By WALT MITCHELL

PHOTOS BY ART HEIL

FOCKE WULF 190

The Focke-Wulf 190 series, designed by Professor Kurt Tank, was the best *Jaeger* the German Luftwaffe had to offer during World War II. This trim little fighter saw action on all fronts and may well have been the best of the entire war, with the possible exception of the P51D 'Mustang'.

Though not as well known as the infamous Messerschmitt Me 109, it was far superior to the 109 in all respects. Various configurations of wing cannon and machine guns gave it tremendous fire power. "The bloody Fockes," the British pilots said, "come at you blinking like bloody neon signs." A 14 cylinder aircooled radial engine with a supercharger produced a top speed of 408 mph at 20,600 feet, enabling the 190 to hit and run without fear of pursuit. It had an effective range of 500 miles, a wing span of 34'-6", and weighed 9,750 lbs.

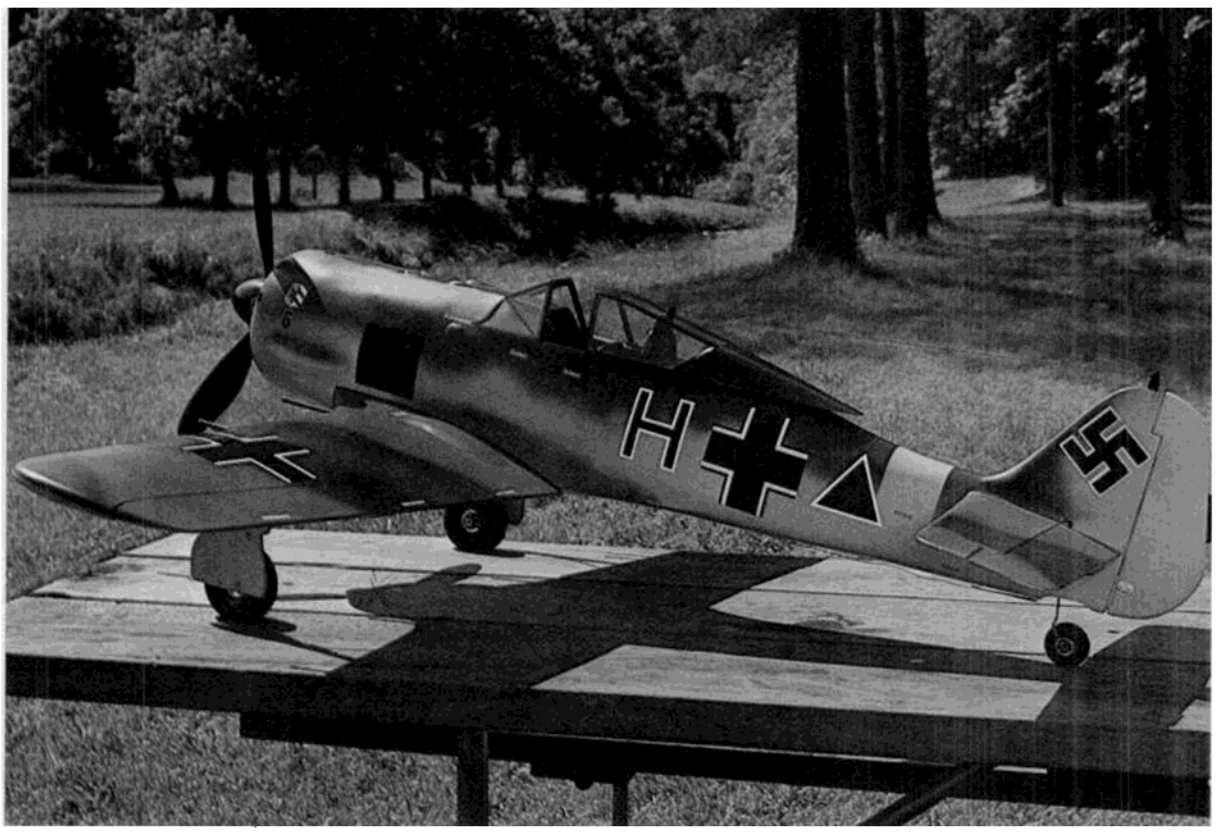
Professor Tank continually modified the FW 190 series throughout the war, evolving the FW 190D, or 'long-nosed 190', and eventually the Focke-Wulf TA 152 which saw only limited production toward the end of the war. The prefix TA, incidentally, was for the designer's name, a signal honor awarded Tank by the German High Command.

