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radio control MODELER

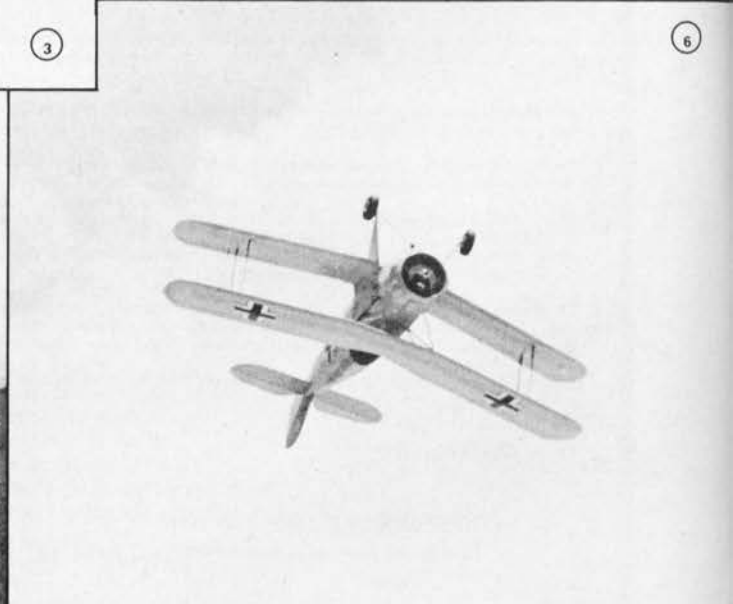
