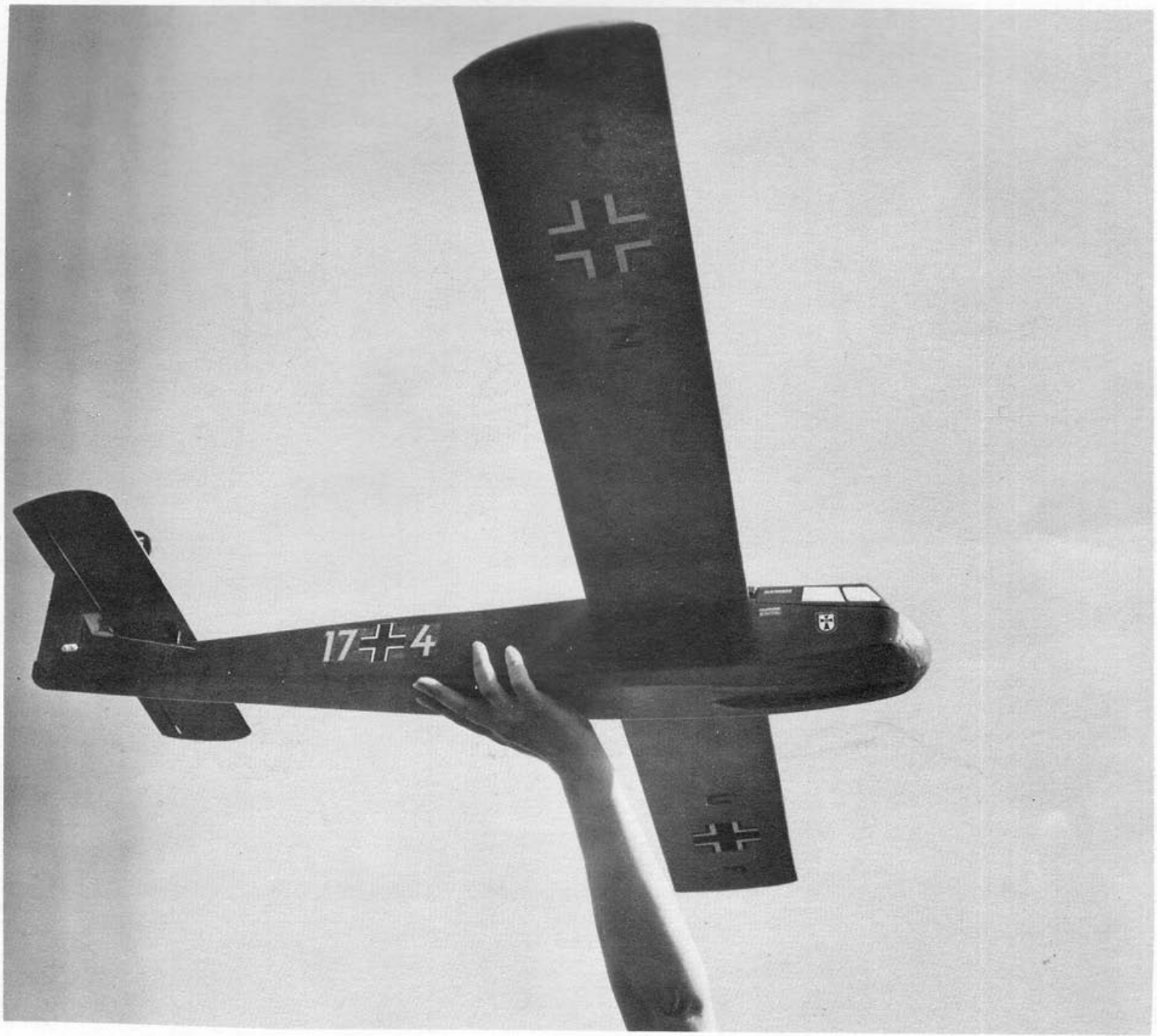
NORAIR

OCT. 1968

Modeller



Now! IN Color

OUR FULL SIZE FREE PLAN

"DAS UGLY GLIDER"

"The B-17's droned on, deep into Germany now, but still flying an impeccable formation. In the gun turrets of "The Saint Jo Belle" wary eyes scanned the skies for attacking fighters. The rear gunner, like the others, saw nothing but enemy fresh air, except for what appeared to be a fly slowly approaching his window. As he leaned forward to get a closer look the fly opened fire ....."

Maybe this wasn't quite how Dr. Vogt imagined it, but this was the basic idea behind his design, the Blohm und Voss BV40. Sudies by the German Air Force had shown that it was almost impossible for their existing fighters to approach close enough to a bomber formation to execute an effective attack. What was needed was an invisible fighter, and the F.W. 190's frontal area of almost 17 square feet wasn't invisible by any means.

Richard Vogt, however, proposed that if sufficient frontal area could be removed, then invisibility could almost be achieved, and that this might be accomplished by eliminating the engine, and using a small glider as a fighter. Certainly unorthodox, the idea was not without appeal, and a design study to investigate the minimum frontal area fighter was made, which resulted in the BV40.

