BY BRYCE PETERSEN

focke-wulf TA152H

With the introduction of the Taurus by Ed Kazmirshi, a new age was born for radio control - - - a model that gave the pilot full command. The skidding turn and rudder roll was finished in serious competition. Almost overnight, the complete aerobatic pattern became possible depending on the skill of the pilot. One might say that the age of the R/C fighter was born. Inherent stability in designs became a "no-no" (except in trainers) and words like symmetrical, track, and grooving, became commonplace. Radio control aviation reached maturity.

Models of famous fighters with silver wings flashing through the sky became commonplace instead of a pipe dream of yesteryear. Now, anything is possible, depending on the skill and daring of the designer. It is with this thought in mind that I offer the meanest one of them all – the Focke-Wulf Longnose. I say "mean looking" because it scared the hell out of Spitfire and B-17 pilots. It was the last of the famous Focke-Wulf series and, perhaps, the finest propeller-driven fighter ever produced, flying higher and faster than its opponents. To illustrate its increased performance over previous Luftwaffe fighters, read about the following incident:

Kert Tank, (the designer) was flying a TA-152H over Germany and was attacked by a flight of P-51D Mustangs. Kert put it to the wall and the Focke-Wulf leaped forward, leaving the startled Americans far behind.

The first of the Longnose Focke-Wulf series entered combat in the Winter of 1943. The Longnose cowling housed a twelve cylinder Jumo in-line engine of 2,060 hp. It regained a margin of superiority from the RAF in fighter-versus-fighter combat. Only ten of the 152H series entered combat and were used primarily to fly cover for the ME-262 jet fighters while taking off and landing. Because the Luftwaffe literally ran out of fuel, many of the Longnose fighters were destroyed on the ground. If you are one who does not subtract from a design because the creators lost in the war, you should recognize this fighter as one of the greatest.

Model Flight Characteristics

Ground handling is excellent at medium taxiing speeds. Gunning the engine will pull the nose down, so advance the throttle with caution. Take off – start your rollout at low throttle. The model will takeoff **comfortably** at one-half throttle. If full throttle is used the model actually leaps forward so fast it will outfly the pilot's reflexes. At half throttle the ship acts exactly like a Falcon 56 with a .30 for power. There are no problems with wing drop off or stalling with this model, so cool it on takeoff and the judges will love it. Once airborne, go to full throttle and prepare for action.

Design Changes from Scale to Improve Performance

The total area of the stabilizer has been increased ten percent to ensure pitch stability. Landing gear length has been shortened ten percent for better ground handling, especially when landing.