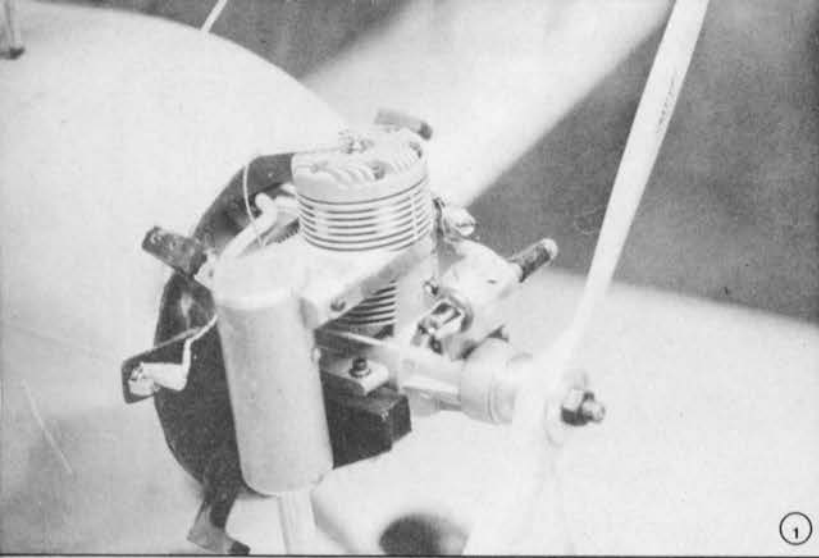
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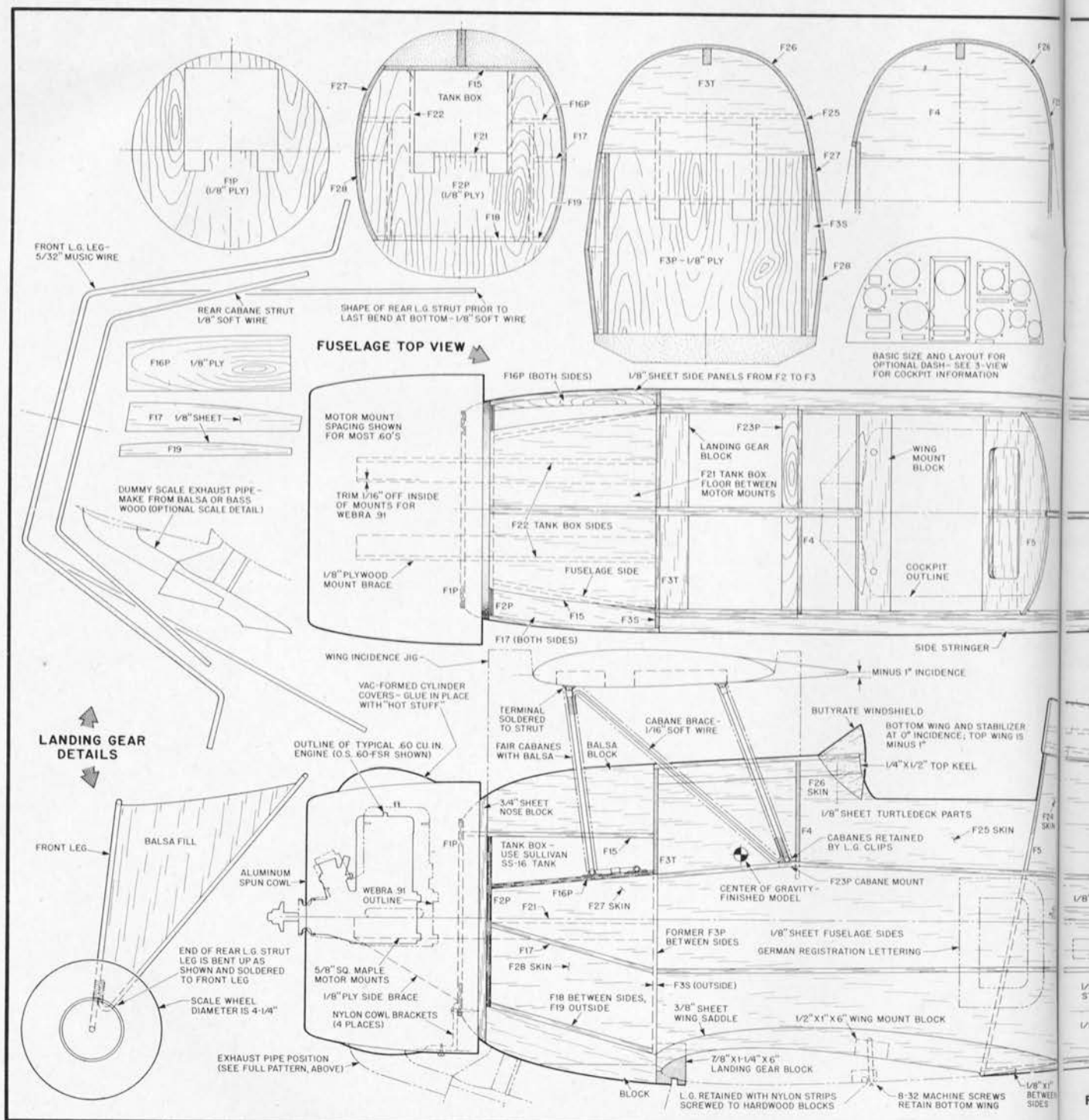
BÜCKER JUNGMEISTER