The R/C version of this great war-bird is definitely not a beginner's project . . . but it can win that scale contest for you, as it did for me in the 1968 Atlanta Nats . . . and thereby hangs an interesting tale, fraught with pathos and desire. This was my first big contest, even though at 39 I am the oldest boy on my block who builds model planes. I finished the FW just in time for the qualifying trials on Saturday, the finals being on Sunday. To qualify for scale judging, your entry must prove that it can take off, fly around and land all in one piece.

I arrived at the Atlanta Model Airport at 8:00 a.m., just like the Contest Director suggested, and fidgeted through seven interminable hours of pattern flying until they finally got around to scale. O didn't they fill the air with Kwik-Fli, Son of Kwik-Fli and I was a Teen-age Kwik-Fli? But at last the big moment had come, and the Focke-Wulf taxied out onto the Tarmac with the Kraft transmitter in the skillful hands of one Bob Roberts, fearless test pilot. After taxing it around for the crowd to admire, Bob turned the little fighter into the wind, urged the Enya .60 to full bore, and blasted off down the runway. Beautiful!

I was just beginning to have a deep goody shiver, when suddenly the flying fickle finger of fate pointed our way. With the end of the runway disappearing beneath his wings, 'Ace' Roberts lifted off without sufficient airspeed. The little bird staggered drunkenly for a brief moment, then . . . **STALL! SNAP! THUD!** and Gott in Himmel - what a mess. Tail assembly broken off, wheels ripped away, servos scrambled . . . ugh! Test pilot Roberts was in shock, babbling profuse apologies. Being a Great Sport, I absolved him of all blame, cutting off only the very tip of his little finger with my trusty X-Acto as a stern reminder of the day. Tears welling in my eyes, I placed the gaily colored bits of balsa in a sack and departed the field a beaten man, leaving first prize to my arch scale enemy, Bob Lamb, and his beautiful Ford Tri-Motor. O bitter gall!

Back home again, I mixed a tall, cool one and sat staring vacantly at the wreckage. Then I mixed another . . . and another. And gradually the lion-hearted courage (for which I am renowned from Opp, Alabama to Ludowici, Georgia) returned. Had anyone observed, they would have seen a look of great inner strength and determination



steal slowly over my boyish features. My firm jaw set in a rock-like outline . . . **NO, BY NED!** I would not squat down in defeat and leave the coveted silver goblet to that furshlinger Tri-Motor. Smiling my funny little crooked grin, my keen gray eyes aglitter, I repaired to my workshop armed with Tite-Bond; Epoxy, and a considerable quantity of Johnny Walker Red. Later, much later, when the first rosy fingers of dawn caressed the eastern sky, the Focke-Wulf was ready again. Not in mint condition, but good enough to compete, given some luck and nearsighted judges.

On this, the final day of the contest, Test Pilot Herr Roberts was ready, too. Having diagnosed the problem in his troubled sleep as lack of power, he recommended the 13-4 prop be replaced with a 12-4 to allow the .60 to wind up. We secured permission to qualify again and fired the 190 up O.M.T. This time, as I watched through a slowly lifting Scotch mist, the Focke-Wulf did good like a Focke-Wulf should, and qualified handily. I still hear the throaty huzzahs of the crowd.

In the finals, after scale judging, Roberts flew like his mother was Eva Braun, and wrested the first prize silver away from the greedy clutches of assorted Tri-Motors, Chipmunks, Bipes, Goodyears and what have you. When the going gets toughest, the toughest get going . . . Bob and the Focke were tough that day. For my part, I fell to the ground in a catatonic state and received the silver goblet somewhat posthumously. Believe me (and Vince Lombardi) . . . that second effort always pays off!

CONSTRUCTION

The plans are available for a few Beutschemarks from our beloved Fuehrer of modeldom, Herr Dewey. But before beginning construction, go first to your friendly local hobby shop and purchase the plastic model of the FW 190 by Monogram. Be sure you get the Monogram kit. Build the plastic model carefully . . . you will need to refer to it in constructing the R/C version. Save the instruction sheet. It will give you authentic coloring and marking and will serve as the required 3-view in a scale contest. Your wife will think you have suffered a terminal age regression when she sees you fiddling with a plastic model and will probably give you some lip. But if you will strike her smartly on the flank with the 36" length of 5/32 wire, she will retire and leave you to your various devices.

