

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 button can be used. A template has been provided to aid in forming the nose button.

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. 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.

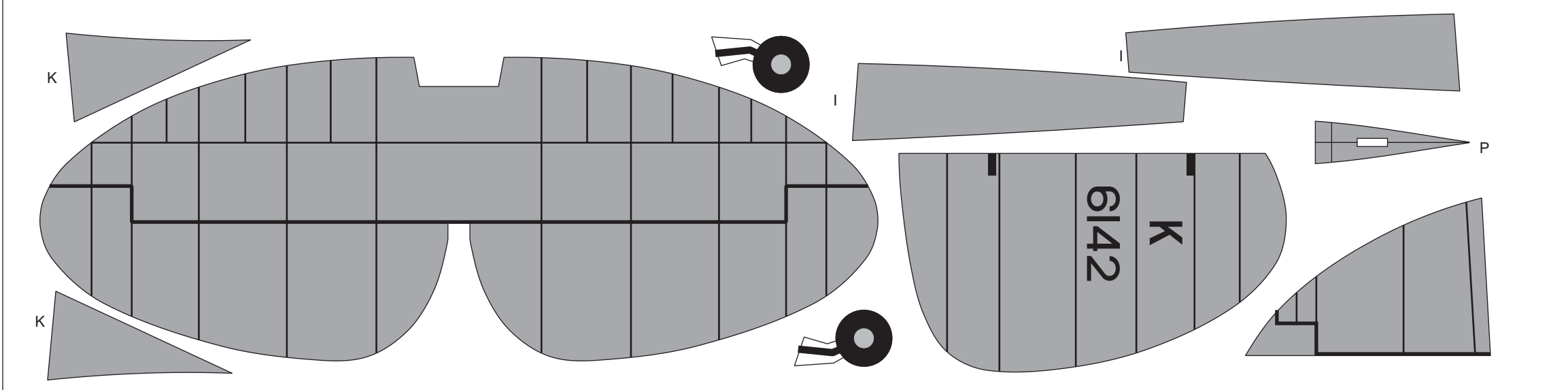
A few modifications to the original kit structure have been included. The original kit used solid blocks on the forward portion of the fuselage top and bottom. These have been replaced with sheet wood parts. That allows the color and markings to be consistent on the model and also helps eliminate a bit of weight. All of the modifications are shown on a supplemental illustration sheets.

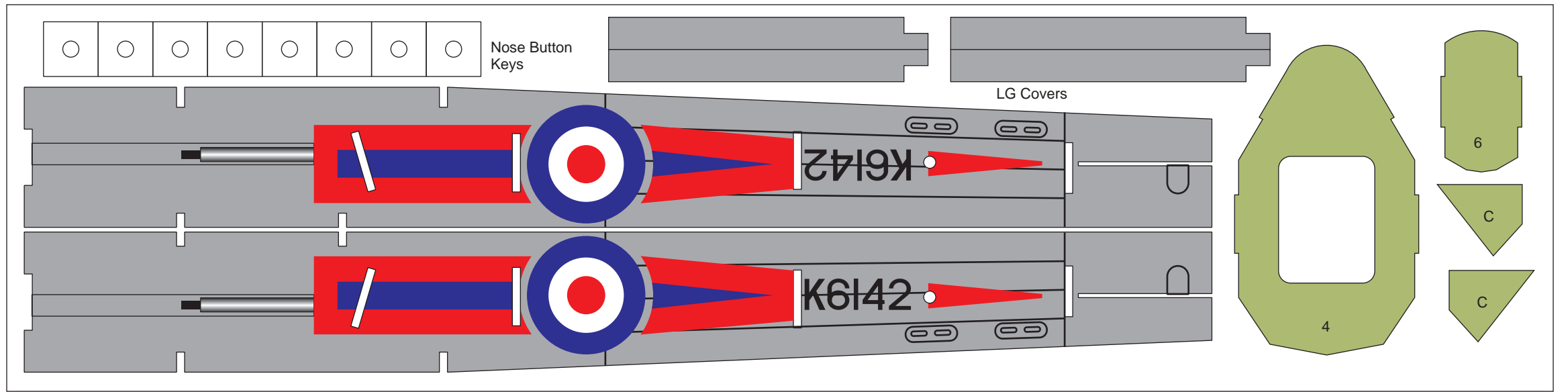
The original kit did not include landing gear leg covers. This drawing package does include them for the gear legs so the finished model will more closely resemble the box art.