Dave Platt's outstanding scale designs are known throughout the entire modeling world. RCM is pleased to present his latest design which is in 1/4 scale.





(1) Tidy front end - Webra .91 and Semco muffler fit inside cowling. Slim-Line and Tatone also working on all-inside mufflers. Note accessible fuel tanks; TV jack for glo battery. (2) Starting up for test flite - cowl removed. Playing field is unmowed, but big Jungmeister excellent rough field plane. (3) Easy lift off at half-throttle. (4) Fully trimmed and cowl in place, Bucker climbs away. Needs a pilot - who'll be first with quarter-scale jockey? (5) Ready for static judging. The scale prop is shown on plans - 21" diameter! (6) Inverted flypast a famous Jungmeister show stopper - model does it equally well.



If somebody were to make the bald statement that the *Bucker Bu 133 Jungmeister* was the finest aerobatic biplane ever designed, he might get an argument. If so, this would come from some who might say the *Pitts* take it. I'm not looking to bicker with anybody, so I'll only say this — the *Jungmeister* is the finest aerobatic biplane ever designed for an R/C model.

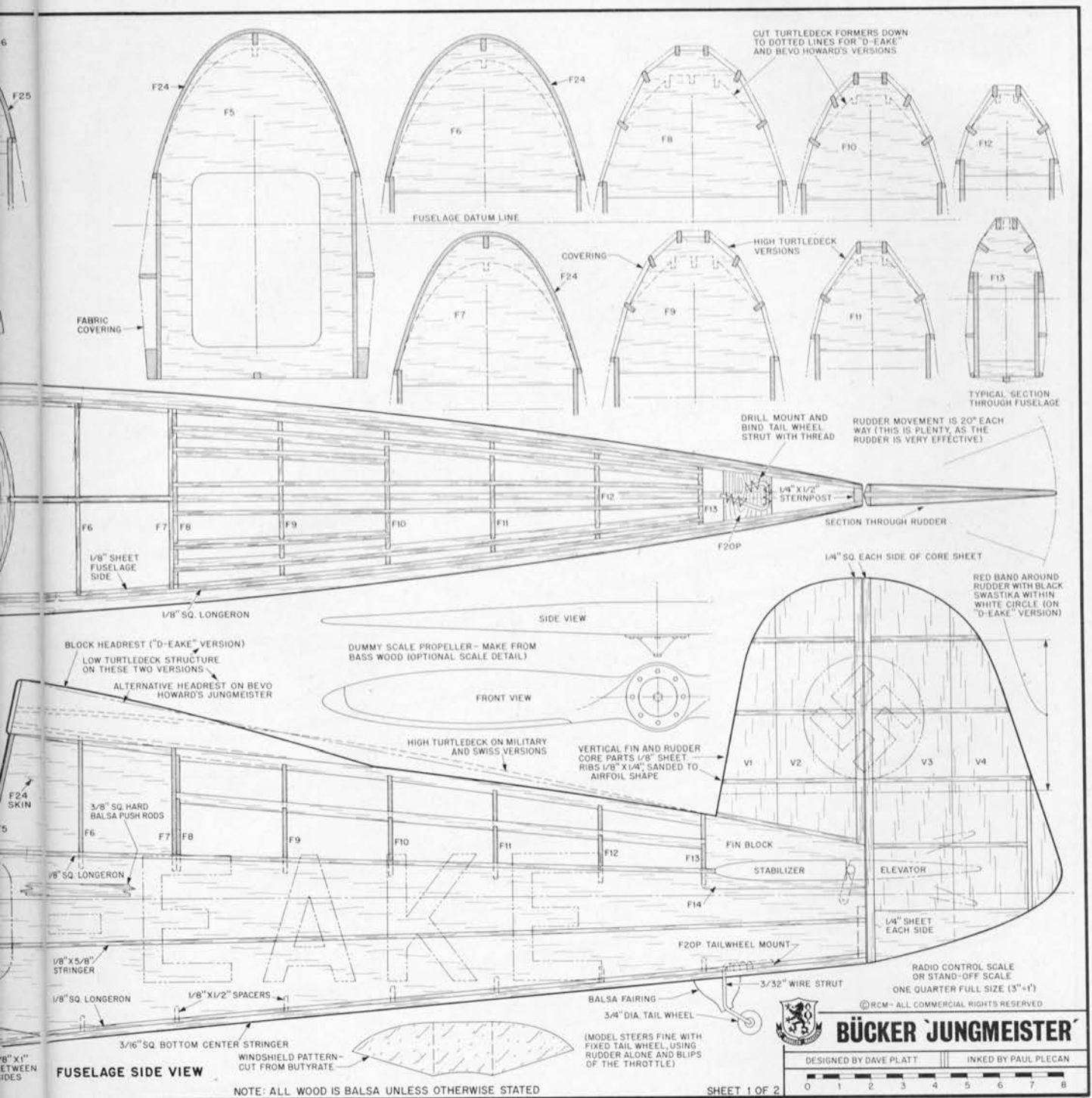
One of the difficulties with small biplanes, as R/C subjects, is that they often have to have such big bodies, giving us a power problem. Then, too,

sometimes they have such short moments that flying one is kind of like trying to balance one ball-bearing on top of another.

