

There are several notes I need to provide to aid you with the enclosed package. The original kits used 1/16" balsa. Since I wanted to print these directly on balsa sheet I developed the parts for 1/32" balsa sheet. As a result, some of the parts have been drawn to allow for cross grain laminations. The fuselage formers are a good example. This works fine as long as you are using 1/32" sheet stock.

If you do not have a printer that will allow direct printing on the balsa, consider using the iron on T-shirt transfer paper layouts provided via the [paramodels.com](http://paramodels.com) web site. This material can be printed on any color inkjet printer. You can then transfer the part graphics to balsa sheet of any thickness using a regular clothes iron.

I like to use a removable nose for winding. The parts have been drawn with this in mind. The nose former has been drawn so a removable nose plug can be used. The FrogFlite series of models provides a piece of 1/4" balsa for the nose block. The piece of balsa had to be cut to shape and then sanded to the nose profile. A template has been provided to aid cutting the nose block to the shape of the nose.

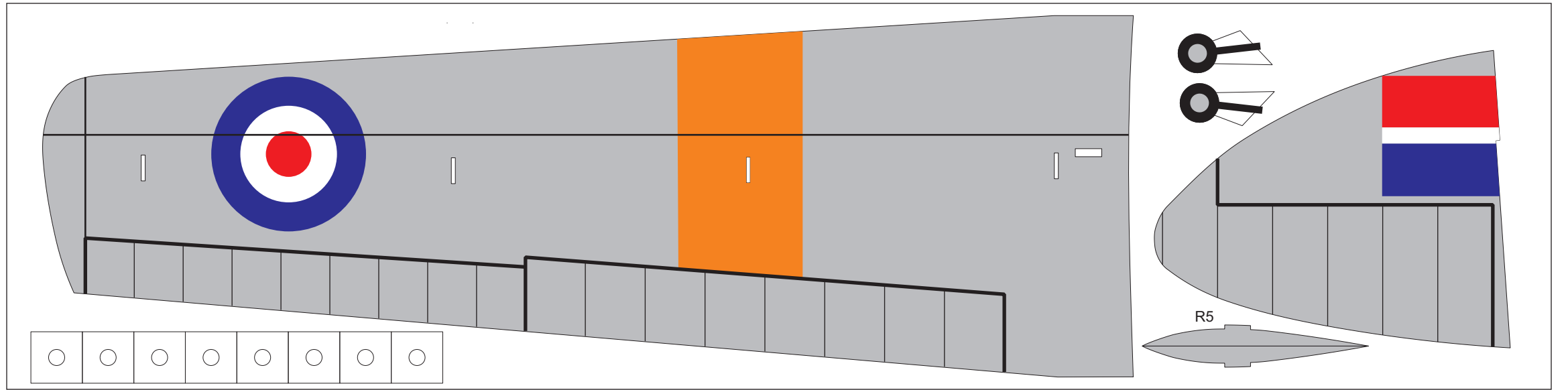
The kit included reinforcements for the rear motor peg. The parts in this package include the same rear motor peg reinforcement parts. The only difference is two sets of those parts are included to allow for models build from 1/32" balsa were parts are laminated to be 1/16" in thickness. This has proven to be plenty strong for a fully wound motor of 1/8" Tan rubber. A piece of 3/32" OD aluminum tubing is used for the rear motor peg.