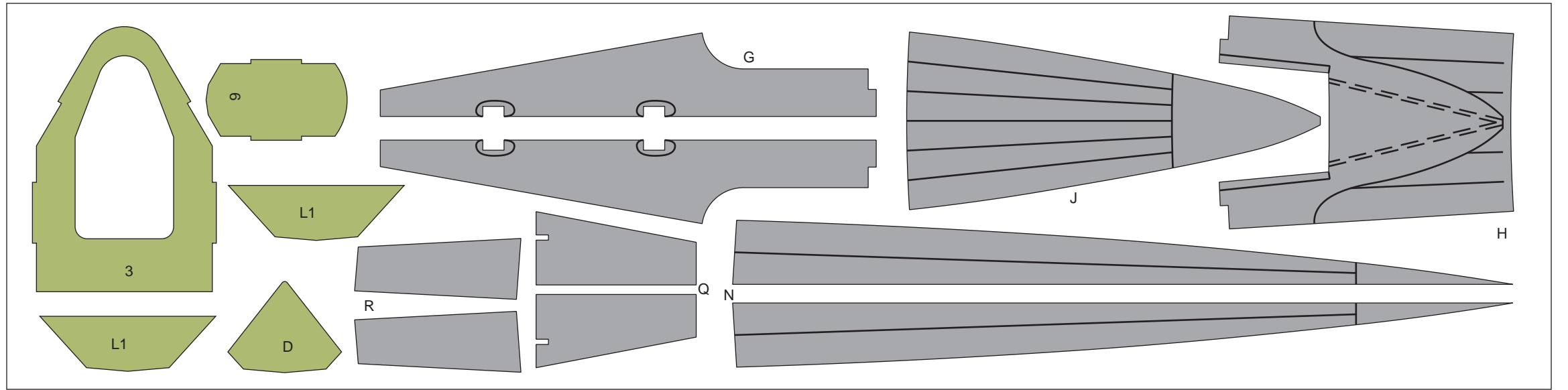
The original kit had markings printed on the balsa pieces with a bare balsa background. This reproduction drawing package uses the original kit markings with color added to the bare balsa areas.

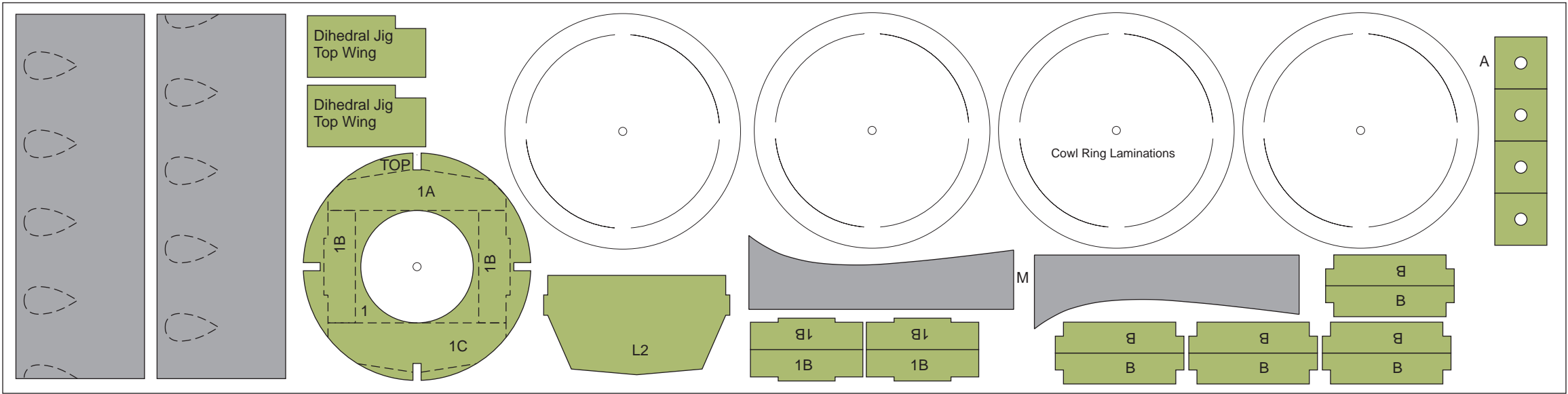
I do hope you build and enjoy a model from this plan package.

