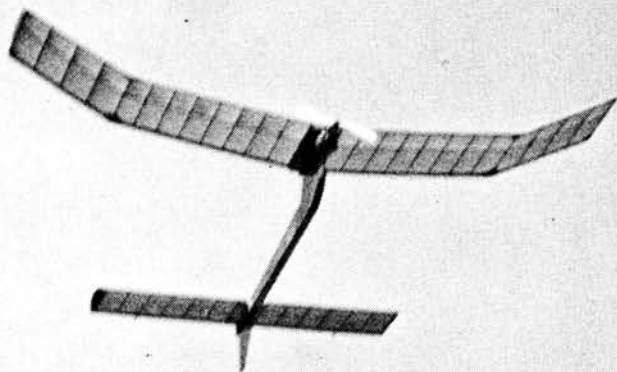
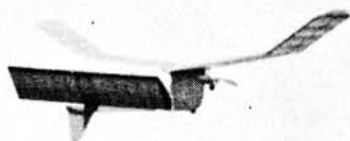


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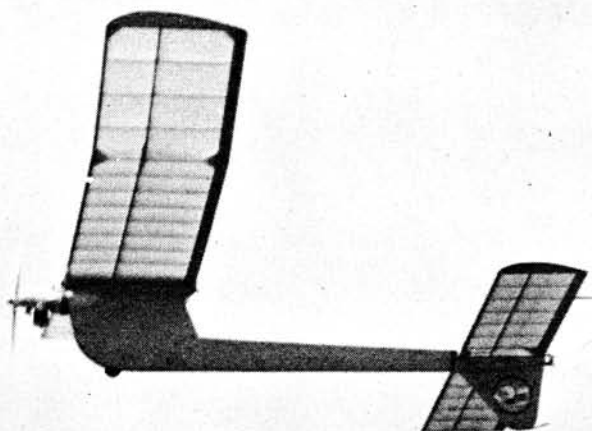
STARDUSTER - DESIGNED BY SAL TAIBI - FROM AMERICAN MODELER SEPTEMBER 1958  
 ARCHIVE #001083 - FULL SIZE PLANS - 1640 N Kellogg Street - Galesburg, IL 61401  
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# Sal Taibi's



# STARDUSTER



■ "Starduster" was the first design in a series of high thrust line models, all of which have been spectacular in climb and exceptionally high in endurance. She easily makes maximum flights in cool morning air without the aid of thermals. The "Starduster" has turned in flights of 5 minutes and better many times, prior to start of contests. While the class A, B, and C models are not exact scale of the 1/2A "Starduster" the general configuration is the same, performance and flight characteristics similar.

Power pattern is almost straight away with a very slight turn to the left, the recovery might be described as a simultaneous action in which the model yaws to the left, flattens out and is gliding in its normal glide pattern. The long dip after power shutoff has been completely eliminated with this design.

The 1/2A "Starduster" being the first of the series has the best contest record. In the first contest entered this year on February 16, at Los Angeles, Calif., the design was second. The third contest on March 23, at Taft, Calif., the "Starduster" made a clean sweep winning First, Second and Third places. Additional wins have been April 27, Taft, Calif., 1st and 2nd; May 18, Long Beach, Calif., 1st.

The "Starduster" has proven itself to be a high performance model that is very easy to adjust; most of the models flown in the contests mentioned were trimmed out in three or four flights and ready for contest flying. If you are in need of a high performance 1/2A model, clean off the work bench and start building a "Starduster."

**Fuselage.** Construction is such that it can be almost entirely assembled on the workboard with the exception of the wing rest, stabilizer support and motor mount. First cement wood together for the Pylon and the Rudder, when dry cut out as shown on plans. Cut out two fuselage sides, the 3/32 sheet balsa fill-in for the Pylon and the 1/8 sheet balsa fill-in for the Rudder.

Pin one side of the fuselage to the board and then cement the 3/32 sheet fill-in and the 3/32 squares in place at the Pylon and 1/8 sq. and 1/8 sheet balsa fill-in at the Rudder; when set cement the Pylon and Rudder in place. To assure a true assembly place a piece of 5/32 sq. balsa about 8 inches long under the Pylon about 1/4 of an inch from the top of the Pylon, pin in place, this will prevent Pylon warpage while drying. Repeat the same procedure for the Rudder, use 3/16 square balsa strip about 4 inches long. Cement the 1/8 x 3/8 balsa strips in place, then the 3/32 sheet fill-in and 3/32 squares on the top side of the Pylon and the 1/8 sheet fill-in and 1/8 square on the top side of the Rudder. Allow to dry awhile and then cement the other side of the fuselage in place. Allow to set overnight if possible.

After removing from the board sand all over. Cut out the motor mount from 1/8 Birch plywood, drill engine mounting holes and fasten the nuts or nut plate to the rear of the plywood, cement motor mount in place and check frequently to be certain it is drying correctly, with no side-thrusts. Cut out and rough to size

the 1/2 sheet balsa motor mount blocks and cement in place, when dry trim flush to motor mount and sand. Cement the wing rest, stabilizer support, all hooks and VTO peg in place. Cut section out of any rubber wheel on hand and cement in place as shown on plans—this is for shock absorption only on dethermalizing—cement well. Cover the fuselage with Jap tissue and give the fuselage about 3 or 4 coats of dope and 2 coats of fuel-proofer.

**Stabilizer.** Built in the conventional manner. Note the two heavy center ribs for the hold-down hooks; if preferred these ribs can be left full length instead of being cutoff as on the plans. Gusset the ribs as shown to prevent trailing edge drooping. When cementing the tips in place tilt up to approximately 60 degrees, allow a little extra stock on top of tip so it can be sanded to conform with the airfoil shape. Cover the stabilizer with Jap tissue, give one coat of dope and then cement the stabilizer hold-down hooks and VTO pegs in place. Give the stabilizer 2 or 3 more coats of dope and then 2 coats of fuelproofer.

**Wing.** Build in the conventional manner; note that the 1/8 sheet wing tips have balsa wedges to prevent sagging after covering. Use the same procedure as stabilizer when finishing the wing tips and also for dopping and fuelproofing.

**Famous free flight designer Sal Taibi and his fast-climbing Half-A. Full size plans for Starduster are on Group Plan #958 from Hobby Helpers, 770 Hunts Point Avenue, New York 59, N. Y. (50c).**

Add the wing locating dowels after the first coat of dope.

**Flying.** For successful, consistent flying the "Starduster" should be set up as shown on the plans; do not deviate. Balance as shown and use 1/16 negative incidence under the trailing edge of the stabilizer, add about 1/32" shim under the left side of the stabilizer for turn in the glide. When shimming never use balsawood as it has a tendency to compress with use; it is preferable to use thin plywood shims or some other solid material. There is no sidethrust or downthrust used. With the underslung rudder the "Starduster" can be leaned forward about 15 degrees for takeoff. Assemble the model completely and place it in VTO position, trim off the rudder VTO peg until the model falls forward then take about 1/8" off the stabilizer VTO pegs and the model should stand in VTO, position unaided.

Place the prop on the engine backwards, rev up the engine to top speed, launch model and watch flight pattern. If there are no warps the "Starduster" will fly straight away or possibly very



slightly to the left. If this is the flight condition place prop on the correct way and fly with approximately 90 per cent power, if flight pattern looks safe fly again with full power. If during the full power tests the model has a tendency to climb at a low angle of attack add about 1/32" negative incidence under trailing edge of stabilizer. If there are no bad warps built into the "Starduster" it should trim out easily as described here. Good Luck.