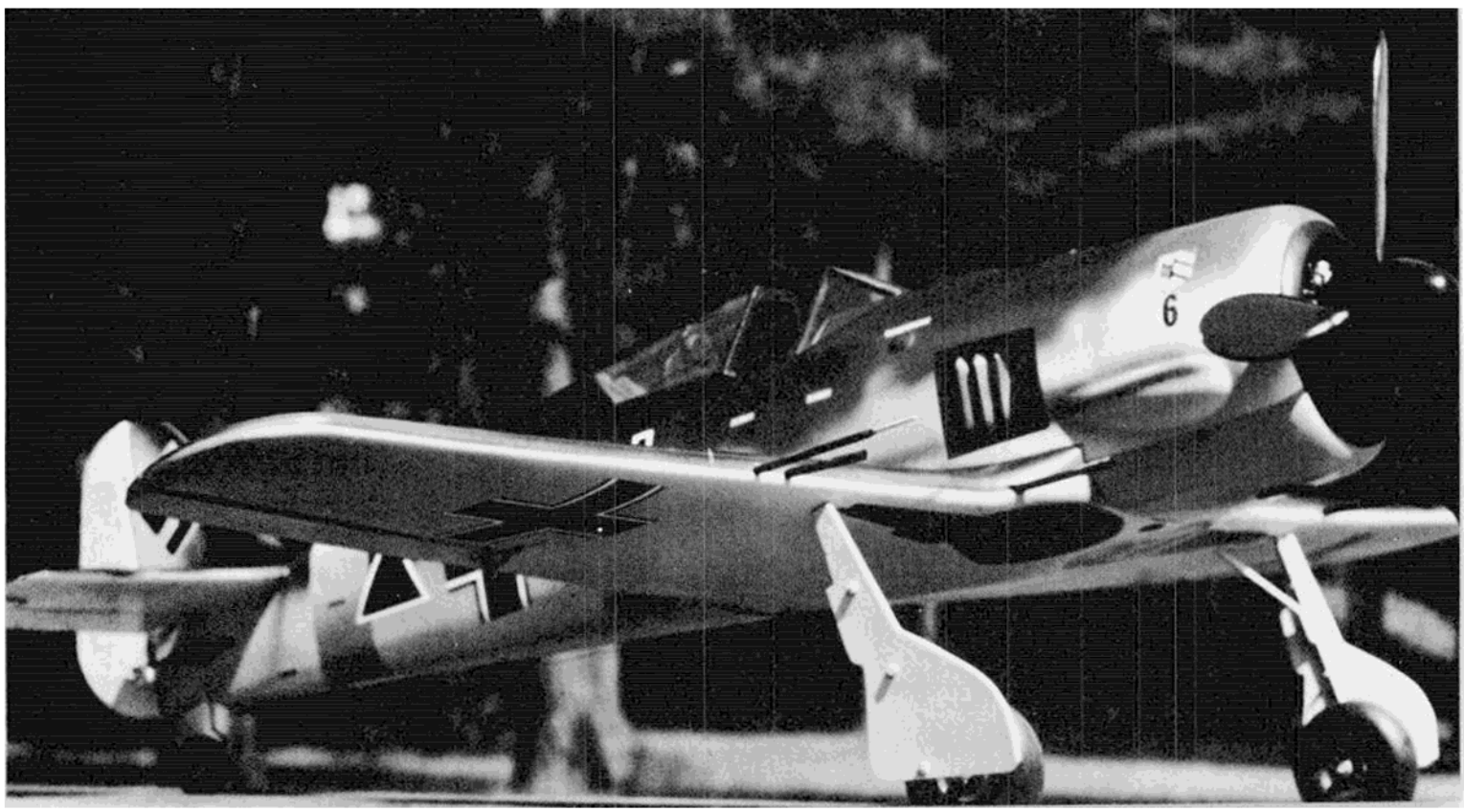
The fuselage begins, as in the olden, golden days, with the construction of two frames of 1/4" square balsa along the dark outline shown on the plans. After these are properly joined, add formers cut from 1/8" sheet, being sure to cut them smaller than the cross-sections to allow for the skin of 3/32" sheet. Stringers come next to give support, and the entire fuselage is then sheeted with 3/32" balsa.

