

A "Dreamer" in the Sky



by Don Foster



The agility of a cavorting biplane in the blue is good exercise for your servos, mind and trembling fingers. It's a spirited .40 R/C Sport/Stunt machine.

A .40 is enough! Don's "Dreamer" departs the planet if just thinks of "up" trim. Biplanes are a blast, from an age of dogfight flying and barnstorming.

Actually the design of this sport biplane was completed many months before my eyeball "Tiger Moth" that was featured in the November, 1971 issue of *Flying Models*.

I had been flying the usual run of the mill pattern planes and enjoying it immensely, but all the time feeling that something was missing. After building and flying Nick Zirol's P-47 "Thunderbolt" I knew what it was: these pattern type planes all flew great and were a credit to their designers, but they lacked the eye appeal of a full scale airplane.

Being partial to biplanes and after watching Lou Andrews' gorgeous "Aiomaster" perform, I started thinking along the lines of a small high performance biplane.

The design of my "Dreamer" is somewhat a combination of a lot of different planes, a high turtle deck, a swept back upper wing, dihedral only in the lower wing and wheelpants. I wanted it relatively

small, yet still able to land fairly slowly. It came out just about right. With a span of 39" and a Super Tigre .40 it bores along in great shape; does most of the tricks easily and has a nice sink rate for landing.

The ship goes together quite fast and does not gobble up a lot of wood in building, as biplanes generally do. This is mainly because both wings measure exactly 36" from tip rib to tip rib and there is absolutely no waste.

The Fuselage

I won't go into great detail about the construction, as it is pretty straight forward with a couple of minor exceptions. The fuselage is constructed using full length 3/32" sheet sides, doublers and triplers as indicated. Blocks are glued between the motor mounts and sides in the engine compartment. The plywood nose ring is then put on, top and bottom and then the whole thing is carved to shape.

Make sure you cut the notch in the doubler to accept the cabane strut plywood mount. Epoxy this in well, using the 1/2" triangle stock after the cabane struts are attached.

Bending the cabane struts themselves is nothing, as there are only four bends to each strut. There is a slight difference in the length of the front and rear strut, so check this carefully. Bind each joint with soft wire and solder securely. Note that the diagonal wire is 1/16" dia. The rest of the body is typical 3/32" sheet formed over the front bulkheads, and stringer construction aft.

At this stage the fuselage may look like a new fangled lobster trap but it starts taking shape as soon as the tail surfaces are added. The dural gear is attached to the 1/4" ply shown on the plans with #12 sheet metal screws and has held very well. The gear itself should have about 16" between wheels for best tracking on the take-off. I have quite a batch of these blanks

