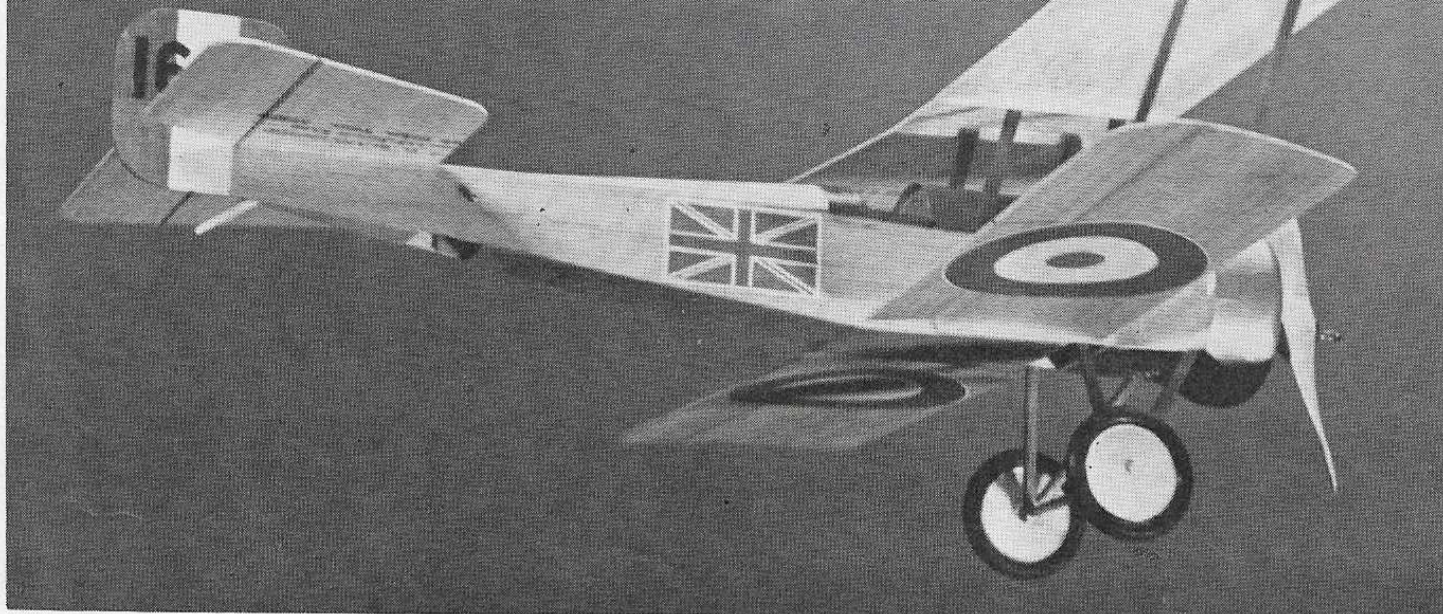


# Peanut Scale Bristol Scout

by John Blankenship



The "Bristol Scout," also known as the "Bullet," has long been a favorite of model builders. This model was designed with the new AMA provisional Peanut Scale event in mind. Peanut Scale is limited to models with a span of 13 inches or less. The color scheme is from the book *Fighters 1914-19* by Kenneth Munson. Check Profile #139 for alternate color schemes and markings.

## Fuselage

Cut the 1/32" fuselage sides from light quarter-grain sheet. Notice that the sides extend forward to the rear face of former B. Glue the 1/16" square vertical stiffeners and 1/32" sheet rear motor peg reinforcement to the inside of the fuselage side pieces. Join the sides, inverted over the top view, with former C and the 1/16" square cross members at stations D and F.