Our drawing on page 4 shows the final configuration, the armament being two 30 mm cannon tucked under the wing roots. A further weapon was proposed - a small bomb which could be suspended from the glider by a cable, but this was not developed.

After the usual teething troubles with the prototype designs, satisfactory flying characteristics were obtained, and flying speeds of about 300 m.p.h. were achieved. However, time had run out on the Luftwaffe, and the BV40 programme collapsed (together with the Third Reich) before it could be tested in battle.

THE MODEL

We first scaled down the design to make the wing span around 50", but it was immediately obvious that certain changes would have to be made. The fuselage as drawn was much too bulky, and the tail surfaces too small. So we moved a line here, and changed a curve there until we had a sensible looking model. We don't therefore claim that this is a true scale model, but rather semi-scale, we tried to preserve the "feeling" of the original.

WINGS

The wings are made in two pieces. First obtain two sheets of 1/16" x 48" x 6" wide, one reasonably stiff for the bottom surface, and a more flexible one for the upper surface. Pin down the lower sheet, and mark on the rib locations with a ball point pen. Cut out the required number of wing ribs and glue these in place after first gluing down the leading edge. Now fit the main spar to one wing, and when dry, attack to the other wing. The upper surface sheeting can now be fitted. Attack the wing tips which are made from soft block. Sand the complete wing to the final contours, then reinforce the centre section with gauze bandage securely glued in place. Don't cover the wings yet, as the fuselage fairing has yet to be attached.

FUSELAGE

This is very simple to construct. Cut out the two fuselage sides from medium soft 3/16" sheet, and attach the frames etc at the locations shown. The nose block, and lower fuselage block are next glued into place, followed by the upper and lower fuselage sheeting. Don't forget to add all the local reinforcing pieces before closing up the structure. Cut a slot in the upper sheet at the rear for the fin. Sand to the correct cross sections.

TAIL SURFACES

These are made from medium soft 3/16" sheet, and should be as light as possible. Sand to the aerofoil shape shown, and sew on the control surfaces. (This applies only to the G.G. set-up, use regular hinges if using servos). Glue the tailplace to the fin, add the triangular supports, sand well and then glue into the fuselage. The fairing above the wing can be made now, using mainly soft 1/8" sheet. Glue this to the upper wing surface, and sand to fair in with the fuselage contours.

The cabin-hatch can be made next. The plan doesn't show this too clearly, so our sketch below should be consulted. This hatch gives access to the battery compartment, and can be attached by an internal rubber band.

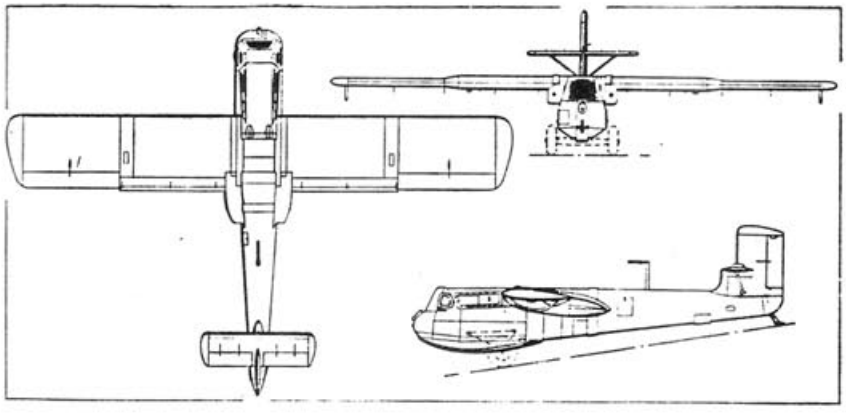
FINISH

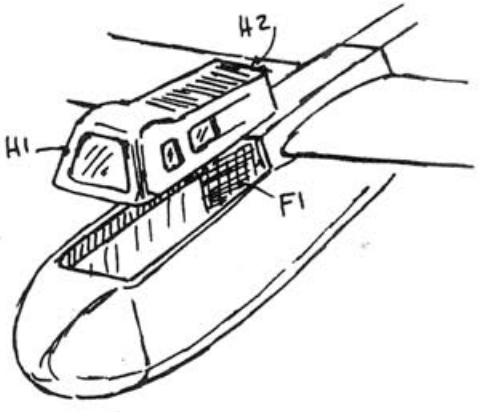
We covered the completed model with Jap Tissue, after a preliminary coat of clear dope and a light sanding. A further coat of clear dope, then the colour was sprayed on. All upper surfaces should be green, and the lower surfaces blue. Add the national markings etc. now.

RADIO

We didn't show any great details of the radio installation, as everyone has his own pet system. We personally used a Hallco 103 G.G. and this fits quite easily into the fuselage. If G.G. is used be sure to make the control hinges very free. As the nose movement is quite short its wise to keep the radio as far forward as possible.