Photos by the Author





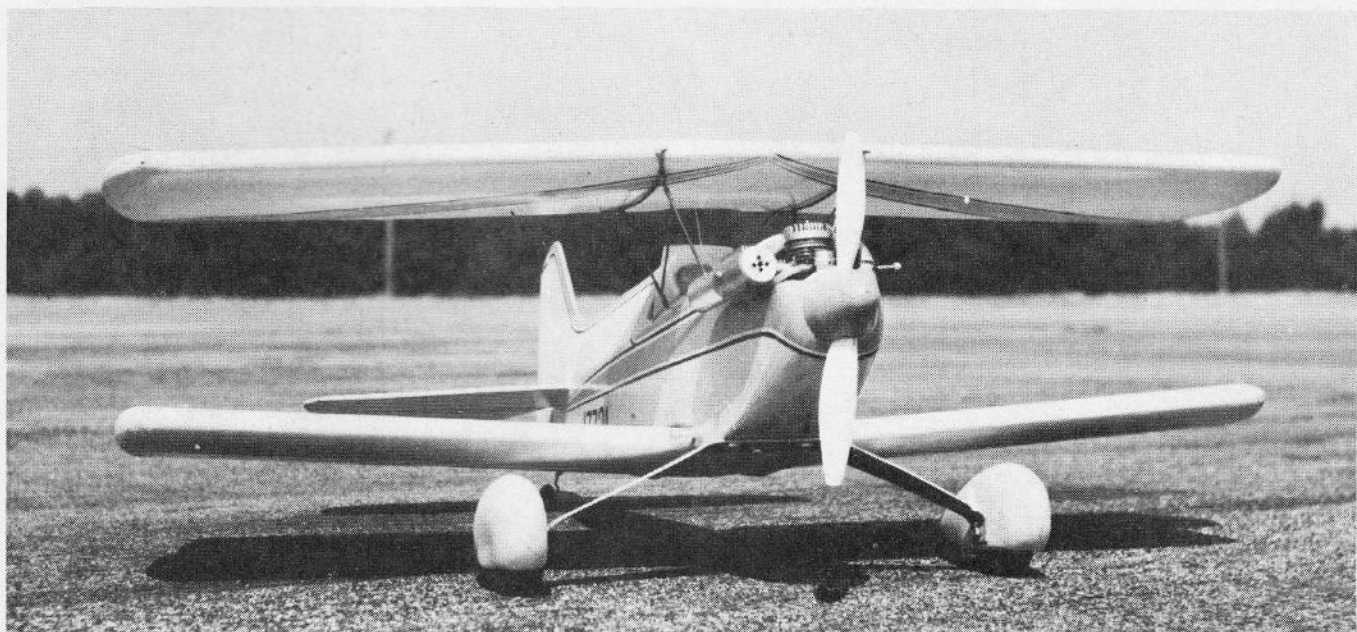
A "still life" kind of scene between flights, a wild free spirit in the sky. Rugged, yet agile.

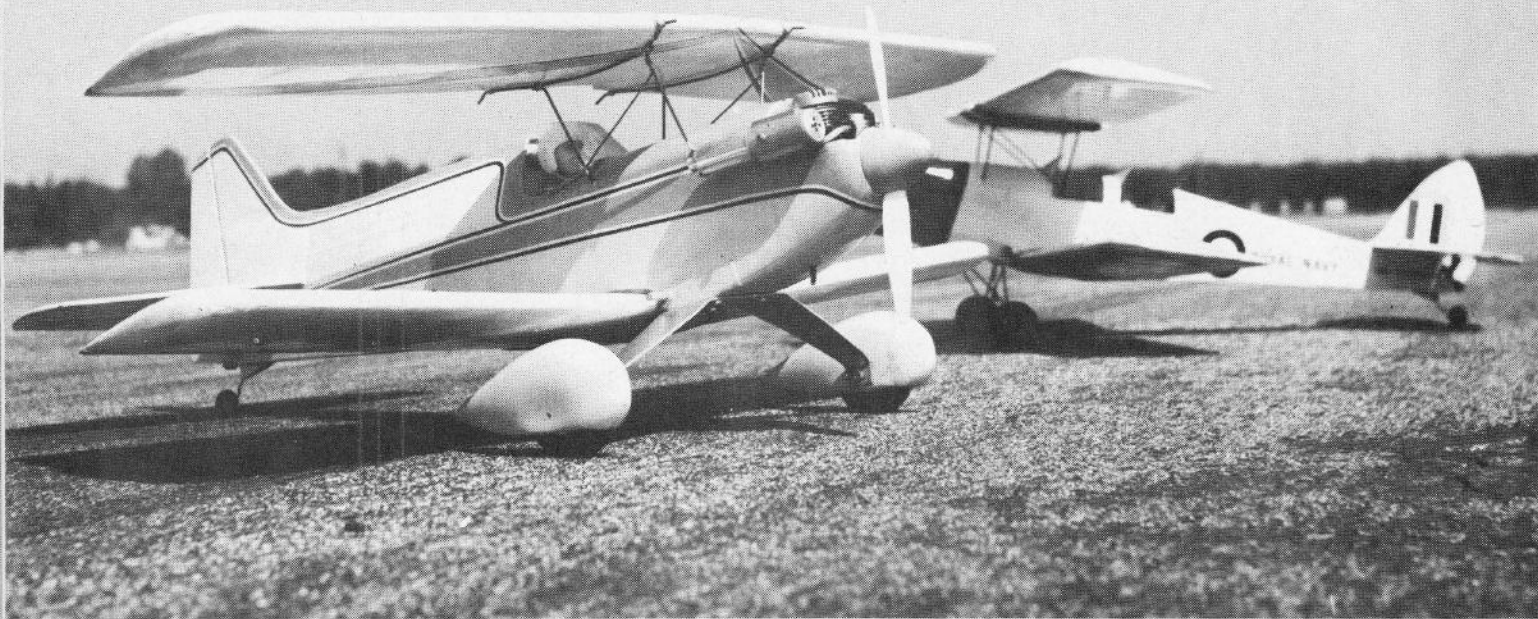
Below: Don's daughter Debbie banks the ship for peek at the planview. Compact moments, areas. Power to pull it through. You'll find this Sportster a very different animal. Roomy for radio.

