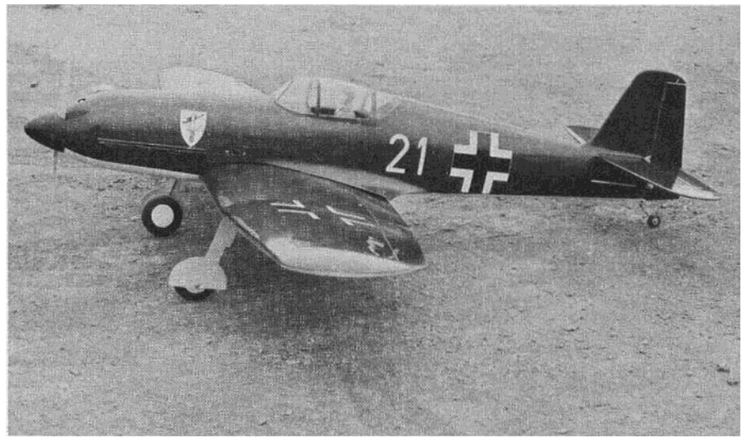
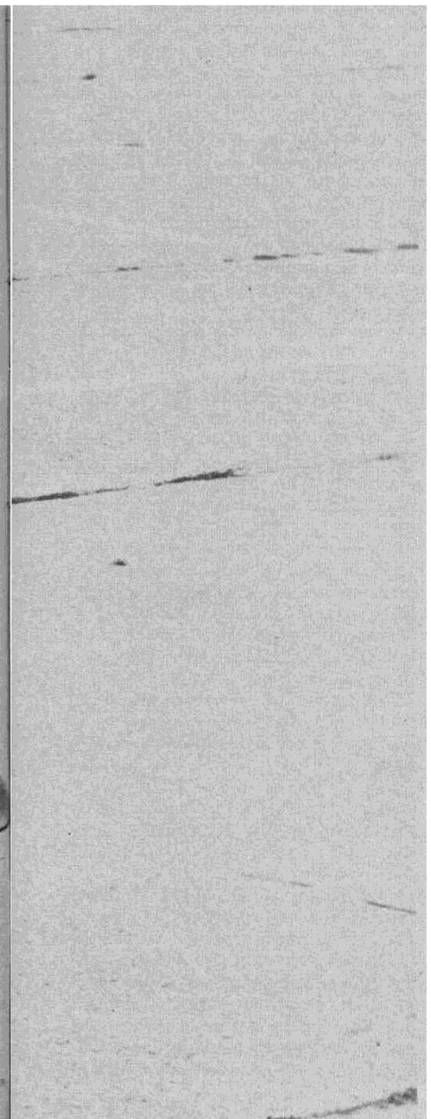
One of the biggest frauds of World War II is resurrected as a fast, high-performance .60 powered Stand-Off Scale ship complete with flaps and bomb drop. If you're looking for something different try Nick Ziroli's

HEINKEL He 100

BELOW: Nick Ziroli and his He 100. Blue Max Radio and O.S. Max .60 Power. RIGHT: Heinkel has Acrylic Lacquer finish, Goldberg Retracts.





● First flown in early 1938, the Heinkel He 100 series was to become one of the Fuherer's biggest frauds of WW II. Heinkel designed it as the ultimate fighter after his unsuccessful attempt to sell the Luftwaffe on the earlier He 112 design. The new plane was to be easy to mass produce with as few parts as possible. (It contained only 969 single parts while the He 112 had 2885.) The He 100 was designed to obtain a speed of over 450 mph, no easy task for a combat aircraft in 1938 when it was test flown. Performance was so good Heinkel decided to try for the 100 km. closed course speed record. This was not to be since the Luftwaffe, realizing the potential of the new plane, took it over for flight testing.

On June 6, 1938, Ernst Udet flew the second He 100 to a new record speed of 399.4 mph. This beat the Italian record by approximately 50 mph set by a Breda 88.

At this point the propaganda machine started grinding out new stories claiming the new record was set by the inferior He 112 fighter in limited production at that time.