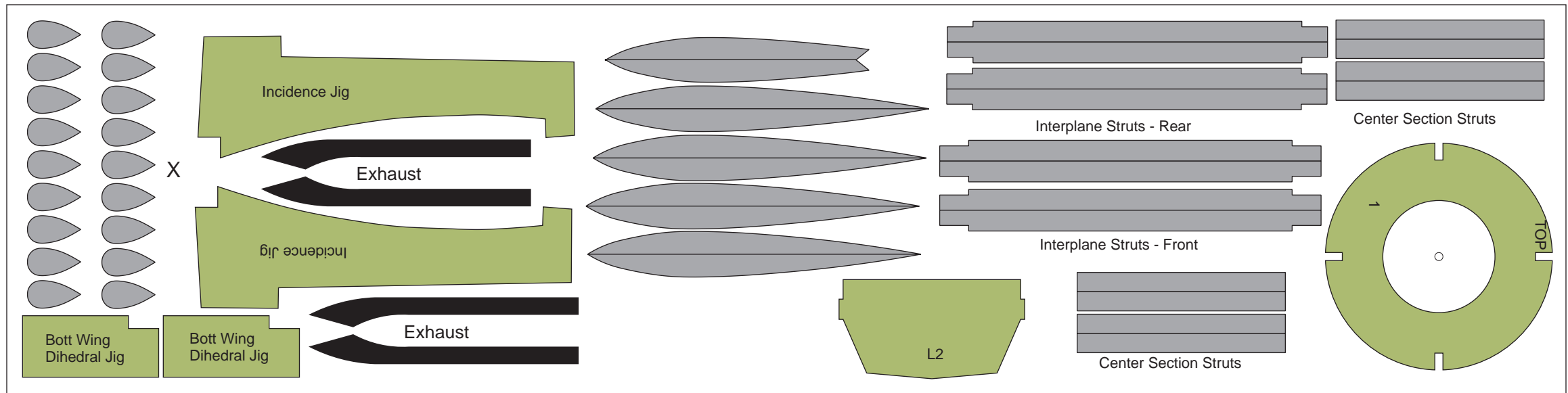
Paul Bradley

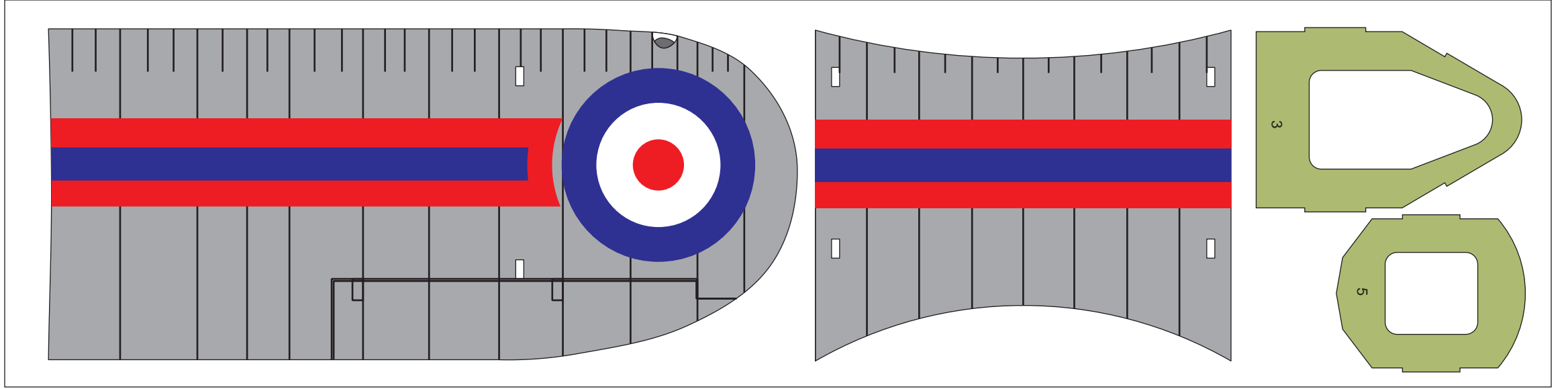