Airfoil Section

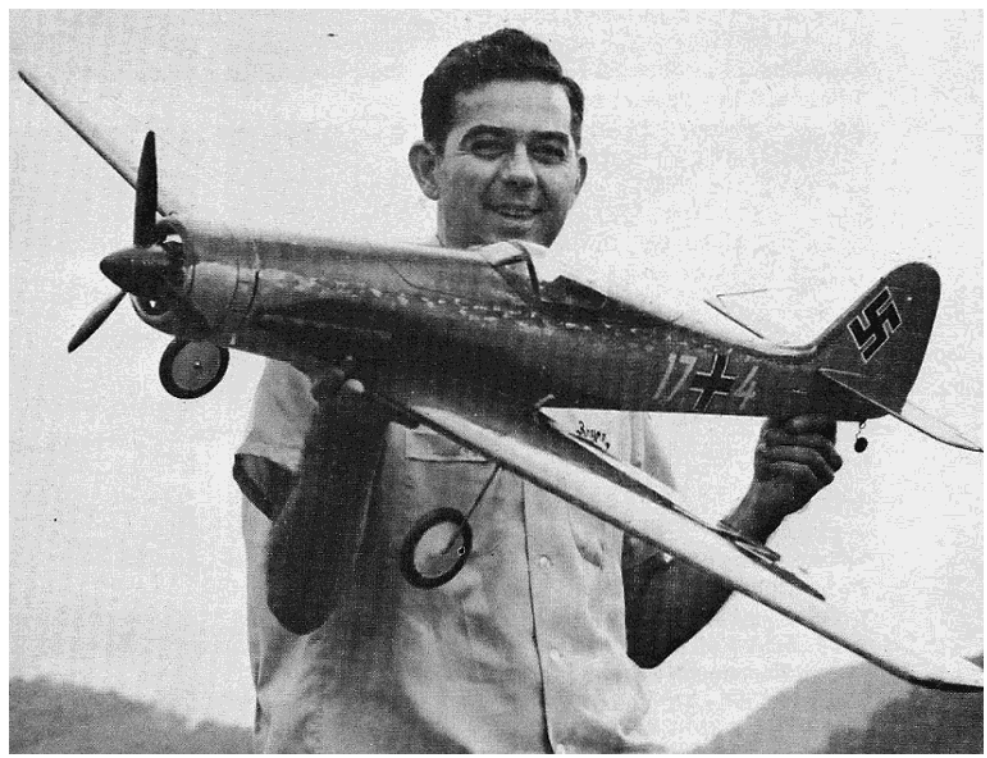
A unique airfoil section has been incorporated where the center of lift in the center of the wing is at the center of gravity. As the airfoil continues out toward the tips, the center of lift is moved back to fifty percent. This will give the tips a slower stalling speed, adding to stability, while landing at very slow speeds. It was noted during flight tests that you can approach a stall with the nose level and the wing center section will stall first, causing the nose to drop slightly. The tips, however, are still airborne. The wings remained level until the center section recovers. This is called 'stair-step stall and recovery.' The high aspect ratio wing contributes to the excellent slow, stalling speed, but will slow down the roll rate. For this reason, full span ailerons are used.