For such a small airplane, only 21' + wingspan, the *Jungmeister* is unusually well proportioned: a deep, yet narrow, body, long nose and tail moments, gracefully swept wings. For a model, it would be difficult to fault. Even the radial cowl lends itself to totally enclosing any engine, along with a muffler.

I decided to jump right on the topical trend and make my *Jungmeister* as a 1/4 scale model. Saying "quarter-scale"

normally brings visions of some great monster. Not so here. With a wingspan of 65", the *Bucker* fits into a car handy — a Kenilworth isn't needed. Then too, it will fly nicely with a Schnuerle .60 engine (regular direct drive) turning a 13/5 prop, although I have a Webra .91 in mine. The Webra, running on a 16/4 1/2 Rev-Up, flies the model through a beautifully slow and realistic aerobatic routine, at no time needing more than 1/2 throttle. Forget speed! You won't need it; indeed, at half throttle on the 16" prop, the *Jungmeister* will not stop in a vertical climb. It just hangs on that big



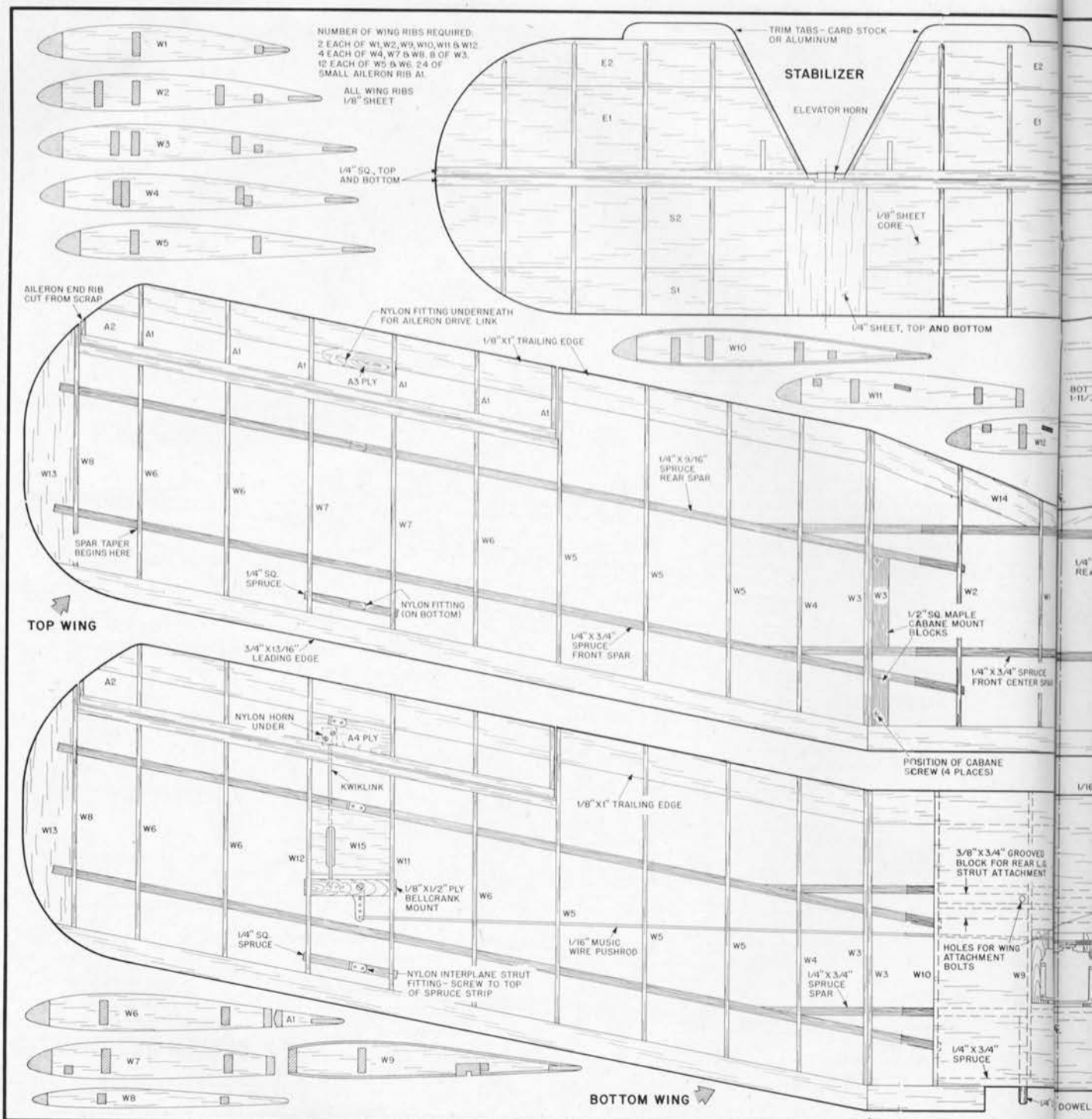
fan and keeps going up, just as slow and pretty as can be. After his usual W.W. II fighters, your author found this a whole new way to fly!