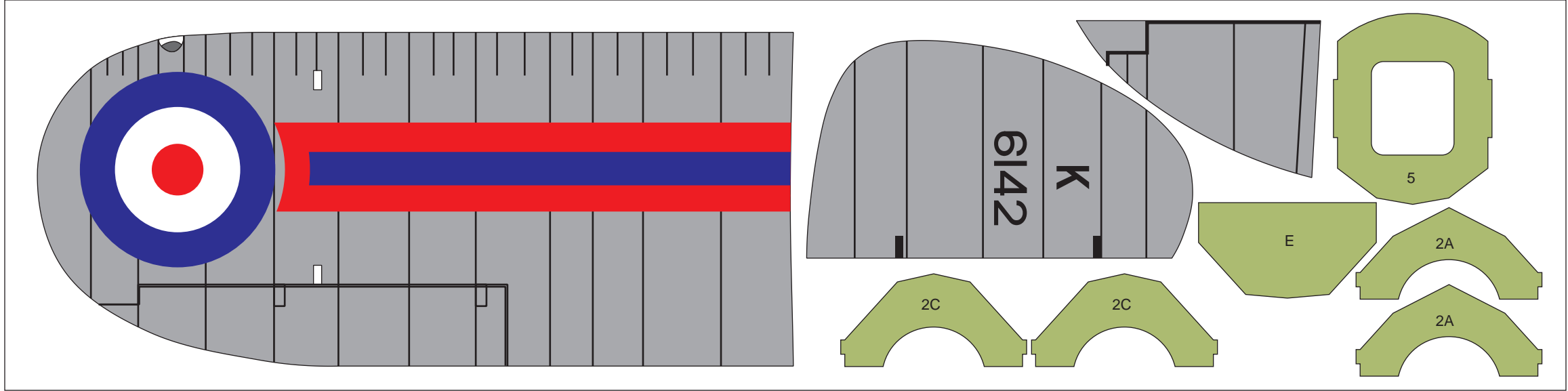




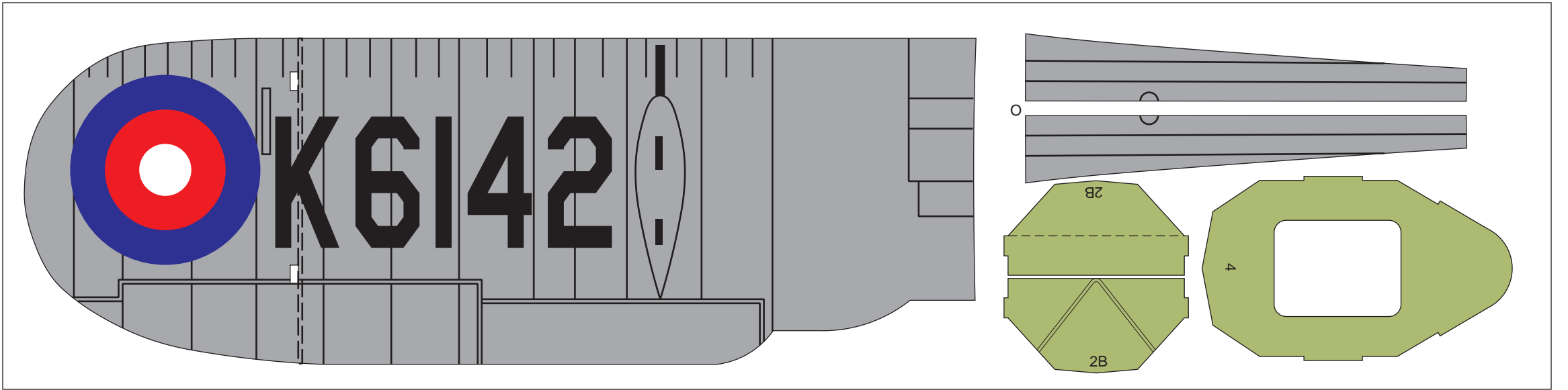


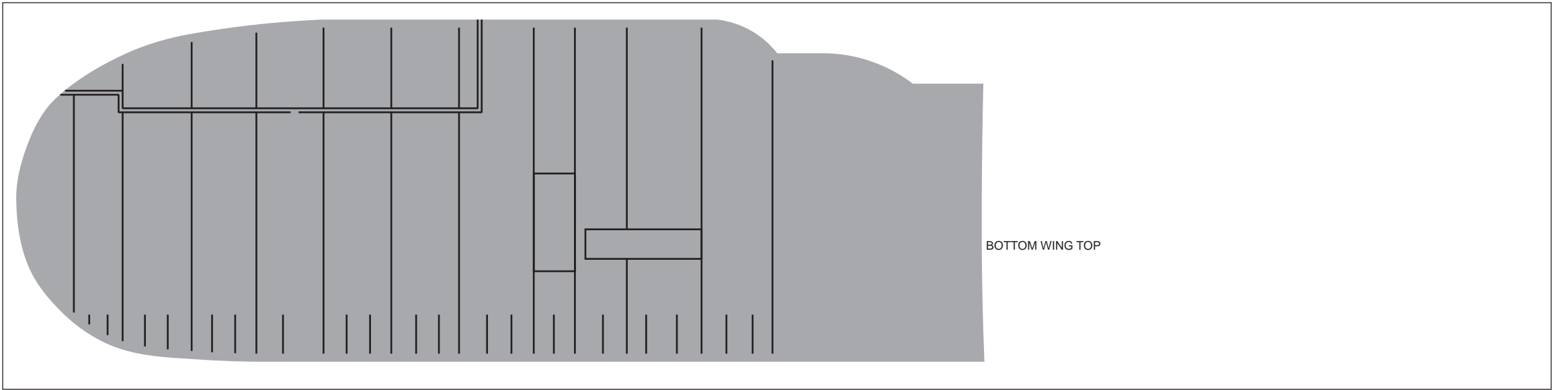