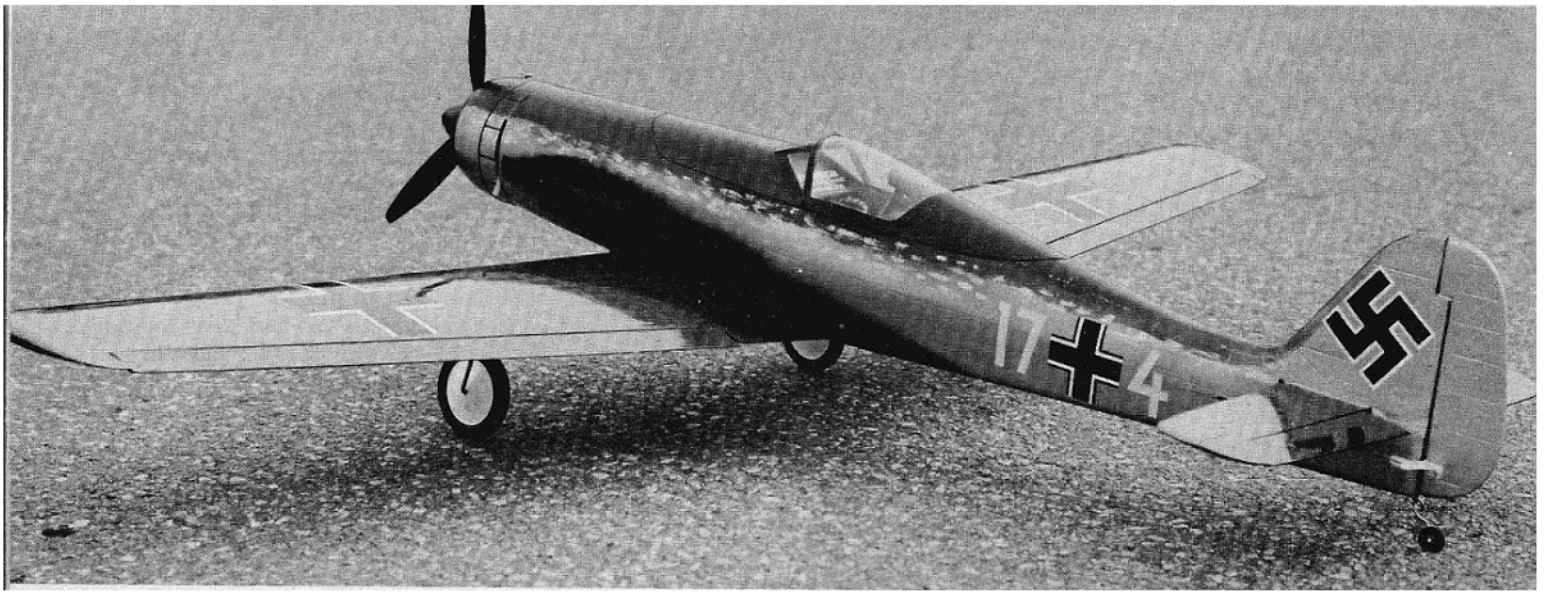
CONSTRUCTION

Follow the drawings and photos up through the basic fuselage and wing construction. The solid block turtle back and cowling will cost you a little green at the hobby shop but is worth it. For those of you who prefer aluminum cowlings, it has been my experience that balsa cowlings give you far better performance without the usual fatigue cracks associated with aluminum. You can also sand out better air vanes around the engine for cooling. Using thinned epoxy to fill the soft balsa will give you great structural strength. Any large bubble canopy will fit and the windshield frame must be custom fit to match it. Thin, stiff cardboard with epoxy will work well for this. When fastening the 1/16" sheeting to the sides of the fuselage, always secure the sheet along the straight edge first and let dry. Then moisten the sheet on the outside and bend it around the formers.

Covering

Super MonoKote was chosen because of its weight advantage, beauty, and its ability to show rivet marks using a marking tool. The colors are green and silver. When using MonoKote, always overlap at the joints so the material will bond to itself. Before applying MonoKote try to dry out your model for a day or so. Any moisture left in the wood will come





out in the form of blisters on your finish. If this happens, prick the blisters with a pin and reset the MonoKote with your iron. I found that Testor's enamel in spray cans will bond to MonoKote if you rough it a little with steel wool.

Power

The HP-40 R/C was chosen because of its advanced engineering design and obvious quality. Let me state from the beginning that this is the finest engine I have had the pleasure to own. From the first run on the test stand, it was obvious that this engine is a breakthrough in the 40-Class engines. It will idle down to a whisper for full stall landings. When the throttle is advanced, you have enough power to go straight up.

Landing Gear

The one piece landing gear is constructed from 3/16" piano wire and buried in the main wing spars. It is simple to fabricate and gives a superb knee action. The aircraft can be flown onto the ground at a fairly steep angle and will bounce right off again.

Rubber bands versus Nylon Bolts for Wing Mount

Most modelers feel that rubber bands are obsolete. Perhaps they are if you have enough runway for emergency landings. If you fly from the middle of a hayfield like most of us do, rubber bands can save you an afternoon of flying!

Propeller

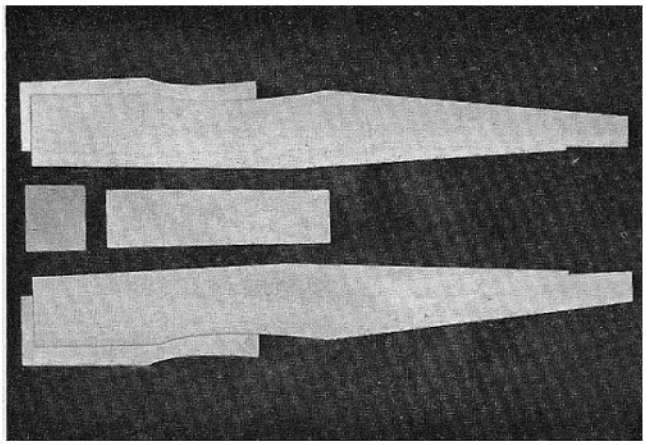
A nylon three-bladed 10-4 Tornado propeller is the airscrew and is a perfect combination for both appearance and performance. Boil it in black dye for ten minutes for added strength and scale appearance.