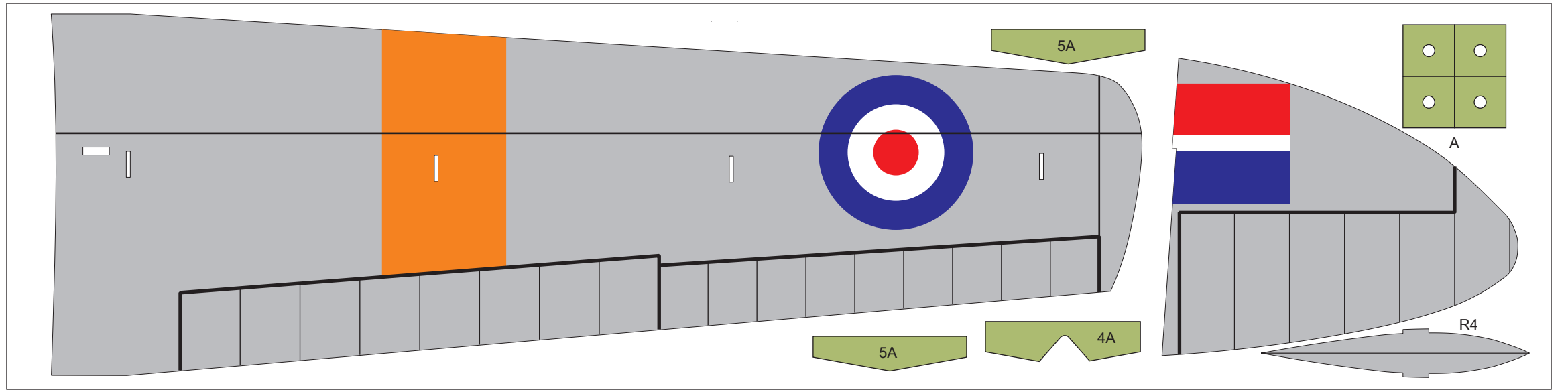
A few minor structural changes were made for the reproduction model. Some supports were added to the fuselage formers where the wing attaches. This improves the wing attachment strength and alignment.

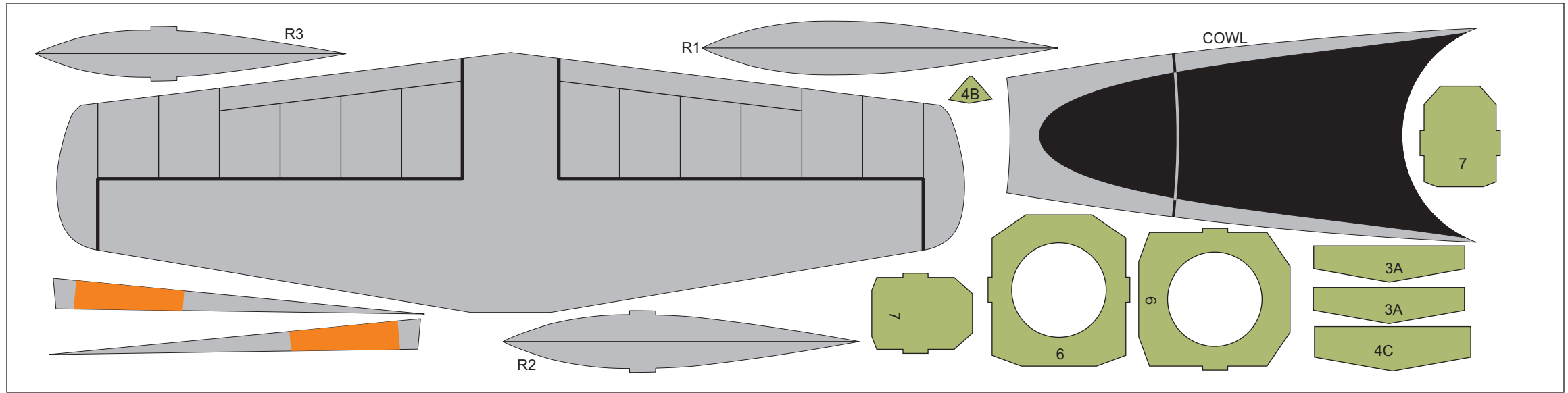
The markings used in the original Chipmunk kit were retained for this reproduction package. Some enhancements are included. For example, the original kit parts only had one color applied to the balsa sheets. Where the kit left the balsa bare the appropriate color as shown in the box art was added to the reproduction model parts.