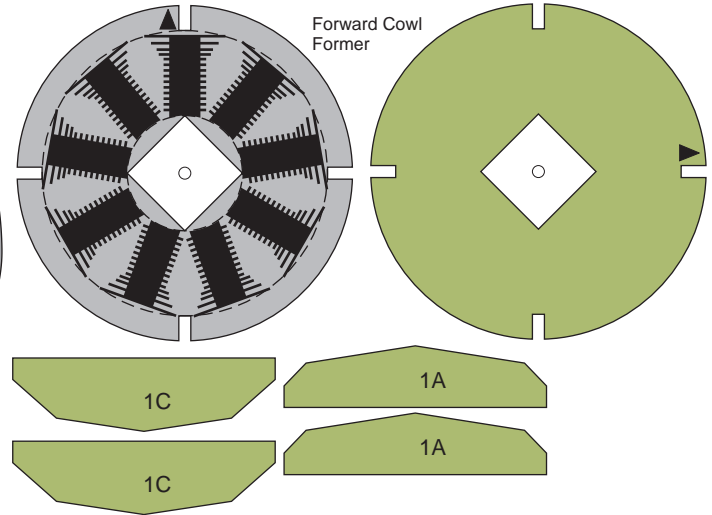
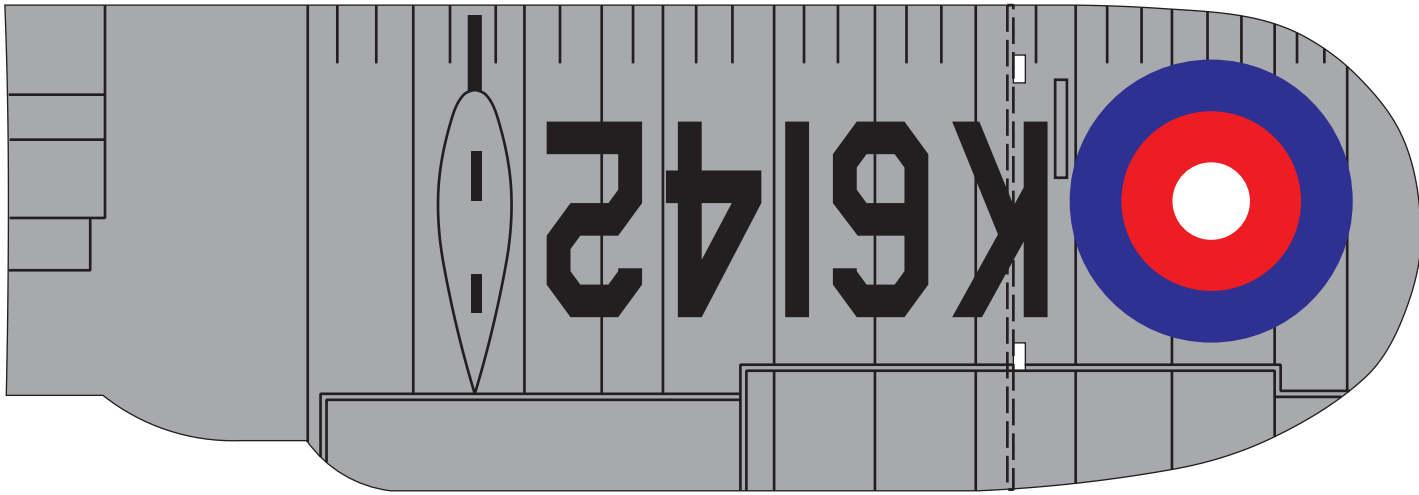