With the 100 km. closed course record won, Heinkel set up a special He 100 to capture the absolute speed record. This plane was lost during a test flight when the landing gear failed to extend. The pilot bailed out and the plane crashed. A fourth plane was readied and, in March 1939, a new record speed of 463.92 mph was obtained.

This record was set with a souped-up streamlined He 100 with 6 feet of wing clipped off, reducing the wing area by about 20%. The engine could put out 1800 horsepower and, when this was strapped to a 25 foot wing, it had to go!

Again the propaganda mills went to work claiming the new record was set by a standard fighting machine of the Luftwaffe and not a racing plane.

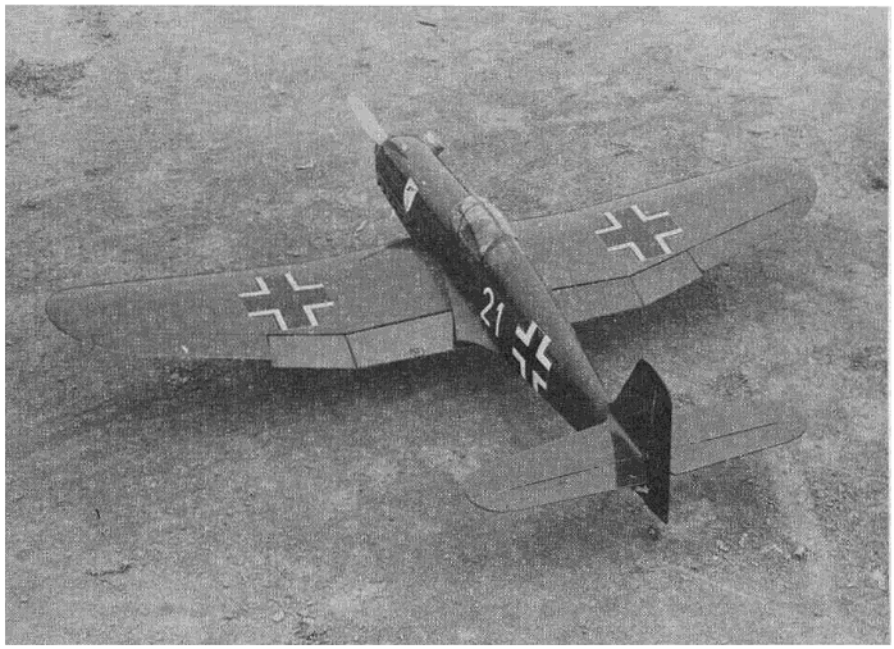
Actually the He 100 was never put into production. It was no fault of the airplane but, rather, the shortage of the required engine and, also, since it too closely duplicated the Me 109 that was currently in production.

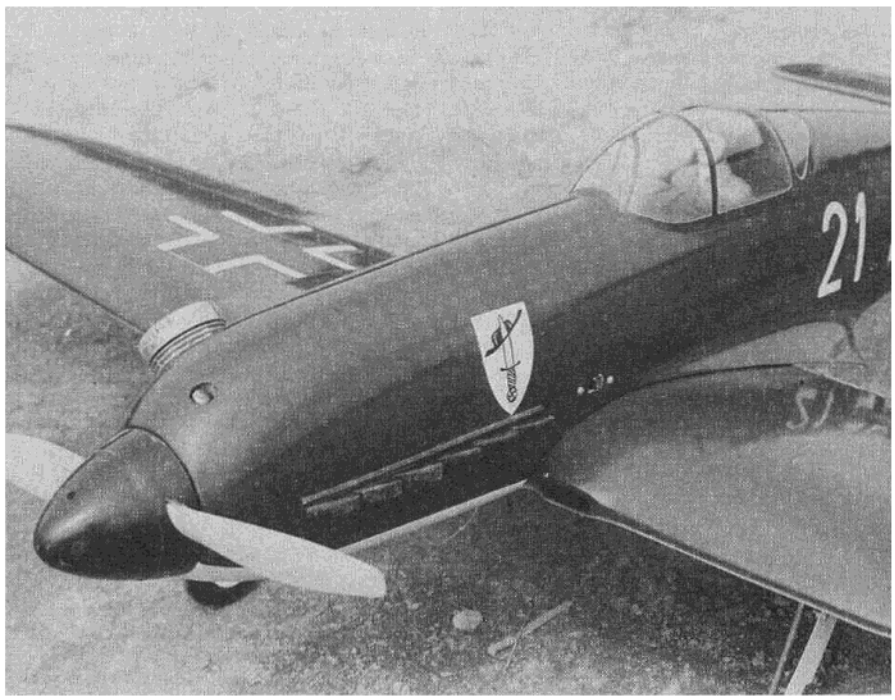
All the pre-production planes were sold off, six to Russia and three to Japan. The Japanese were going to manufacture the He 100 under license to Heinkel but this never took place. The 12 production He 100 D-1 fighters were used as further propaganda. They were called the He 113 and claimed to be a new front line "Wonder Fighter." Frequent repainting and fraudulant emblems and numbers made the dozen planes look like many. They were photographed constantly for propaganda use. This must have been effective since pilots reported encountering them and actually shooting them down. In fact the He 100 never saw any combat at all. In fact, it's only role as a military machine was for propaganda purposes.