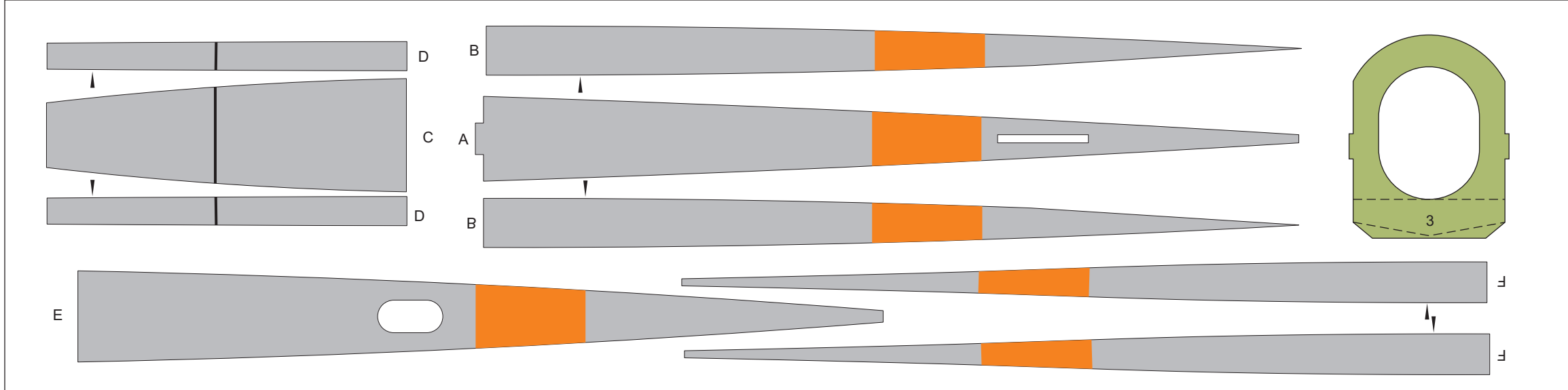
I do hope you build and enjoy a model from this plan package.