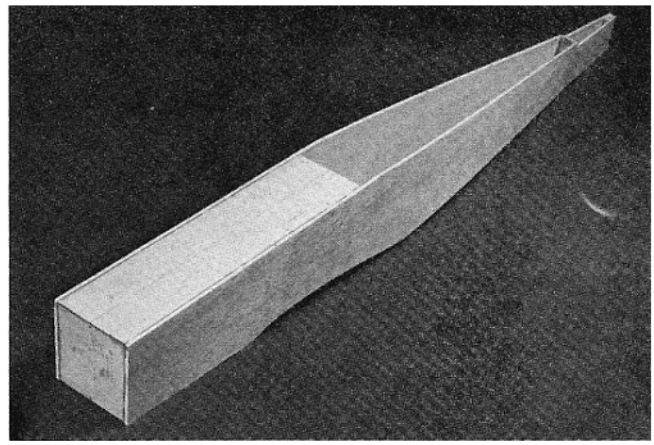
Contest Trail

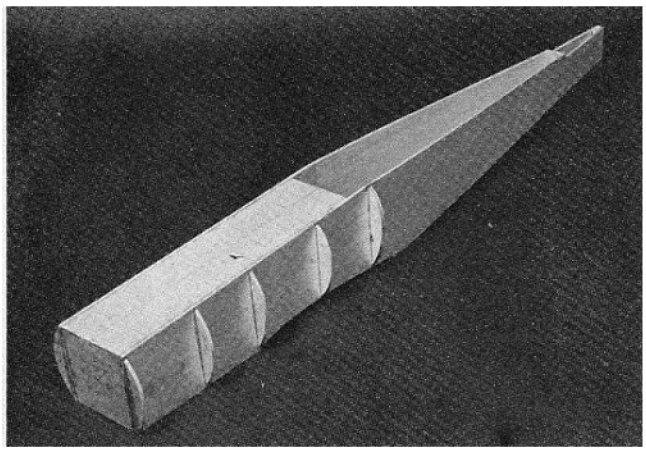
The model first entered the stand-off scale competition at the Area III Championships last October. It suffered because of the rubber bands and other modifications during the static judging (the judging was really tight). In the air, it was far out in front and won first place performing like a well-trimmed pattern design. The airplane is more capable in the air than my nervous thumbs can guide it. It can give you the edge you need to win – it has for me. My Series 71 Kraft system provides the control (bless its dependability) and the total weight of the ship is three pounds, eleven ounces using KPS-10 servos.

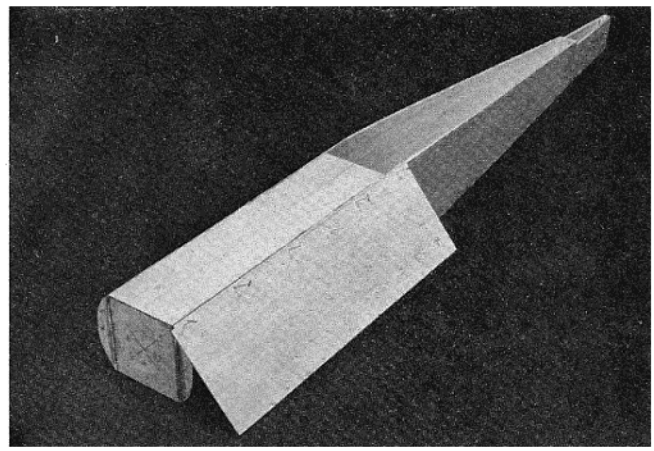
If the competition is tough in your area, I suggest you fasten the wing with Nylon bolts and add 1" to the landing gear length.