The sliding canopy will give you some trouble, but it will also get you some scale points when you slide it back and reach inside the cockpit to flip on the switch. Essentially, it involves two plywood plates, the bottom one fixed to the fuselage and slotted to accept a T-bar as described on the plans. Build the canopy as if it were not to slide; after sheeting the fuse, cut it loose, add the plywood plates and T-bar. Then slip the assembly together. It's hard to draw or put down in writing, but you will dig when you get involved.

The engine exhaust vents are functional and are necessary to dissipate heat from the fully cowled engine. Each vent is a tunnel down the side of the airframe and the exhaust exit is formed by soft wire bent in the shape of a former and sheeted over. Take care to fuel proof the inside of each tunnel so that fuel and other corruption does not enter the servo compartment.

The cowl is of fiberglass and permanently attached, which solves a lot of problems. There is ample room to service the engine through the front, and the mill may be removed completely by unbolting the Tatone

Blunt-nosed, bow-legged FW-190 was, perhaps, the best fighter of WW II. Note exhaust ports, which are functional.



mount from the firewall. Blind nuts receive the Tatone mount bolts through the firewall. The cowl was made by cementing a goodly number of balsa blocks together, tack gluing to the firewall, and carving to the proper shape. Be sure and allow for the thickness of the fiberglass. Remove the mold from the fuse, fiberglass it, gouge the balsa mold out, and you've got your fiberglass cowl shell. Attach permanently to the airplane and fair the joint smooth with 'Stuff', Epoxolite or what-have-you. The cowl ring is jig-sawed from 1/4" plywood and sanded to shape.

The real 190 mounted a huge paddle bladed prop with a large spinner. On the model, these were dummied from balsa and used for scale viewing only, which is permissible under the rules. A commercial plastic spinner with a 12-4 prop was used for actual flight.

Note from your Monogram model that the vertical fin is very thick at the base and fairs directly into the shape of the fuselage. I built the fin 'standing up' on the fuse, starting with the sculptured leading edge and working carefully to avoid misalignment. The rudder is also thicker than you would expect, but can be built flat and sanded to shape.

The wing . . . ah, the wing. This was my first go at a quadruple taper, and after many false starts, I solved it as shown on the plan. This may not be the easiest way, but it works. The secret, of course, is getting the ribs properly set up before drilling the holes for the aligning rods. If this is done correctly, you can't go wrong. The entire wing is sheeted with 3/32" balsa and results in a tremendously strong structure. The balsa block at the leading edge which houses the wheel wells is sculptured into the fuselage shape, again using your plastic FW 190 as reference. The wing is secured to the fuselage with nylon bolts.

Retracting gear was not used on the prototype because I am not familiar with it; also, I had no guarantee the 190 would even fly. But fly it does, and if you could work out retracting gear, this airplane would look so good flying that you couldn't stand it. You could even get nose-to-nose with the great Lou Proctor at a scale contest if you had a Focke-Wulf with hide-away wheels.