As built, my prototype (shown in the pictures) weighed about 10 lbs. With almost 1200 square inches of wings, this seemed about right until I flew the model. An unexpected problem arose in that, rolling at even a very low speed (such as in a landing roll-out), the model has so much lift that it wanted to keep floating into the air again. After adding some more detail, and a little tail weight, I figured the extra 1 pound added would

help it to "sit down" on the runway, it did help, somewhat. Even then, the ship must be landed carefully and I now believe that 13 or 14 lbs. all-up might even be better. Now I know what Ron (I forget his last name) meant, when he told me at Toledo, of adding **six pounds** of lead to a 1/4 scale *Champion* to get it to fly right!

Although I term the model "Stand-Off Scale" the outlines are in fact scale, and anyone who cared to go the whole nine yards with detailed engine, full cockpit, etc., would have an AMA Precision Scale entry. The only deliberate change

involved the wing airfoil. For some unaccountable reason, the full size *Jungmeister* has a flat bottomed airfoil — odd, considering its fame as the king of the low, **low** inverted pass. Playing a hunch, I went to a semi-symmetrical airfoil, but stayed with the equally weird force arrangement used on the plane: bottom wing and tail set at zero, the top wing at negative 1°. Lo and behold — it worked. The model flew without any adjustment to the pitch trim. Given the center spar arrangement in the wings, it would be easy, for anyone who is super fussy, to sand the ribs out to a flat



bottom. If this is done, however, I'd suggest the stab be rigged at least 1° positive.