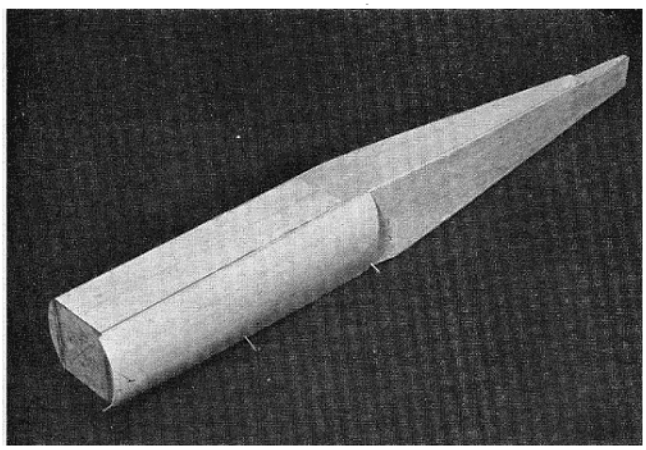
Impressed? Then start right away on this one. If it gives you the pleasure it has given me, how can you miss? □

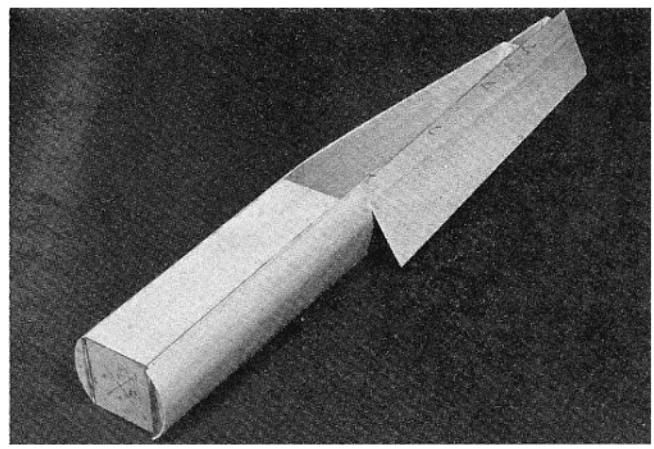


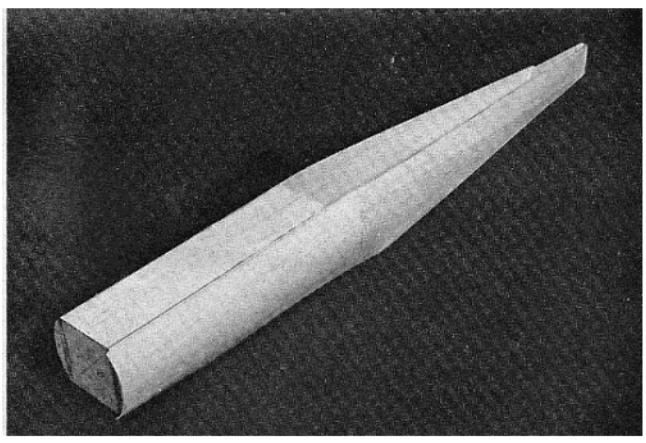




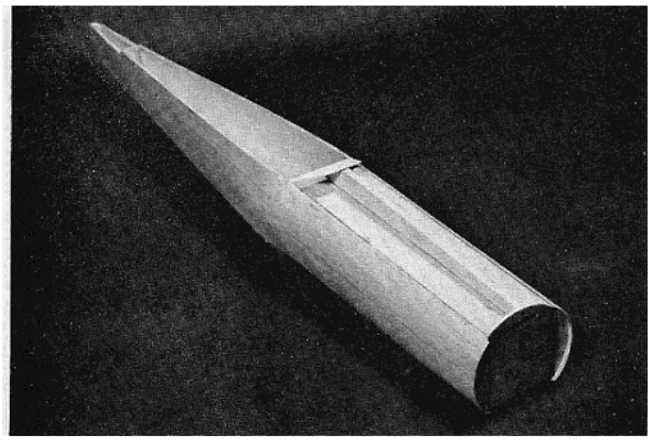


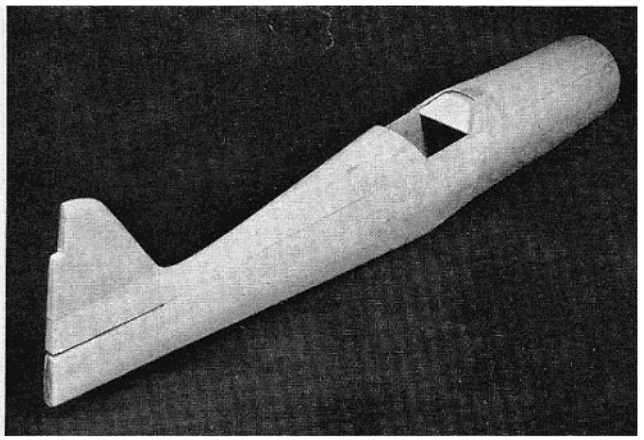


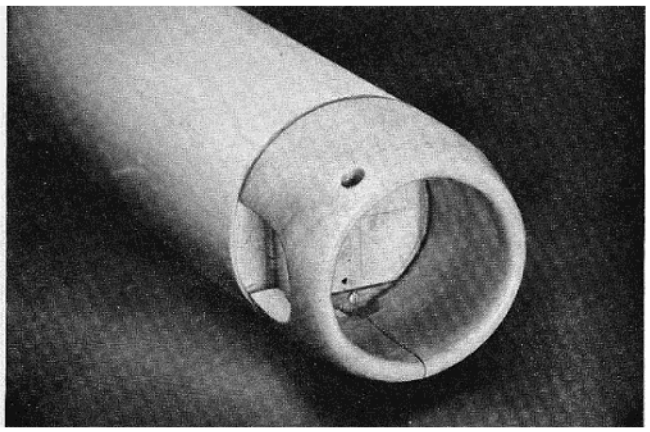


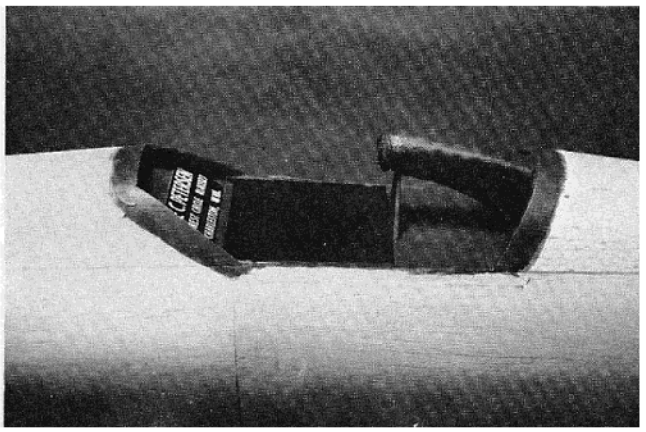