available for \$1.00 each and if you need one, write to me care of this magazine. Also note that the gear is turned around, that is the front edge slants back to get the wheels as close to the C.G. as possible.

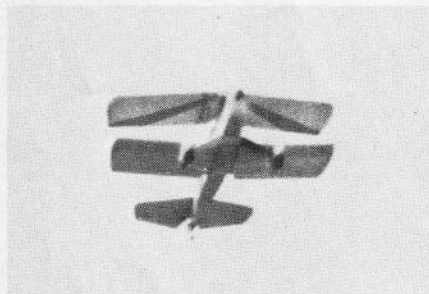
Wing Assembly

The wings are pretty standard construction—just keep them true. The upper wing is really quite simple, even though it is swept back. It has no dihedral, so to join the two halves all you do is make a triangular box as shown on the top wing plan, using two triangles of hard 1/8" sheet. Glue it to the spars and back the straight edge with 3/32" plywood cut to length. You are going to have to carefully cut the second rib in from the center-section, just behind the front spar, to accept this plywood joiner. This however is not difficult. Glue in the block that forms the trailing edge of the center-section and sand it to the rib airfoil.





Designs kind of express how a guy feels about things. It's plain to see Don dreams of Pitts, and Stitts. His Jenny (FM Nov. '71) behind it.



A classic biplane look. Beats all when it comes to getting in and out of tree-lined field acreage.



Note the space between wings. If a biplane's wings are tight together it can buffet, do horribles.

Below: Side area and fin in the right proportions. Ailerons on the lower wing. Span makes the most of standard 36" stock, wastes nothing. Kind of lends itself to a brilliant paint scheme.



After the wings are joined, web between all spars with 1/16" sheet, grain vertical; then add the wing sheeting, caps and tip blades.

