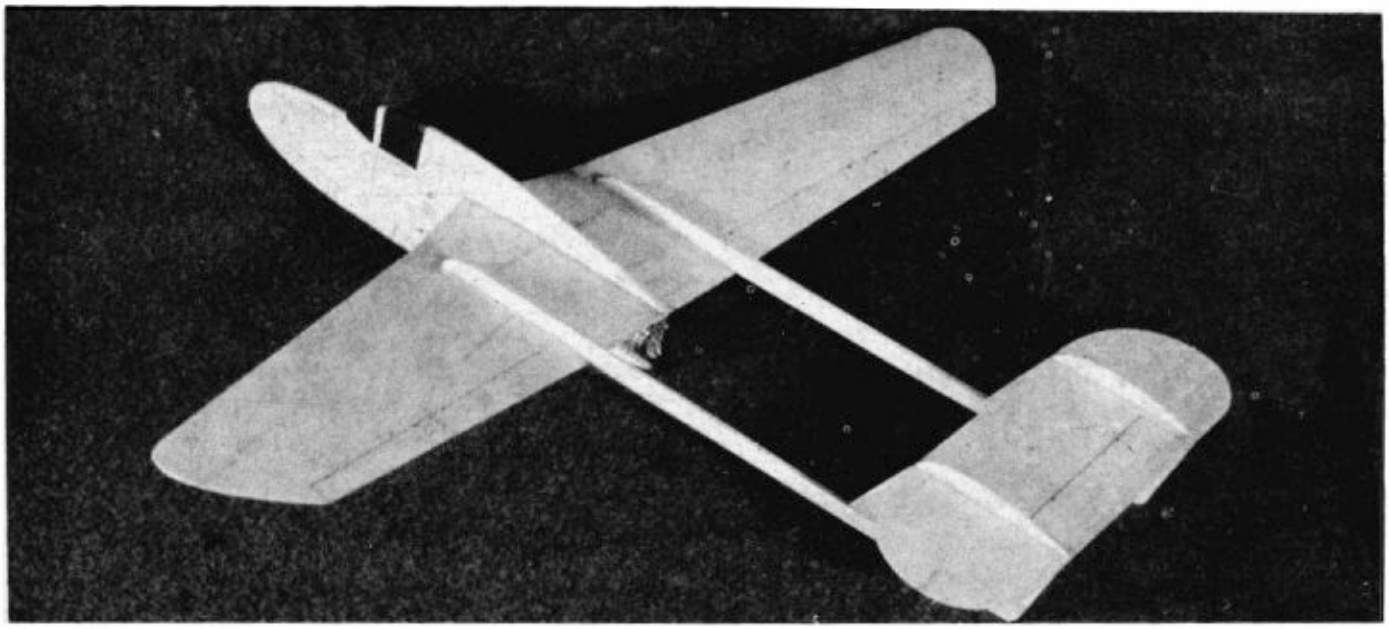


# JIFFY JET

## TRY THE NEW JIFFY-JET—A TESTED, STABLE, SEMI-SCALE JOB THAT IS SIMPLE TO CONSTRUCT AND A SNAP TO FLY.

by Dick Struhl

● As with full-size aircraft, jet propulsion is rapidly gaining a foothold as a source of *model* airplane power, bringing many new problems to the model builder. If you can recall the era of the late 30's, when gasoline engines were encroaching upon the rubber motor, you will remember we had the same situation. Different modes of power require different basic set-ups in the model, and it takes time and experience to learn, investigate and solve the various problems that arise.

The obvious points that you think of in connection with jet power are the lack of torque, the great difference between power-on and power-off adjustments, the great heat about the engine, and the fuel dissipation with its reduction of weight at the engine location. And these are but a few of the problems that face the embryo jet designer and model builder.

To get you started on the right track with jet models, we present this tried and proven semi-scale model using the Jetex 100 as the power plant. The configuration of the model was taken from the DeHavilland 110 all-weather fighter. No attempt was made beyond that to follow scale—we altered the model considerably to fit modelers' needs.

Our model is, in effect, more of a powered glider than a flying scaler. But it is good looking and strong, and simple enough to give you quite an education in jet power.