The clean rakish lines of the He 100 lend themselves to producing a good looking model. I mounted the engine at an angle so the distinctive shape of the nose would not be lost. We went the whole route with retracts and flaps. All six channels of the World Engines "Blue Max" Mk II radio system were put to use. An S-5R servo was used to operate the Goldberg Retracts. I have found that, set up properly, this combination will give long and trouble free service.

An S-5R servo was also used on the flaps and for a bomb drop. Since the S-5R has 180° of travel this is more than enough for the flaps. Looking at the top of the servo with the output wheel in the up position, drill a new pushrod hole in the 1 o'clock position (12 o'clock faces forward). Now, down flap puts the hole at 7 o'clock position. Effecting flap travel is obtained between 7 and 11 o'clock positions. From 11 to 1 o'clock there is little flap movement. This segment of travel is used to release a bomb via a second push-pull rod.

Three He 100's have been built, with and without flaps and retracts, and all have flown well. It has good potential in any Stand-Off scale contest and has placed high in every contest entered. Excellent documentation can be obtained from "Aero Series" Volume #12.





CONSTRUCTION

Begin construction with the wing. If you are an advocate of foam wings make templates from ribs W-1, 5, and 10. Four panels must be cut. Be sure to cut in 1/4'' washout in the outer panel tips.

The built-up wing is self-explanatory. It is assembled over the plan with the 1/4'' square rib shims used to hold the ribs at the correct angle. The center section is flat on the bottom at the spar. Leading and trailing edges slope down to W-5 giving a slight inverted gull appearance. Build the ailerons and flaps, if used, into the wing and cut off along the rear spar when the panels are completed. Epoxy the outer panels in place at 1¾'' dihedral. Be sure the aileron control system works freely before closing up the wing.

Cut the fuselage sides and doublers from flexible, but not too soft, 1/8'' sheet. Note that the sides are 1/8'' wider than the outline on the plan. The doublers are glued to the sides with contact cement. Cement the 1/8'' x 1/4'' bottom stringer in place.

Join the sides F-1 and F-4. Dampen the outside of the sides if necessary to form around the formers. Hold in place with tape and rubber bands and use epoxy. When dry, add F-2 and F-3. Pull the tail together and add the remaining formers. Cement the cockpit parts and plank the top with 1/8'' x 3/8'' strips. Before the bottom was added I installed the servo mounts and Gold'N Rod pushrods. After this the front and rear bottom blocks are cemented in place.

Mount the engine on a radial mount (I used a Kraft) and mount this on the firewall in the position shown. I tilted the cylinder at a 45° angle to preserve the distinctive profile of the nose. A Du-Bro "Muff-L-Aire" is used in an effort to keep the nose uncluttered. I mounted the radial mount permanently to the firewall. The engine is installed and removed through the cylinder hole.

With the engine mounted, epoxy the nose blocks in place. Hollow the blocks as required before installing. Rough carve the blocks to shape and remove the engine by opening up the cylinder hole enough for it to fit through. Finish carving the nose and bottom blocks to shape.