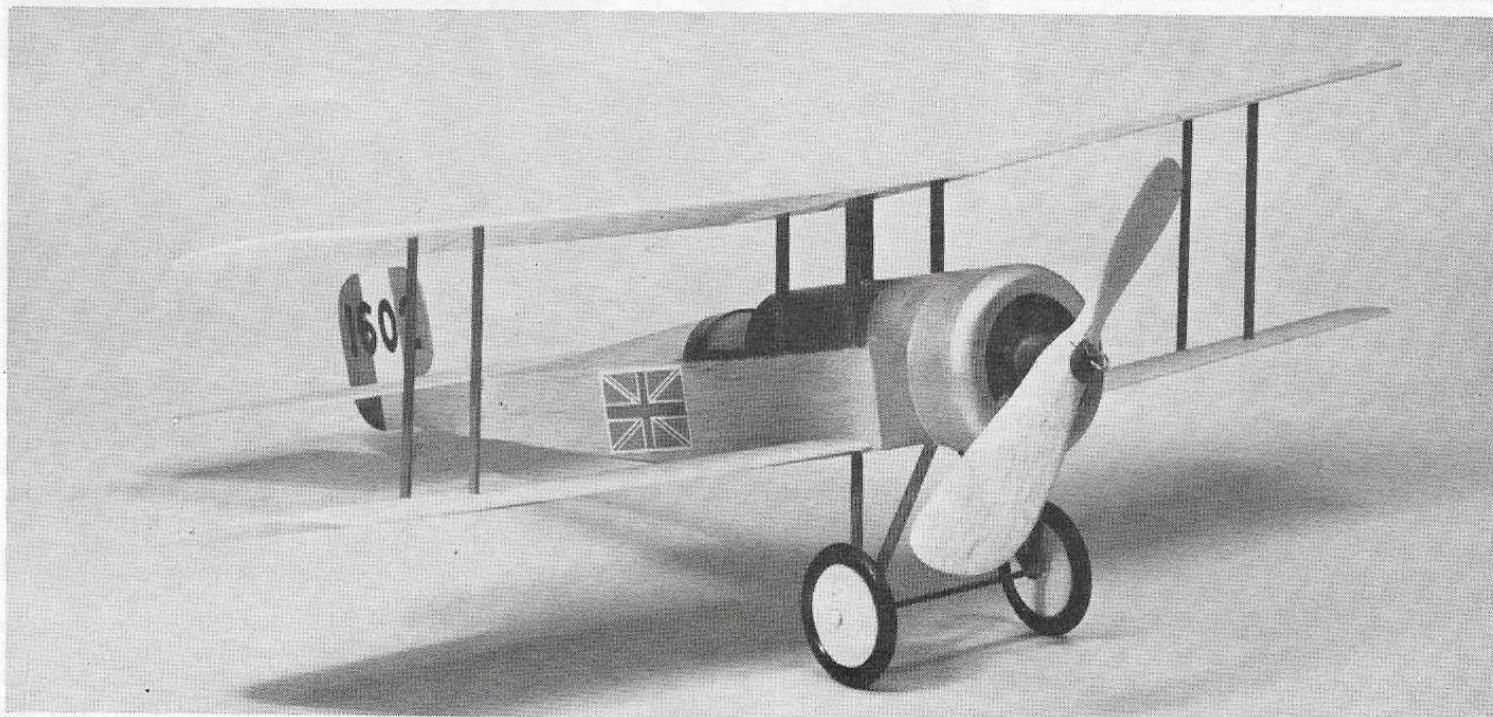
Check alignment while the glue dries. Glue the rear ends together, again checking alignment carefully. Add the remaining 1/16" square cross members to the rear of the fuselage. Now remove the fuselage assembly from the building board and glue the 1/16"x1/8" center-section struts to the inside of the fuselage sides, using the fuselage side view as a guide for alignment. Careful positioning of the struts at this point will make top wing alignment easy. Now add the remaining formers.

Pick a flexible piece of 1/32" or 1/64" sheet for the ring around cowl formers B and D. If 1/32" is used, sand down the thickness. Wrap carefully around the cowl formers and glue in place. Now glue the front cowl piece A in place, and when dry, sand the front radius. The top rear fuselage is covered with flexible 1/32" sheet,

sanded down, or 1/64". Bind the .015 dia. music wire landing gear strut to the 1/16" square cross member at station D with cotton thread. Now the 1/32" bottom sheeting can be added, with the grain running crosswise to the fuselage. Leave the opening for rear motor access. Cut the tailskid from a flat toothpick and glue in place.