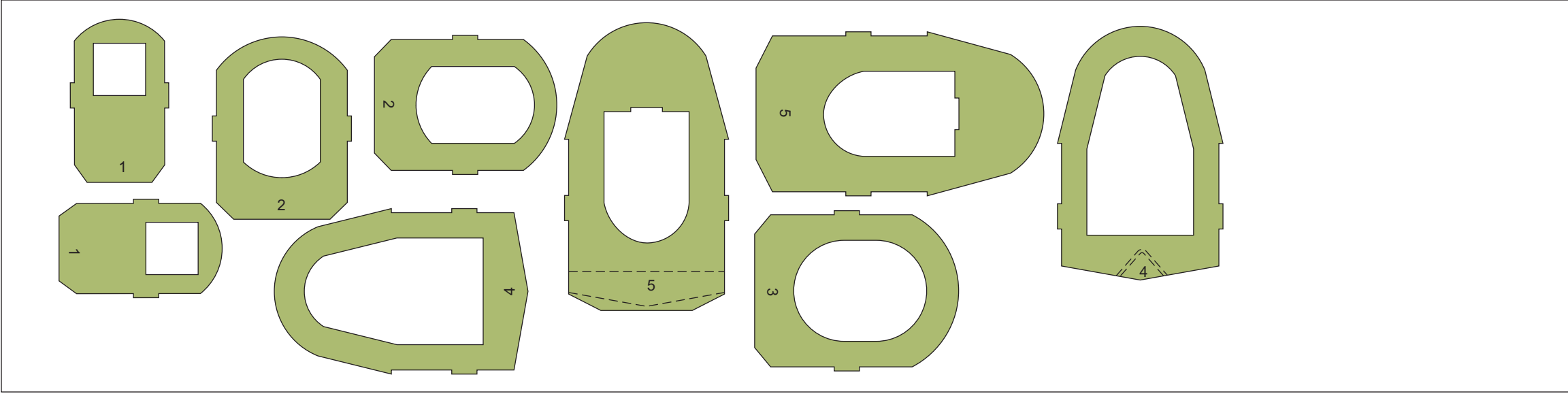
Paul Bradley

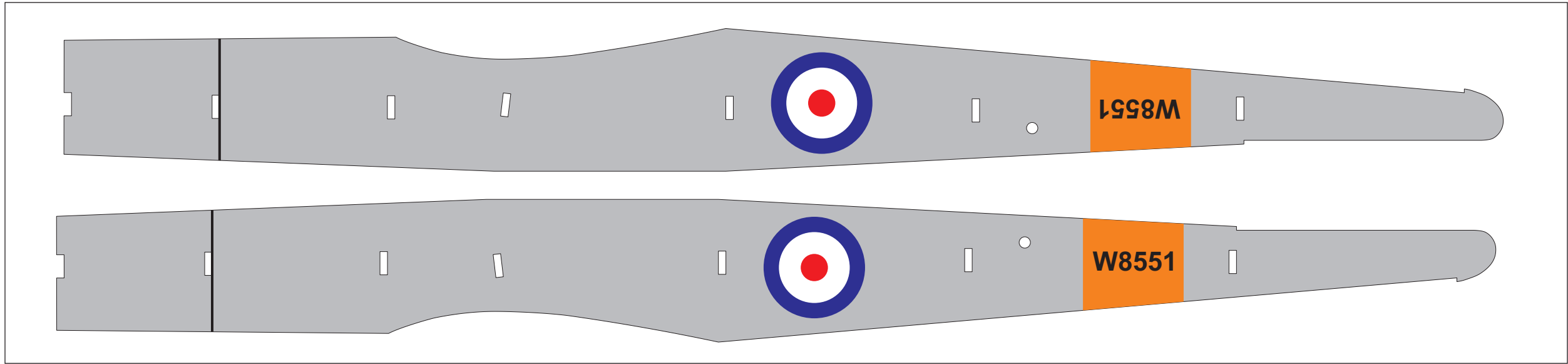


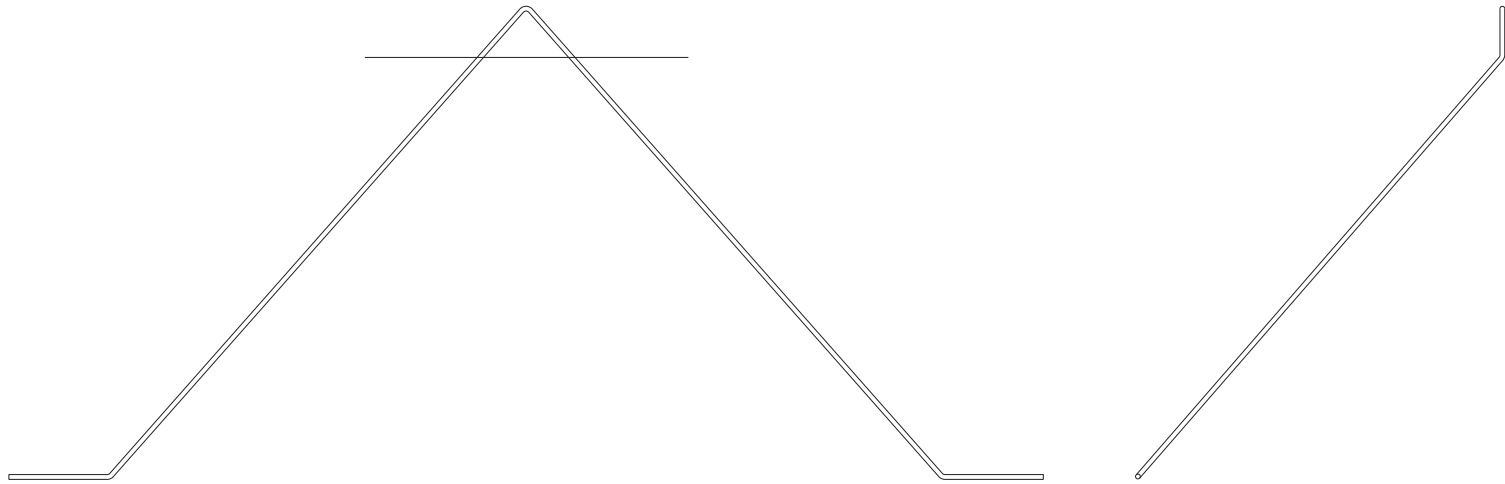




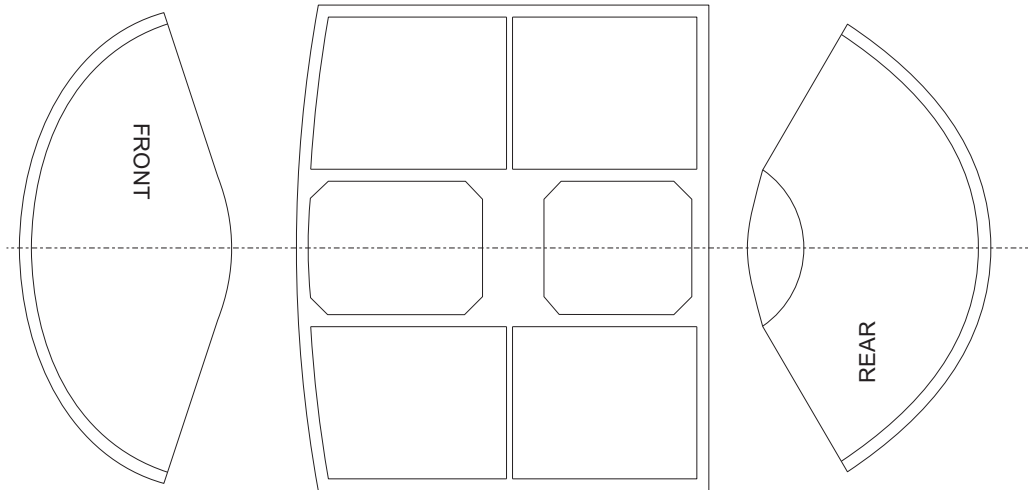




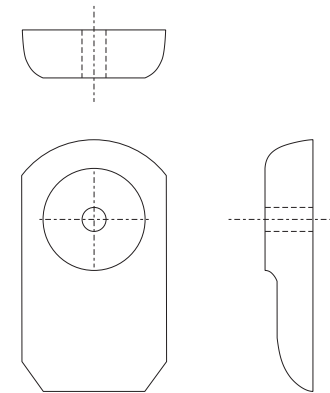