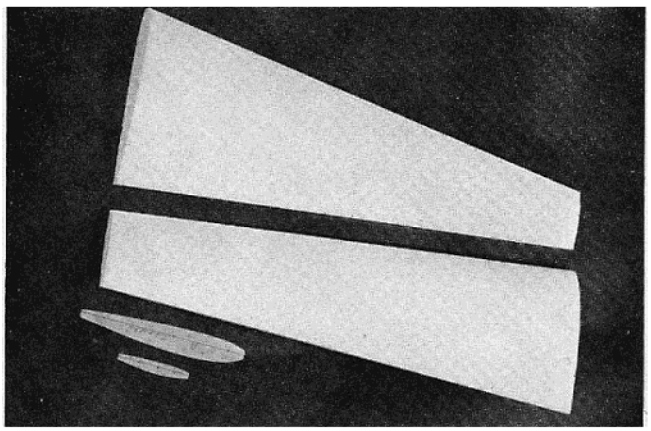
TOP ROW, LEFT: Fuselage parts for basic box construction. **RIGHT:** Step two is to assemble the fuselage "box". **2ND ROW, LEFT:** Adding the side formers. **RIGHT:** Adding the forward contour sheeting. **ABOVE, LEFT:** The completed front sheeting. **RIGHT:** Adding the rear side sheeting. **LEFT:** All fuselage side sheeting completed.