Epoxy the hardwood wing mount block in at F-2 and F-4. Place the wing exactly in place and mark the hold-down screw locations. Drill and tap the blocks 1/2'' x 20. Cement the 1/32'' plywood fillet outlines to the fuselage sides and hold in place with the wing. Build up the fillets with surfacing resin and micro-balloons mixed to a putty consistency.

Make up the stabilizer and elevator assembly and epoxy in place. The fin is epoxied in place and a filllet applied. I hinge the elevator and rudder after the parts are finished, but before the color is applied.

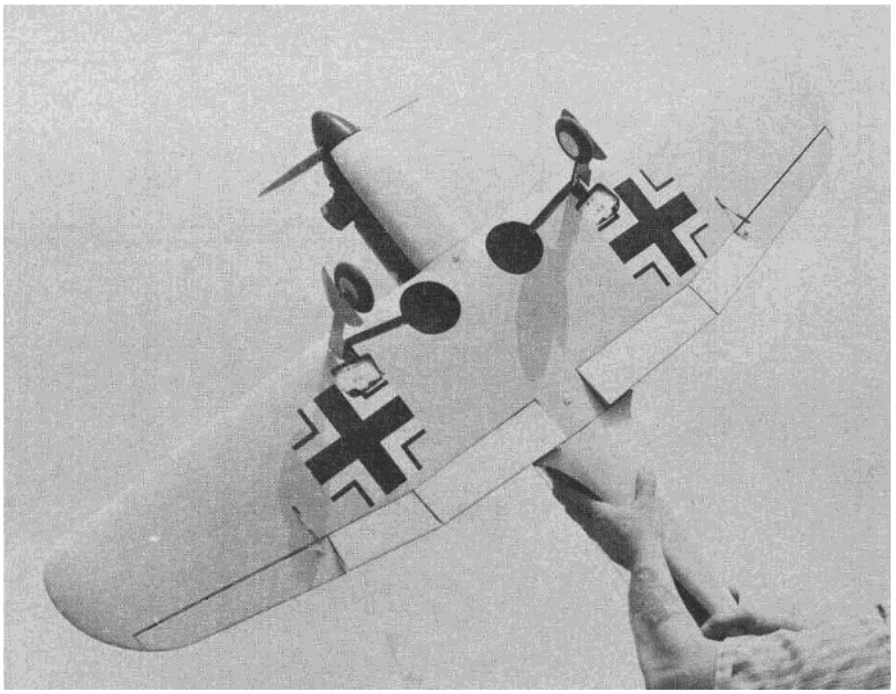
Seal and paint the cockpit area, then cement the canopy in place. This can be a modified stock canopy or obtained as shown on the plan. Finish the model using

whatever system you prefer. My He 100 was finished with surfacing resin and acrylic lacquer. This gives a very good finish very quickly but has its shortcomings. I find it does not stand up to vibration and normal operating stresses and cracks develop rather easily. Since this plane has been built I have used the surfacing resin with light fiberglass cloth using it much like silk and dope. It it faster and adds a lot of strength without much weight build-up. I used an acrylic Cadillac "Hunter Green" with a little black added to darken it somewhat. This is slightly metallic and makes the model really sparkle. I know the real planes were not painted metallic, and the purist would object, but this is not a "super scale" model. The photos I have seen of the real plane show it to be very shiny, probably due to numerous repaintings. The bottom is blue grey, while all markings are black and white.

If the flaps are used the rear wing mount block must be cleared away a little for the flap horns. The flaps should travel to 50° down for best results. Much less than this does not offer enough drag but, instead, increases lift to a point that the model balloons and becomes very difficult to land.

Flying the He 100 is a pleasure. With a Max .60 it is fast and groovy. It will do just about any maneuvers the pilot can put it through. Landings can be made at a very slow 3-point attitude without fear of tip stalling even without flaps.

The three models that have been built all have performed very well. If you find this little known airplane appealing, give it a try. I think you will like it. □



OPPOSITE PAGE: Three quarter rear view of Heinkel. Close-up of nose showing angled .60 Hunter Green acrylic finish over surfacing resin. Low angle shot shows flap hinge line. ABOVE: Bottom view showing Goldberg retracts and flaps. BELOW: The author and Carlo Masullo with pair of He 100's.