**Landing Gear Pattern - Make from .025 music wire. Use 3/4" Wheels**



**Canopy Patterns**

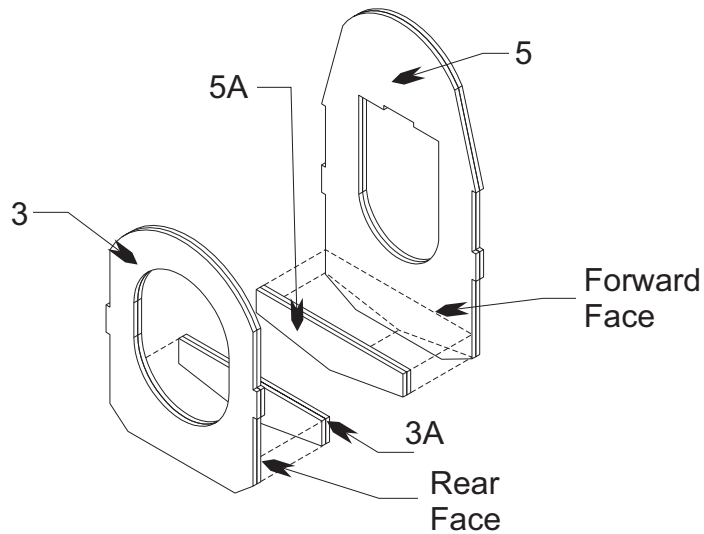


**Nose Block - Make from 1/4" balsa**

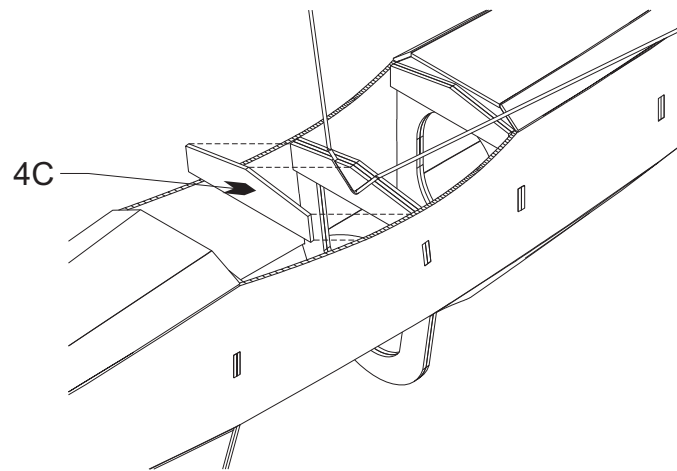
# FrogFlite DeHavilland Chipmunk