Now the cowl side formers J-1 and J-2 can be added. Cut the cowl cover pieces and fuselage sheet pieces S-1, S-2, S-3, and S-4 from white bond paper. Bend the tabs in slightly on S-3 so that they go inside the center-section struts. Glue the cowl cover and fuselage pieces on. Cover the balsa ring around the cowl with a piece of the bond paper to give a uniform finish.

Above: Attractively trimmed, a realistic WW-I. Below: Adequate prop area delivers the thrust.



Assemble the landing gear V-struts and glue in place against the .015 dia. music wire strut with the 1/16"x1/8" balsa spreader bar in place. Check alignment carefully while the glue dries. W.C. Hannan or Williams Bros. wheels give an authentic appearance to the model. Bush the wheels with 1/16" dia. O.D. aluminum tubing and mount with straight pins for axles. Push the pins in carefully to avoid splitting the 1/16"x1/8" spreader bar.

The fuselage is most easily painted at this point. The majority of *Scouts* were clear doped only, resulting in a cream or yellowish color. Follow the same procedure on the model, using color dope for trim only. Avoid warpage by using thin, well plasticized dope. The cowl is silver, and the top fuselage sheeting pieces S-3 and S-4 along with the center-section and outer wing struts and landing gear struts are brown to simulate the dark natural wood finish.

The Union Jack insignia on the fuselage sides can be painted with a draftsman's ruling pen, a small brush, some thinned dope (or Polly S paint) and a few hours

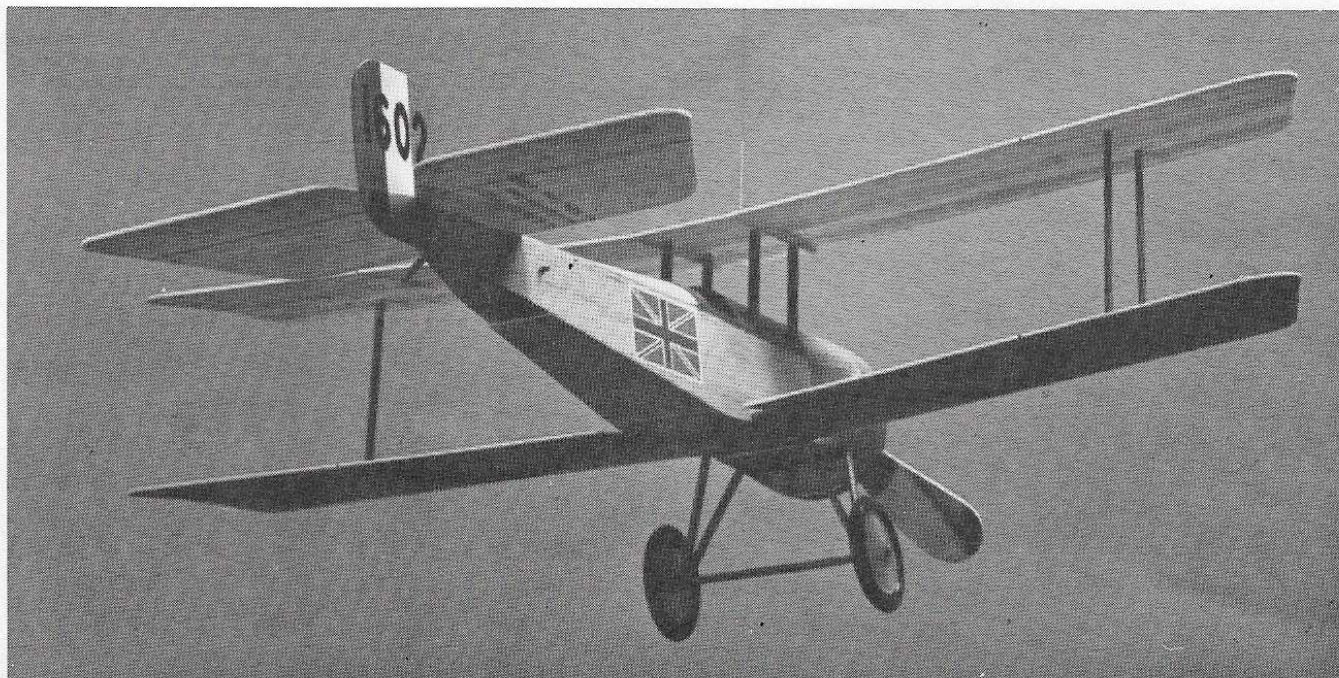
ing. The large numbers and elevator hinge line are applied with black ink. Mount the completed tail surfaces to the fuselage.

