the plans. The problem with excess weight is not so much a problem of wing-loading, since the wings are of adequate size, but of power loading. Hook more than fifty ounces to a .35 engine and you have a problem, more apparent in some designs than in others.

If at all possible, build the wing on a flat surface. The spar has "legs" which pin to the bench and are the proper length to maintain a constant center line 1-3/16" above the work surface. A trailing edge jig may be made by notching out a piece of 1/8"x2", using the spar plan to determine notch positions. Pin this jig to the bench just in front of the trailing edge location and position each rib in the jig so that the rib center lines are a constant 1-3/16" above the bench. When everything is properly aligned, glue all joints.

My control horns were bushed with nylon inserts which were press-fitted into place and then epoxied with Carter's metal filled epoxy. No wear is apparent on any of my nylon bushed systems, some of which have 200 flights to their credit.

The original was fitted with a removable plug on the outboard wing tip so that weight could be adjusted easily during the de-bugging process. Another removable section on the inboard tip provided for adjustment of lead-out wire positions. Both factors were found to have a significant effect on the flight characteristics. The stabilizer and elevator on the original was covered with soft 1/32" balsa in lieu of silk. I frankly doubt that any significant weight difference exists after considering the dope necessary to fill the silk, and the wood finishes smoother since the ribs don't show.

The air scoop is glued to the bottom block which is in turn spot glued to the fuselage. The entire assembly is shaped, then the spot glue joints are cut free so that the assembly can be hollowed as shown on the plans. After hollowing, the assembly is permanently attached to the fuselage using fiberglass resin. I use resin for all outside joints which will be exposed to dope; the dope will not soak into the seams and leave a line after several months of curing.

Perfect alignment of major components is a must. Be sure the top line of the fuselage sides is straight *after* attaching the wing; this line is a reference line for stabilizer incidence and for the thrust line. Frequently fuselage sides are straight until the cut-out is made for the wing location, then changes in pressure in the grain of the wood cause warping.

If you are interested in a high degree of detail on your model, obtain a set of plans from the Jetco P-51 kit. There are several pages which are loaded with scale details and certain information on the construction of such details. Many of these details represent decals, ink markings, or other light weight additions which in general will have little effect on the flight characteristics of your Mustang.

As a parting shot to some of my British friends who have built Phoenicians, try a Mustang and see if it can out perform that bloody Jap "Tony" which is winning the trophies over there!

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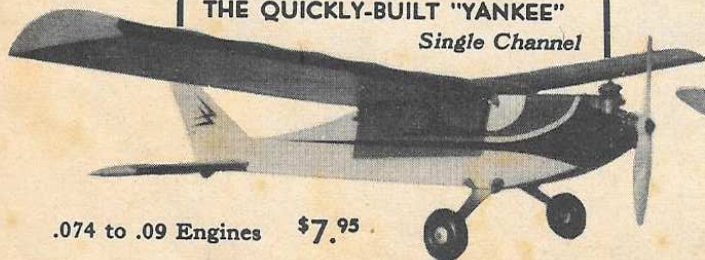
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