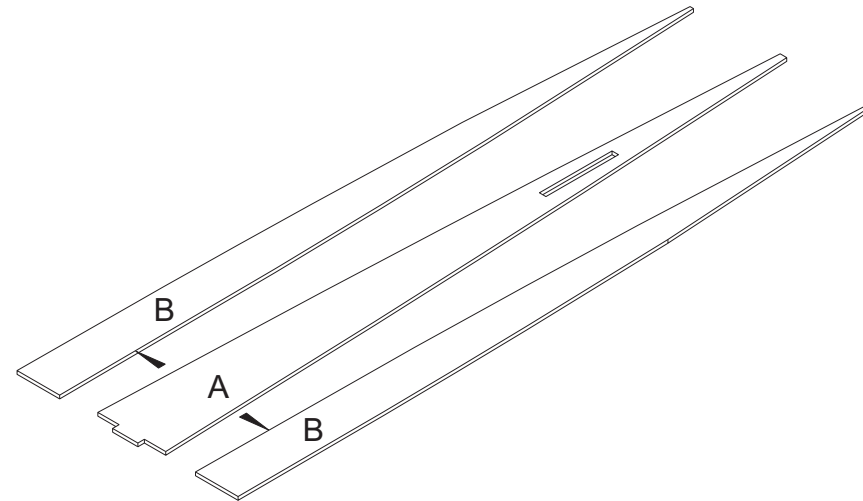
# Modifications to Original



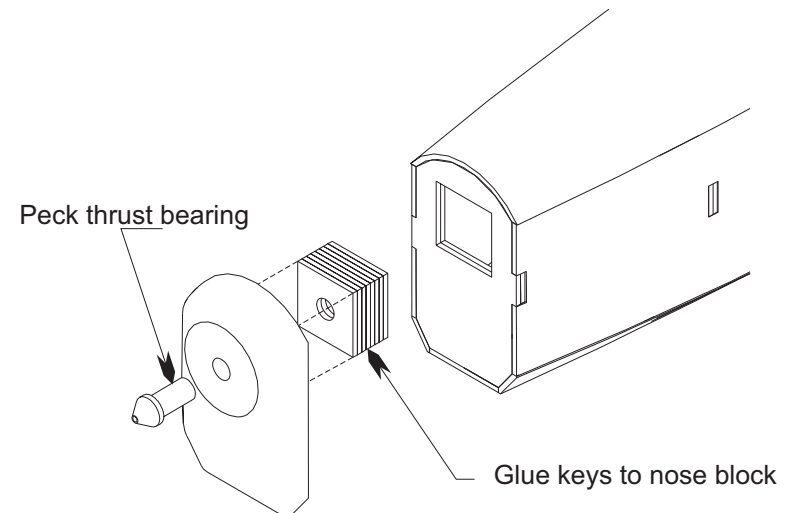
In step 3 of the kit plan add parts 3A and 5A as shown above. These parts make installation of the wing easier and more secure.