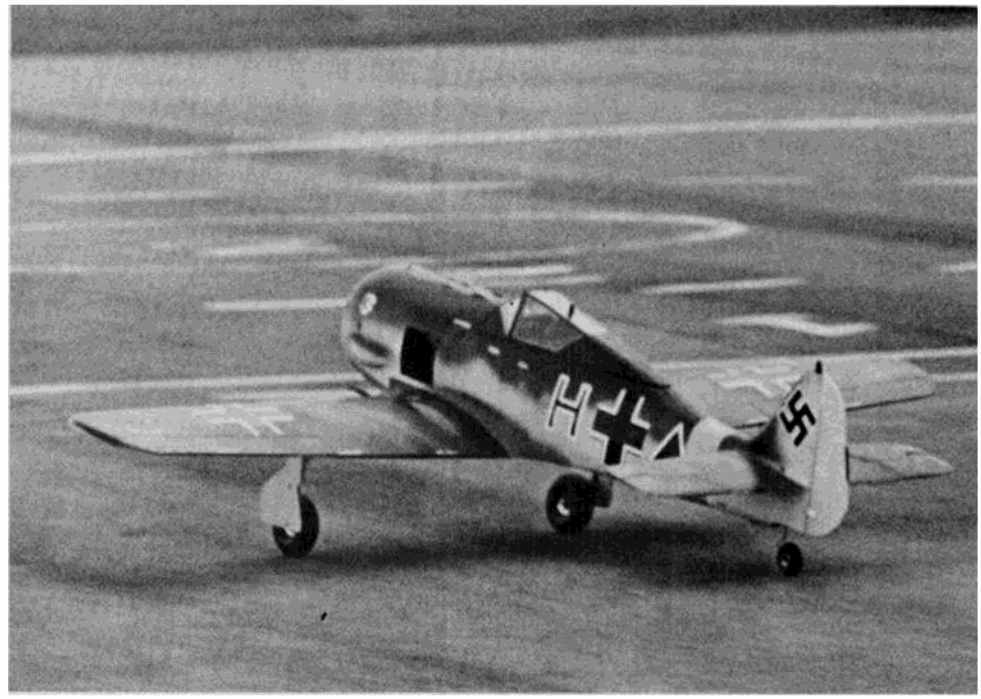
FINISHING

Brush three heavy coats of talcum powder and dope mixture on all surfaces, sanding out imperfections between each coat . . . then cover with silk. Apply talcum powder and dope mixture four more times, sanding down almost to the silk each time. Spray with clear dope to seal, sand again and you're ready for color. Spray on the base coat (light blue, mainly on the underportions), then begin spraying on camouflage colors, the lightest first. Use a piece of cardboard cut to the outline of the colors shown on the Monogram instruction sheet. Hold the cardboard four inches away from the surface and spray past it to avoid hard outlines. After your FW 190 is suitably and faithfully camouflaged you will probably have a shinier finish than you want. The FW 190 should have a matte finish. To achieve this, load your spray gun with 40% - 60% clear dope and thinner, step well back and dust the entire aircraft with a light mist. Decals of the proper size are available from 'Finishing Touch'.

FLYING

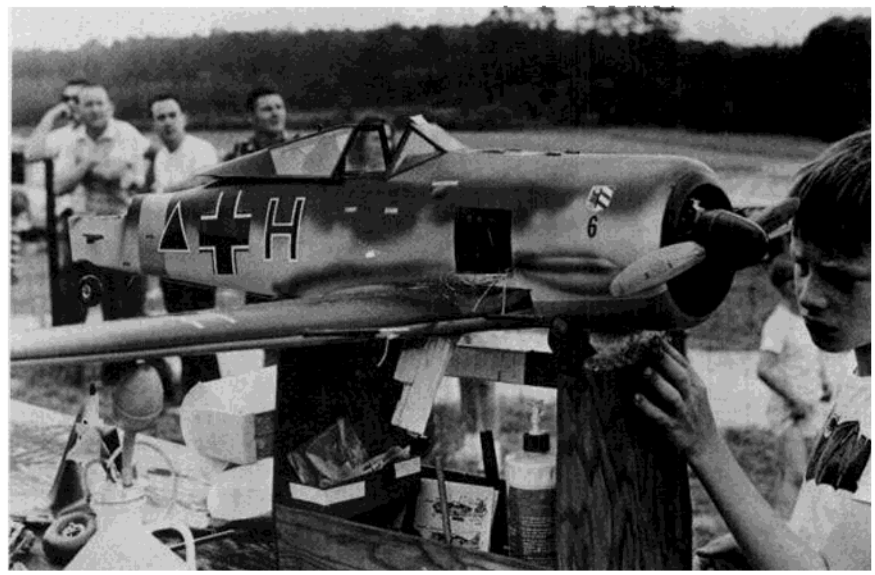
The prototype flew well (finally) with an Enya .60 and a 12-4 prop. But it could use as much power as you can cram under the cowl. Keep it on the runway as long as possible and lift off gently. When landing, remember the

(For the exciting conclusion, turn to page 56!)



Focke Wulf heads down the runway, seconds away from snap-roll and crash.

Author's son gives Focke Wulf tender sympathy. "Who killed the bright-headed bird?"



(continued from page 29)

high wing loading and fly it in under pretty good power, chopping throttle only just before touchdown. Like the real airplane, if you lose flying speed, it just quits flying and drops. Ground handling, because of the wide landing gear stance, presents no problem and there is no tendency to ground loop on take off. Flaps would be great, if you can arrange them.

Achtung, Seig Heil, and Mit Freundlichen Gruessen. Wear your Focke-Wulf 190 in health and keep your nose down. I'll answer any questions I can if you'll write me at: 1921 Walthall Drive NW, Atlanta, Georgia 30318. I would also like to see photos of your completed model, and would appreciate your comments in general, provided they are complimentary. ●