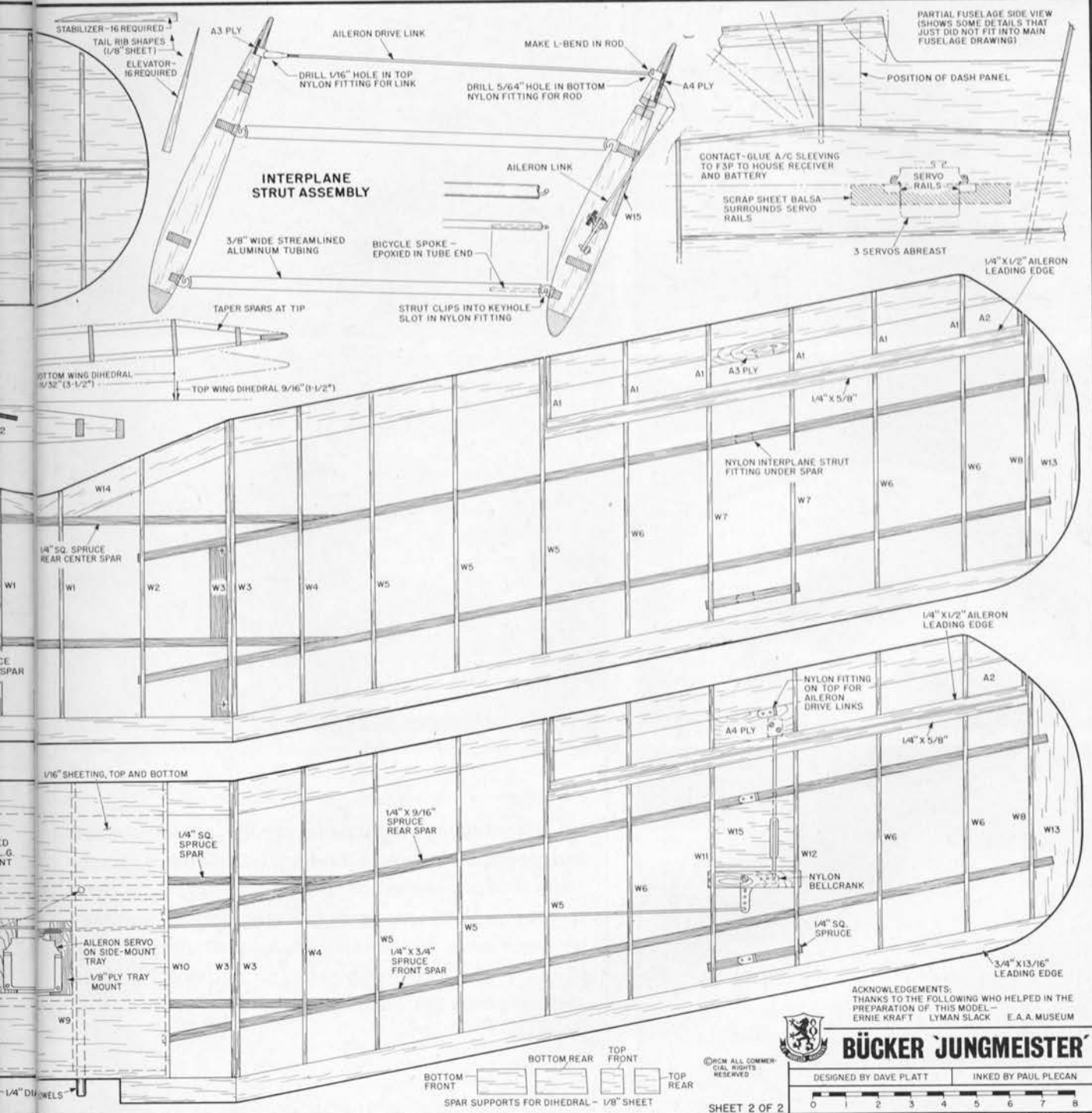
Mention of spars gets us to the structure. This was an easy design job since the full size *Jungmeister* is, itself, similar to a model in many respects. The wings will be a breeze to anyone who ever built a *Goldberg Falcon*, which I guess most of us have done. Center panels are made first, then the spruce spars of the wing outer panels are joined on at the correct dihedral. The ribs are slipped in correct order onto the spars and the L.E. and T.E. complete the basic

wings. The ailerons (four of them) are made separately. The tail feathers are merely sheets cut to outline, with strips added each side for the correct effect when sanded to airfoil and Silkspan covered. Add the "stitches" if you want. I did; it takes very little time with white glue and a hypodermic needle and does add greatly to the appearance of the finished model.

The fuselage is likewise a very uncomplicated affair. Mine, with the parts cut out, went together in only two evenings. The front parallel section is erected first. The sides are then drawn

together at the rear, and turtledeck bulkheads and stringers added. Note that a number of variations of the *Jungmeister* are possible. The one I made has the high turtleback, but if you choose to duplicate aerobatic ace Bevo Howard's ship, you'll need to use the cut-down rear bulkheads. These are all shown on the plans.