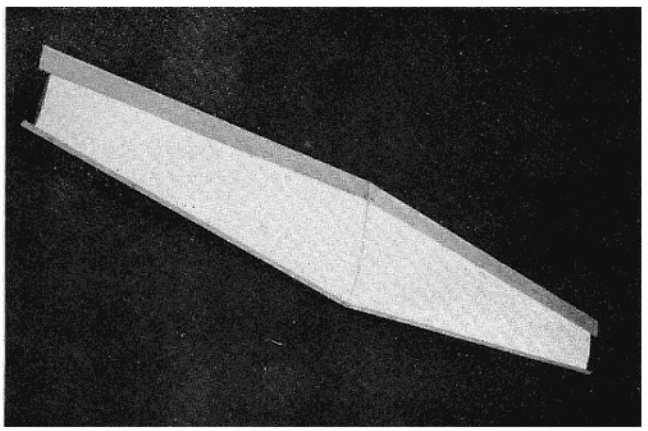


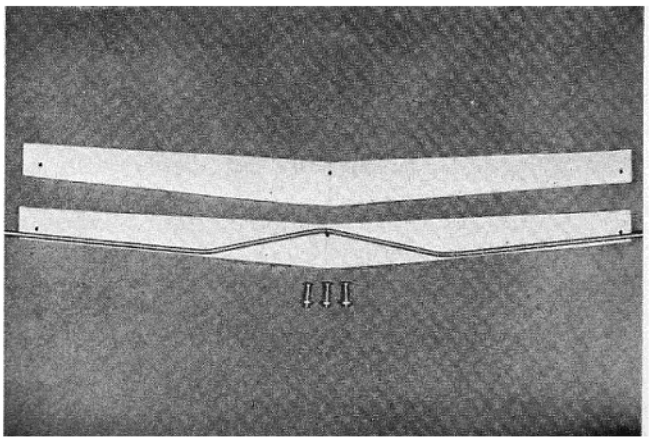


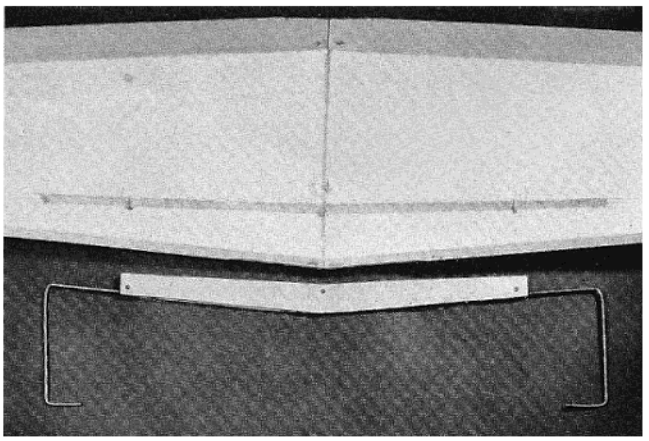


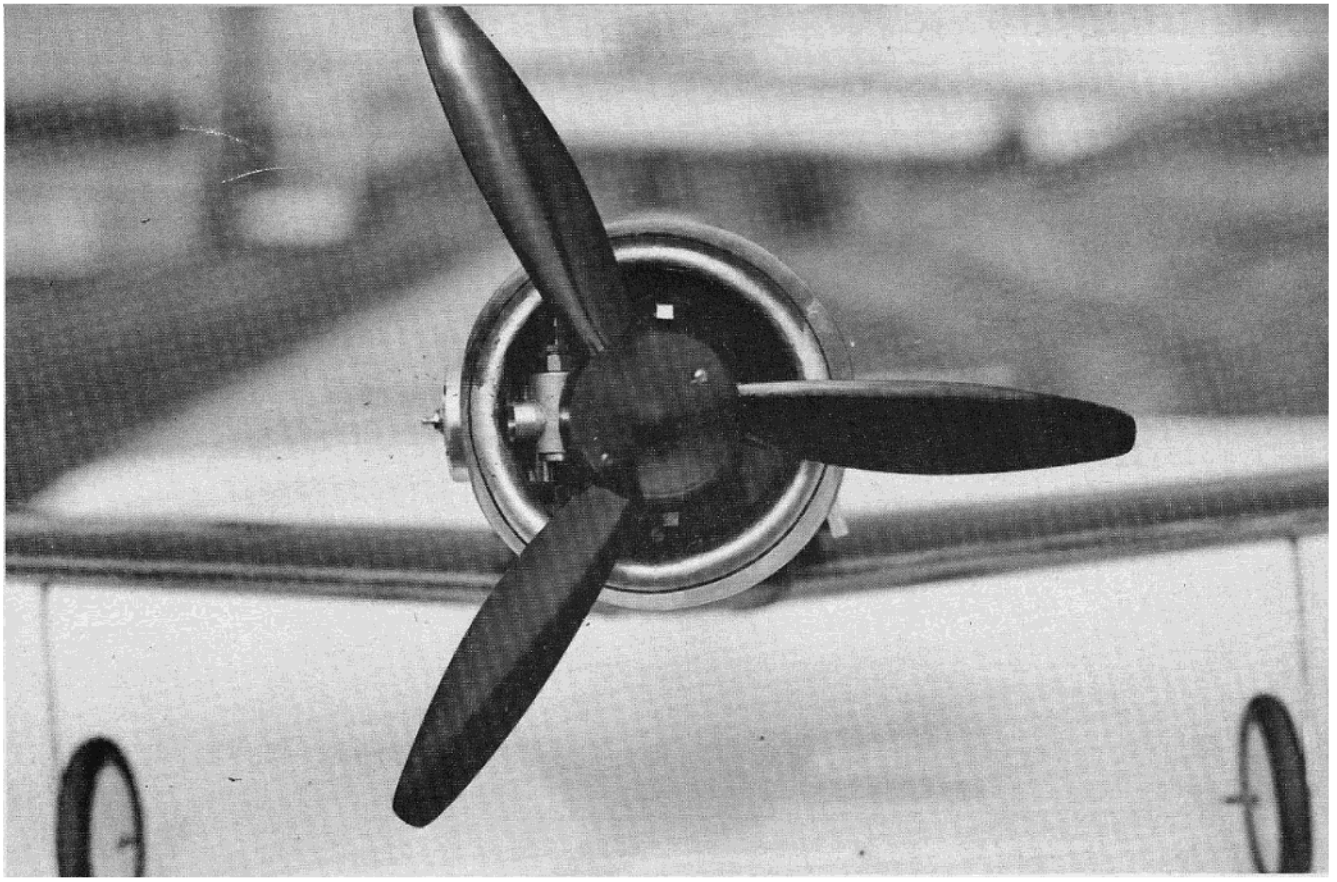












OPPOSITE PAGE, TOP ROW, LEFT: Adding top stringer and formers to fuselage. RIGHT: Top sheeting and vertical fin added. SECOND ROW, LEFT: Finished cowling fitted to fuselage. RIGHT: View of cockpit detail. Note name on instrument panel. THIRD ROW, LEFT: Completed foam wing cores and plywood cutting templates. RIGHT: The leading and trailing edges added to foam wing cores. BOTTOM ROW, LEFT: Detail shot of main landing gear components. RIGHT: View of cut-out in foam wing cores for landing gear. ABOVE: Three bladed prop adds to scale detail. BELOW: Rubber bands used for rough field flying. Wing hold down bolts would add to overall appearance and can be added as builder's option.

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