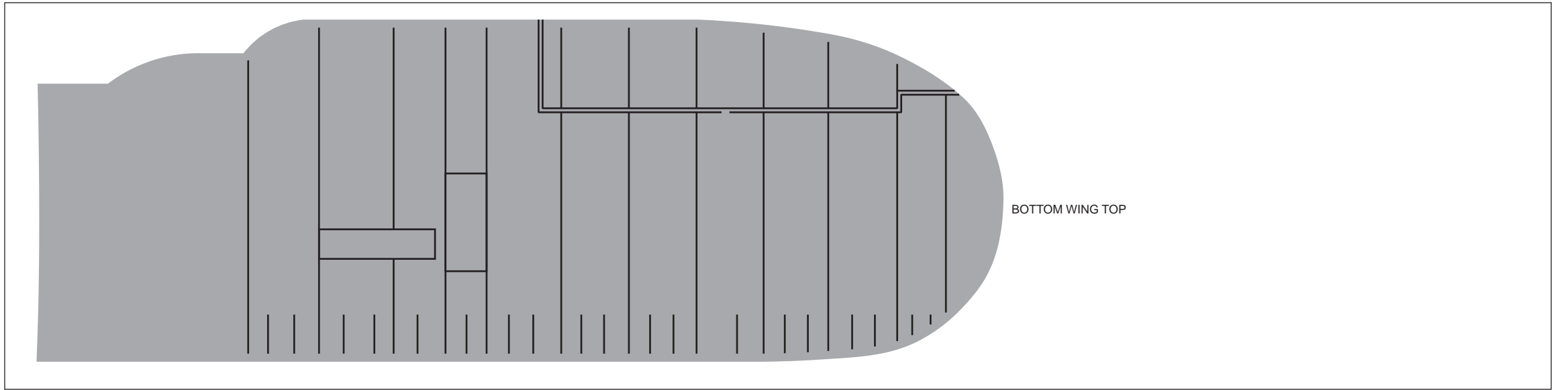


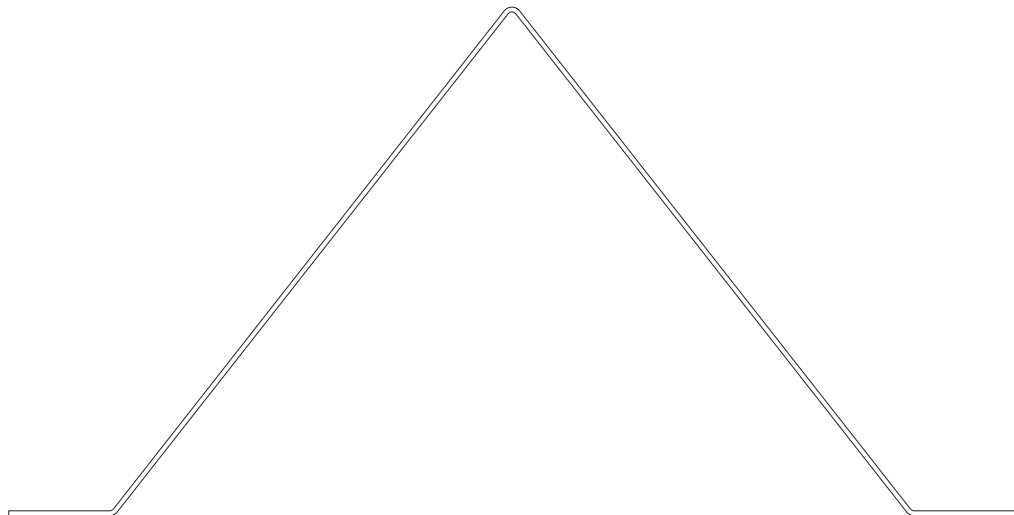




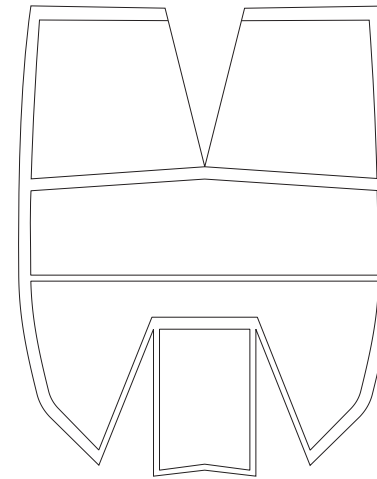




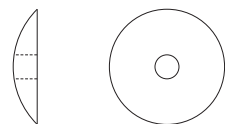




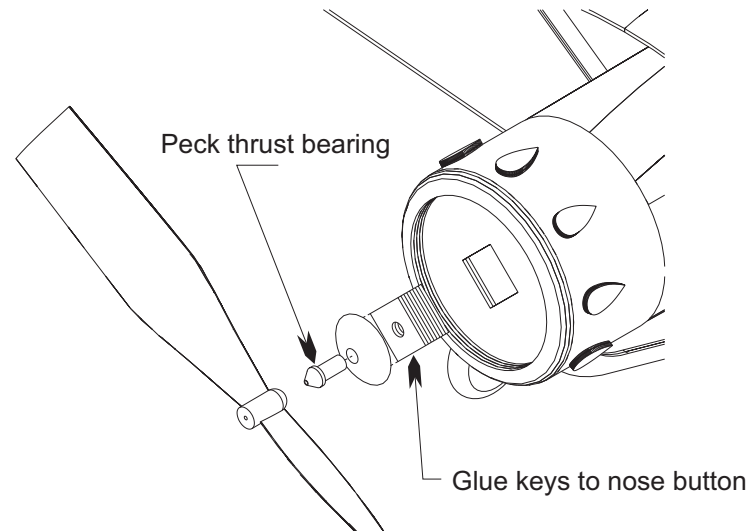
**Landing Gear Pattern - Make from .025 music wire. Use two 3/4" Wheels**



**Canopy**



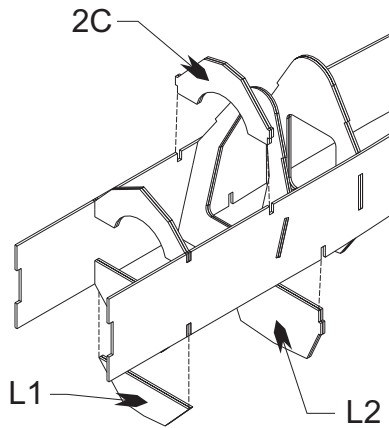