The fuselage front end assembly is completed next, including the tank box which is designed to fit the Sullivan 16 ounce square tank. (Incidentally, contrary to reputation and, therefore, my text to page 38



BUCKER Bu 133 JUNGMEISTER

Designed By : Dave Platt

TYPE AIRCRAFT

Stand-Off Scale
or Scale Biplane

WINGSPAN

64 7/8 Inches

WING CHORD

9 3/4 Inches

TOTAL WING AREA

1170 Square Inches

WING LOCATION

Biplane

AIRFOIL

Semi-Symmetrical

WING PLANFORM

Sweet, Constant Chord

DIHEDRAL, EACH TIP

3 1/2° Bottom —
1 1/2° Top

O.A. FUSELAGE LENGTH

58 Inches

RADIO COMPARTMENT AREA

(L) 10" X (W) 6" X (H) 7"

STABILIZER SPAN

24 Inches

STABILIZER CHORD (incl. elev.)

8 1/2 Inches

STABILIZER AREA

178 Square Inches

STAB AIRFOIL SECTION

Symmetrical

STABILIZER LOCATION

Shoulder

VERTICAL FIN HEIGHT

9 Inches

VERTICAL FIN WIDTH (incl. rudder)

11 Inches

REC. ENGINE SIZE

Schneurle .60— .91 cu. in.

FUEL TANK SIZE

16 Oz.

LANDING GEAR

Conventional

REC. NO. OF CHANNELS

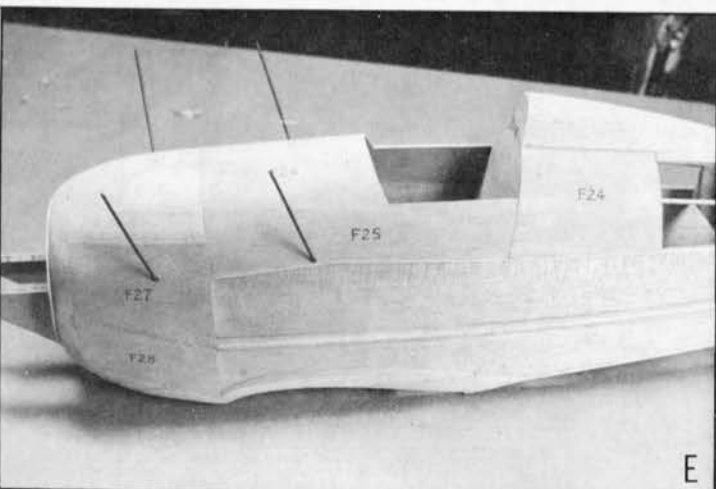
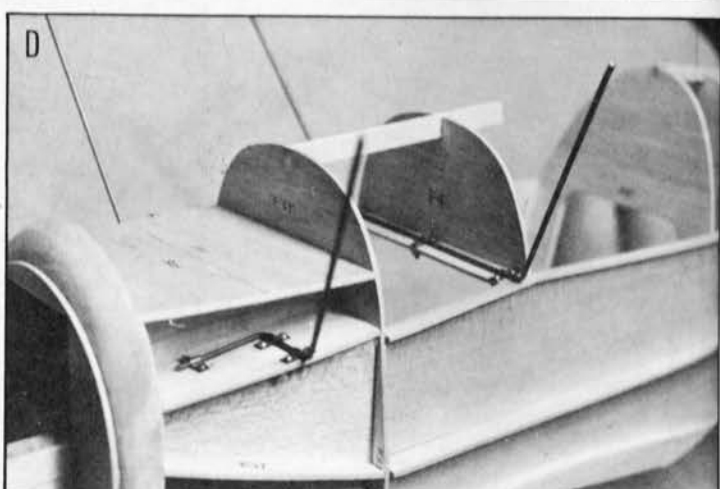
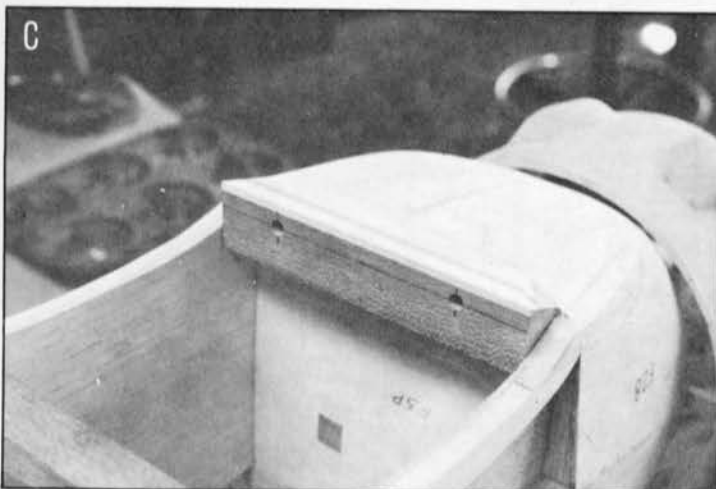
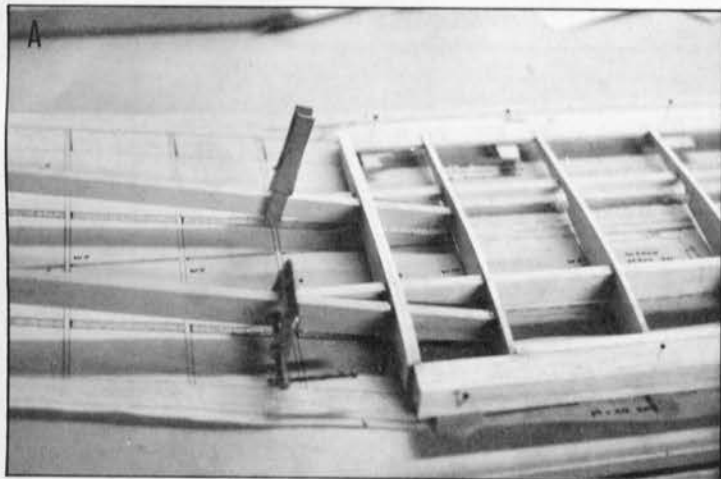
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CONTROL FUNCTIONS