### Wings

Cut the wing panels and top wing center-section from 1/32" sheet. Gently bend the panels to shape by curling with the fingers. A light coat of dope on the underside will help. Glue the center-section sheet to the 1/16" ribs in place over the plan. The center-section sheet and outer panels join along the center of the 1/16" rib. Carefully sand the inner end of the wing panels for a good close fit with 3/8" dihedral under the tips and glue up the top wing assembly. Glue the ribs to the inner end of the lower wing panels.

Apply aileron outlines and cockades before mounting the wings. You may want to use your own favorite method to apply the cockades; ready-made decals may be available in the correct size or cut sheet decal can be used. I used the following procedure.

John feeds Bristol to the summer air. A quiet type ship for neighborhood fields, gymnasiums. Built light, turns in good flight performance.



Sheet wing surfaces, sheet tail, siding. Small in size and simple in concept, yet the aircraft captures the age with its WW-I planform. Good ship to try in indoor meets come winter winds.

time. Outline the white background with the ruling pen and white paint, then brush in the entire rectangular area. With a soft pencil lay out the large cross, outline with the ruling pen and red paint, then fill in with the brush. Next, paint the red diagonal cross with the ruling pen, then fill in the blue triangles in the same manner.

Cut the dummy engine cylinders, sand to a half-round shape, coat with glue, and wrap with thread to simulate the cooling fins. Glue the cylinder heads and nose piece N-1 in place. Paint the entire inside cowl area flat black or dark grey.

### Tail Surfaces

Cut the tail surfaces from light quarter-grain 1/32" sheet. Paint the rudder white, then rule off the red and blue with the ruling pen or masking tape, and finish paint-

FLYING MODELS

A white background the size of the complete cockade was painted with Polly S paint, using a draftsman's compass with a ruling pen point to make the outline accurately. The outer blue band and red center were cut from Cutocolor, which is a thin, self adhesive graphic arts film. Remove the backing paper, position the Cutocolor piece, and press gently in place. The Cutocolor can be removed and repositioned if necessary, but work carefully, as it is easily torn. Once the pieces are positioned correctly, rub firmly all over for permanent attachment.

Trim the center-section struts as needed to attain good alignment of the top wing, and mount the wing permanently. Sand a slight bevel on the lower wing roots to give the same dihedral as the top wing, then mount the lower wings, pinning securely while the glue dries. Next mount the outer wing struts.

### Propeller and Motor

A commercial plastic propeller or the

carved prop shown may be used. Lay out the prop outline on a piece of 1/2" balsa and drill the 1/16" dia. hole for the aluminum tube bushing. Epoxy glue metal washers to the front and rear faces of the hub to absorb bearing loads. A split-ring type lockwasher glued to the front will serve as a free-wheeler latch. Carve the blades to shape and finish with several coats of dope. For smooth flying, balance the propeller carefully. Bend the 1/32" music wire shaft, mounting the prop to a large hardwood thrust button. Be sure to include a couple of small brass washers for thrust bearings. The motor is a single loop of 1/8" flat rubber, 8" or 9" long.

### Flying

Add clay inside the lower cowl opening to bring the balance point to the specified position. Bend the elevators up or down slightly as needed to achieve good glide trim. Some downthrust will be required to control the power flight. A 1/16" shim was required on my model.