The Finishing Details

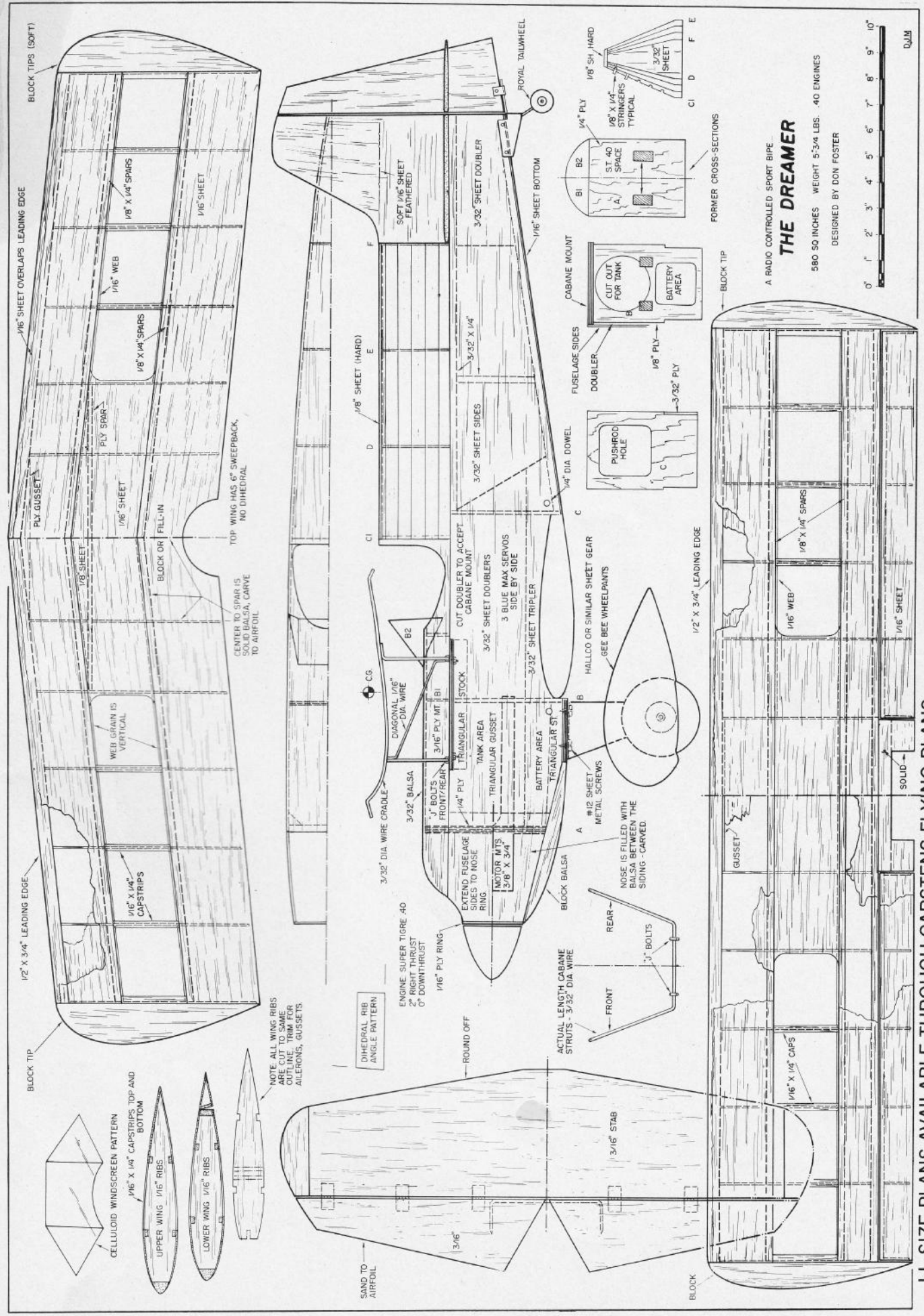
Finish your "Dreamer" your favorite way—silk and dope or MonoKote. The basic construction is strong enough so the new plastic covering materials should work well.

Any of the new radio systems will fit in with no problem. Mine is fitted with a Blue Max outfit and it is just right in all respects. The flying weight of my model after a couple of years of weekend flying dirt is 5-3/4 pounds and the same old Super Tigre .40 hauls it around in great shape.

Flying

Keep the C.G. pretty close to where shown and don't let the elevator movement exceed about 3/4" up or down and your test flight should present no problems.

The takeoffs are great and with just a little right rudder she'll track straight away and climb out as pretty as any biplane you have ever seen. In the air she will slow roll, snap, spin and loop with the best of them and when you cut the power the design has a nice positive sink rate, yet will flair and hold off killing her speed to a three point touchdown perfectly. Fly it often and fly safely.



THE DREAMER

A RADIO CONTROLLED SPORT BIPLANE.

380 50 INCHES WEIGHT 5-3/4 LBS. 40 ENGINES

DESIGNED BY DON FOSTER



ALL SIZE PLANS AVAILABLE THROUGH CARSTENS FLYING PLANS