**Removable Nose Button - Make from 1/8" balsa**



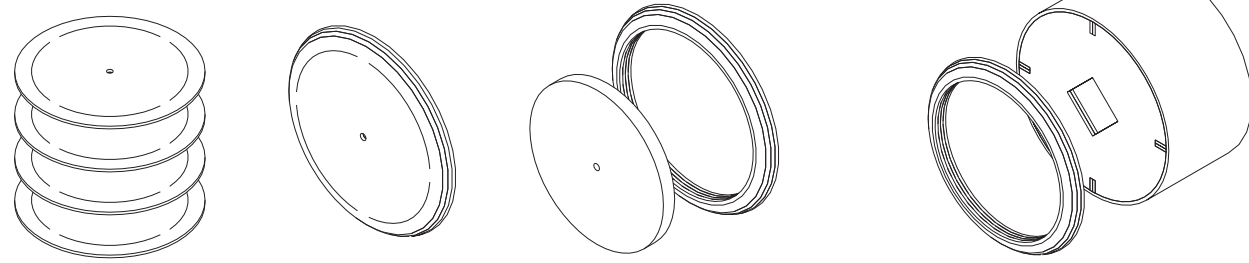
The nose button is removable for stretch winding as opposed to the fixed block shown on the kit plan. The nose button is made from 1/8" balsa. Glue the laminated key block to the rear face of the nose button.