BLOHM UND VOSS BV 40





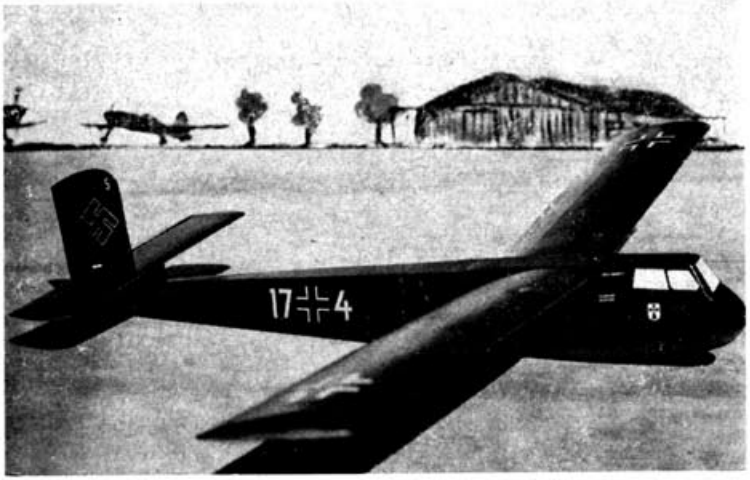
Your TW

BLOHM und VOSS BV40

or

'Das Ugly Glider'

By Jack Headley



THE B-17's droned on, deep into Germany now, but still flying an impeccable formation. In the gun turrets of 'The Saint Jo Belle' wary eyes scanned the skies for attacking fighters. The rear gunner, like the others, saw nothing but enemy fresh air, except for what appeared to be a fly slowly approaching his window. As he leaned forward to get a closer look the fly opened fire . . .'

Maybe this wasn't quite how Dr. Vogt imagined it, but this was the basic idea behind his design, the Blohm und Voss BV40. Studies by the German Air Force had shown that it was almost impossible for their existing fighters to approach close enough to a bomber formation to execute an effective attack. What was needed was an invisible fighter, and the F.W. 190's frontal area of almost 17 square feet wasn't invisible by any means.

Richard Vogt, however, proposed that if sufficient frontal area could be removed, then invisibility could almost be achieved, and that this might be accomplished by eliminating the engine, and using a small glider as a fighter. Certainly unorthodox, the idea was not without appeal, and a design study to investigate the minimum frontal area fighter was made, which resulted in the BV40.

In its final configuration, the armament of the machine was two 30 mm. cannon tucked under the wing roots. A further weapon was proposed – a small bomb, which could be suspended from the glider by a cable, but this was not developed.

After the usual teething troubles with the prototype designs, satisfactory flying characteristics were obtained, and flying speeds of about 300 m.p.h. were achieved. However, time had run out on the Luftwaffe, and the BV40 programme collapsed (together with the Third Reich) before it could be tested in battle.

The Model

We first scaled down the design to make the wing span around 50 in., but it was immediately obvious that certain changes would have to be made. The fuselage as drawn was much too bulky, and the tail surfaces too small. So we moved a line here, and changed a curve there until we had a sensible-looking model. We don't, therefore, claim that this is a true scale model, but rather semi-scale, we tried to preserve the 'feeling' of the original.

Wings

The wings are made in two pieces. First, obtain two sheets of 1/16 in. x 48 in. x 6 in. wide, one reasonably stiff for the bottom surface, and a more pliable one for the upper surface. Pin down the lower sheet, and mark on the rib locations with a ball point pen. Cut out the required number of wing ribs and glue these in place after first gluing down the leading edge. Now fit the main spar to one wing, and when dry, attach to the other wing. The upper surface sheeting can now be fitted. Attach the wing tips, which are made from soft block. Sand the complete wing to the final contours, then reinforce the centre section with gauze bandage securely glued in place. Don't cover the wings yet, as the fuselage fairing has yet to be attached.

Fuselage

This is very simple to construct. Cut out the two fuselage sides from medium soft 3/16 in. sheet, and attach the frames etc. at the locations shown. The nose block, and lower fuselage block are next glued into place, followed by the upper and lower fuselage sheeting. Don't forget to add all the local reinforcing pieces before closing up the structure. Cut a slot in the upper sheet at the rear for the fin. Sand to the correct cross sections.

Tail surfaces

These are made from medium soft 3/16 in. sheet, and should be as light as possible. Sand to the aerofoil shape shown, and sew on the control surfaces. (This applies only to the G.G. set-up, use regular hinges if using servos.) Glue the tailplane to the fin, add the triangular supports, sand well and then glue into the fuselage. The fairing above the wing can be made now, using mainly soft ¼ in. sheet. Glue this to the upper wing surface, and sand to fair in with the fuselage contours.

The cabin-hatch can be made next. The plan doesn't show this too clearly, so our sketch below should be consulted. This hatch gives access to the battery compartment, and can be attached by an internal rubber band.

Finish

We covered the completed model with Jap Tissue, after a preliminary coat of clear dope and a light sanding. A further coat of clear dope, then the colour was sprayed on. All upper surfaces should be green, and the lower surfaces blue. Add the national markings etc. now.

Radio

We didn't show any great details of the radio installation, as everyone has his own pet system. We personally used a Hallco 103 G.G. and this fits quite easily into the fuselage. If G.G. is used be sure to make the control hinges very free. As the nose movement is quite short it is wise to keep the radio as far forward as possible.