Step 17 on the kit plan calls for a piece of scrap balsa to be used to face the landing gear assembly. A piece 4C has been drawn to use in place of scrap balsa.

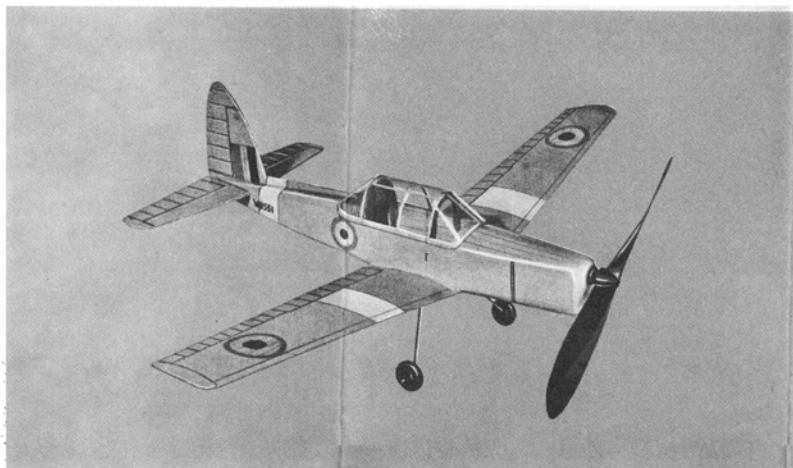


Note that for parts B, D, and F, arrows are printed on the side that should face to the center of the model. Cut these parts out of the sheet as they are installed and be sure to note the side that had the arrow printed next to it.



The nose block is removable for stretch winding as opposed to the fixed block shown on the kit plan. The nose block is made from 1/4" balsa. Glue the laminated key block to the rear face of the nose block.

## FrogFlite DeHavilland Chipmunk

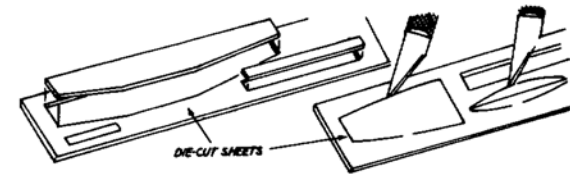
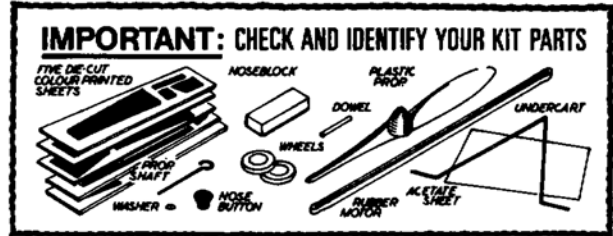


# CHIPMUNK

**QuickBuild SERIES**  
RUBBER POWERED FLYING SCALE MODELS

## FROGLITE KITS

DESIGNED AND DRAWN BY RON WARRING  
MANUFACTURED IN ENGLAND BY:  
BY A. A. HALES LTD. HINCKLEY, LEICS.



Some parts can be pressed straight out of the die-cut sheet. Other parts are held by tags. Free with a modelling knife.