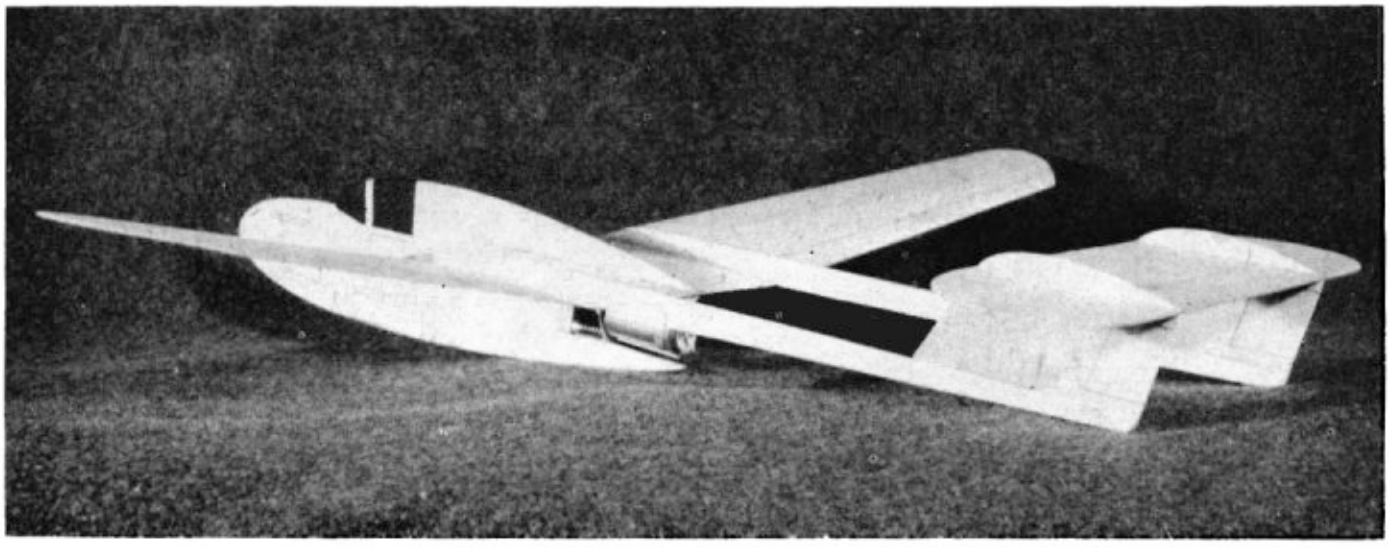
The profile fuselage minimizes construction and leaves the engine readily accessible. The engine is located at the center of gravity and approximately at the center of resistance to minimize power-on and power-off differentials. The stabilizer is mounted high on the rudders, away from the jet blast. Construction is sheet balsa throughout.

The plans are shown one-half size. Full-size plans may be obtained by either scaling up the drawings or by having a photostat made to 14" by 20" borders.

**FUSELAGE:** Cut the fuselage to shape

(*Please turn to Page* 32)

The twin rudders and swept-back wings give the model a realistic appearance.



# JIFFY JET

(*Continued from Page 25*)

from soft 3/16" sheet balsa. Use soft balsa for all parts except the tail booms, to keep weight down to a minimum. But, note that there is a hard piece of 3/16" square balsa running vertically at the jet notch. This is merely to strengthen the fuselage. Sandpaper the fuselage edges round.

**WING:** The wing is made from ⅛" balsa. If you cannot obtain 5" wide stock, butt-join a 3" and a 2" sheet to obtain the proper width. As long as the cement joint is smooth and strong, there is no objection to this.

Cut the wing to the desired outline. Note that there is one center section and two outer wing panels. With a sanding block and No. ½ sandpaper, you can put in the proper airfoil section with but a very few strokes. Finish off with finer grades of sandpaper.

The 2" dihedral, shown in the front view, is now installed in the wing. Bevel the dihedral joints for a nice fit. Apply at least three coats of cement at the dihedral joints.

Cut the two tail booms from hard ⅛" by ½" trailing edge stock and taper as shown in the side view. Sandpaper the edges round and then cement to the wing at the dihedral joints.

**RUDDERS & STAB:** Cut the rudders and stabilizer from soft 1/16" sheet balsa. Cement the rudders in place, allow to set, and then add the stabilizer and the rudder tips. Check the alignment.

**ENGINE INSTALLATION:** The engine mount used is the spring steel clip supplied with the Jetex kit. Before screwing the clip to the bottom of the wing at the trailing edge position, install a small pad of asbestos sheet onto the wing surface. The engine gets very hot and can set the model on fire if precautions are not taken.

**FINISHING:** The wing is now slipped into the fuselage slot provided for it and cemented very securely. Sand the model completely to obtain a smooth surface overall and then apply one coat of clear dope or glider polish. This will seal the surface and prevent moisture absorption.

**ADJUSTING & FLYING:** The model is flight-tested by gently hand-launching it into the wind *without* the engine in position. This is done to keep the model as light as possible and minimize first-flight crack-ups. Don't bother if the model stalls or dives at this time, but look for any undue spinning or turning tendencies. If present, some of your flying surfaces are warped and must be corrected before making power flights.

If the glide path appears stable, add the engine and hand-launch again. Be sure that you have a fuel charge in the engine. Launching will have to be a bit harder this time as the model is heavier and thus needs more flying speed to sustain flight. Now adjust the glide path for stalls or diving tendencies.

The next step is to try some power flights. The charge pellet may be cut in half to cut down on the engine run. All adjustments from here on must be made with the thrust line. You can add up or down thrust or side thrust by changing the angle of the mounting clip. The model must be made to circle. But, remember that with a turn adjustment in the glide, the thrust line must be altered slightly in the *opposite* direction to avoid spinning in under power. Trial and error is the only way to find the exact adjustment.

### BILL OF MATERIALS

(All soft balsa unless otherwise specified)

1—1/16" x 3" x 10½" . . . . . Fuselage
1—⅛" x 5" x 26½" . . . . . Wing (may be spliced)
1—1/16" x 3" x 18" . . . . . Stab and rudders
1—⅛" x ½" x 25" . . . . . Tail booms

Cement; clear dope or glider polish; Jetex 100 engine and mounting clip; asbestos paper; India ink.