Rud., Elev., Ail. & Throt.

BASIC MATERIALS USED IN CONSTRUCTION

Fuselage	Balsa & Ply
Wing	Balsa & Spruce
Empennage	Balsa
Weight Ready-To-Fly	176 Ounces
Wing Loading	21.07 lbs/sq. ft.



(A) After building center panel of wing, spars are glued and pegged at correct dihedral. (B) Supports under spars at tip make dihedral exact. (C) Block in body serves double functions; as L.G. support and dowel key for lower wing. (D) Simple cabane strut arrangement. Uses 1/8" soft wire; easily bent and adjusted. (E) Block and turtledeck skins in place. Headrest shown on some versions.

expectations, the Webra .91 is not at all a gas hog.) The three side stringers, glued on the outside of the sheet sides, complete the pleasant shaping of the fuselage. This, like the wings, is covered with Coverite.

The landing gear is removable from the model. This was necessary for removal of the lower wing and may be handy for those with smallish cars; the disassembled model crowds the back seat of my Mustang but it all works okay. The 4" wheels make for easy ground handling on the roughest field.

And now, scale fans, we get to the interesting part — choosing a color

scheme. Some six hundred *Jungmeisters* were built, and it's quite conceivable that very few of these were similarly painted. I chose one of the several available Luftwaffe schemes, mainly to be different. Little mention is ever made in aero books of the trainer types, most writers seeming to prefer the combat types of W.W.2. Indeed, a military biplane is a rarity at a contest. If you like to go wild with the bright colors though, the little *Bucker* had its share of these too. Bevo Howard's was red & white (checkerboards under and sunburst over). Swiss versions sometimes were cream or yellow with

red trim. Early (pre-Luftwaffe) versions were silver with gray front ends and German civilian registration numbers. These had the attractive red fin band with the white circle enclosing a black swastika. One thing is certain: it's no problem to find an appealing color scheme. The problem gets to be which to choose! Happy hunting!

(Dave's company, *Dave Platt Models, Inc.*, 6940 N.W. 15th St., Plantation, Florida 33313, has announced that a kit for the "*Jungmeister*" is in the works --- see ad in next month's RCM --- Ed.)

□