**2** Cement the two doubler pieces to the inside of each fuselage side.

**3** Leave insides of formers 1 to 6 in place - hold with scotch tape.

**4** Assemble fuselage sides on formers 3, 4 and 5 as shown. Hold with pins.

**5** Cement in formers 6 and 7. Pull in and join sides at rear.

**6** Cement tailplane accurately in place on top of the fuselage.

**7** Cement part A in place from notch in former 5 to end of tailplane.

**8** Join fuselage halves at front with formers 1 and 2. Hold with band.

**9** Trim the two B pieces carefully to fit between A and fuselage sides.

**10** Cement the trimmed B pieces in place to complete fuselage rear decking.

**11** Turn fuselage over and cement part E in place from former 5 to rear.

**12** Shape edges of F pieces carefully to fit and cement in place.

**13** Cement part C from former 3 to former 1. Trim and fit part D pieces.

**14** Stick two pieces of cellulose tape across plain side of cowling.

**15** Bend cowling to curve, shape edges to fit and cement in place.

**16** Cement noseblock to former 1. When set, carve and sand to final shape.

**17** Undercarriage mounts behind former 4. Use 4A, 4B and scrap balsa to fix.

**18** Run lines of cement across the bottom of each wing panel and add ribs.

**19** Turn wing panels over and pin down on a flat surface until set.

**20** Cement the wing halves carefully in place on fuselage. Add rib R1.

**21** Cement the fin to the top of the fuselage. Cement on the fin strake.

**22** Cement tailwheel to bottom of fuselage after colouring tyre black.

**23** Cut centre canopy from acetate sheet and cement carefully in position.

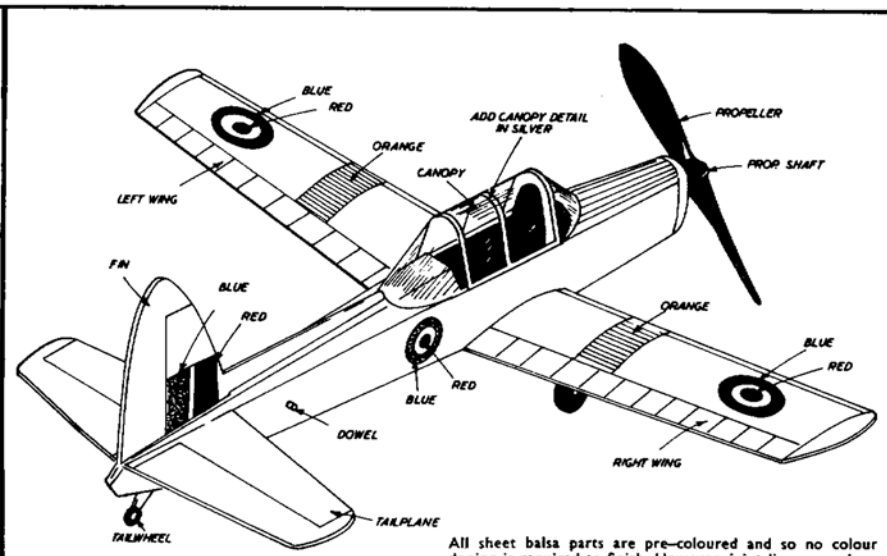
**24** Use pattern to cut front and rear screens, then cement in place.

**25** Make up propeller assembly and cut off surplus propeller shaft.

**26** Bend undercarriage legs forward. Fit wheels (bend up wire to hold).

**27** Dowel through holes in fuselage sides anchors rear of motor.

**28** Balance point check. If model stalls, add more nose weight. If model stalls under power, add packing here. Lubricate motor with castor oil.



# CHIPMUNK

All sheet balsa parts are pre-coloured and so no colour doping is required to finish. However, joint lines may show plain balsa which can be touched up with a coloured ball point pen. Other colour details may be added, if required, with coloured dopes.

# FROGFLITE



HALES

*Quick Build series*  
Rubber Powered Flying Scale Models

# CHIPMUNK