# FrogFlite Gloster Gladiator

# Modifications to Original - Page 1 of 2

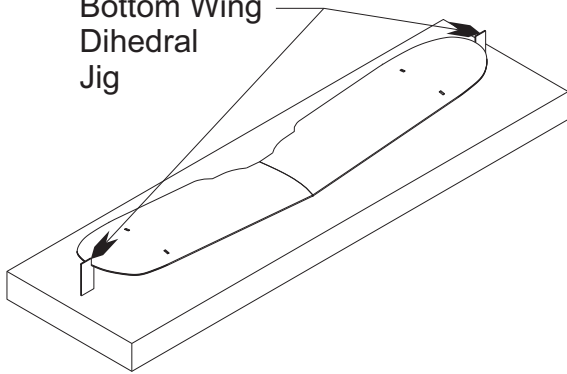


Supplement step 2 on the kit plan with these assembly steps. Former 2C has been added to the model and the rear former L shown in step 13 has been modified. It is now L2 and is installed as shown. The forward former L is now L1 and is glued to the rear face of former 2B. Also, the shape of formers 2A and 2B have been modified.

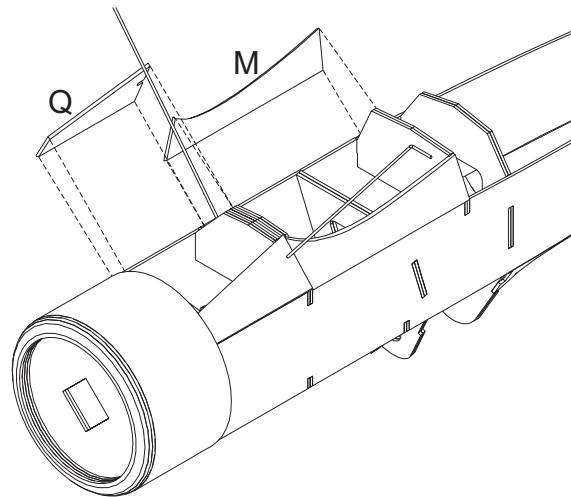


In step 6 of the kit plan, the forward cowl ring is made from 4 laminations. Glue each lamination at 90 degrees to the other. Do not cut the inner diameter all the way around. Stop where the printed lines have stopped. The outer diameter should be cut a bit outside the printed line. When the glue is dry mount the laminated block on something like an electric drill. With the drill running sand the outer diameter of the assembly to match the outer diameter of the formed cowl. While the block is rotating also sand the forward edge to the rounded shape. Once the sanding is complete, remove the mandrel. Finish cutting the inner diameter at the four locations created by the printed lines. The forward cowl ring can now be glued to the cowl. It will need to be painted.

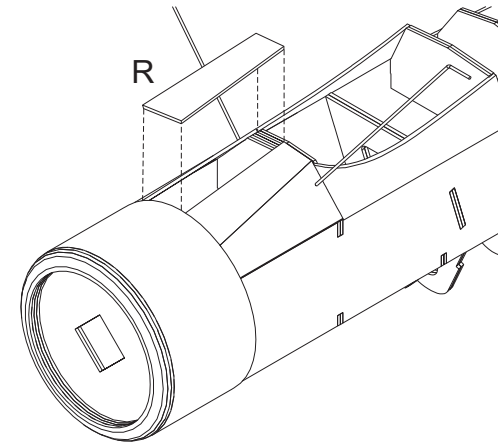
Bottom Wing Dihedral Jig



In plan steps 13 and 14, do not add pieces L and M to the bottom wing. Just glue the panels together using the bottom wing dihedral jigs to set the dihedral angle.



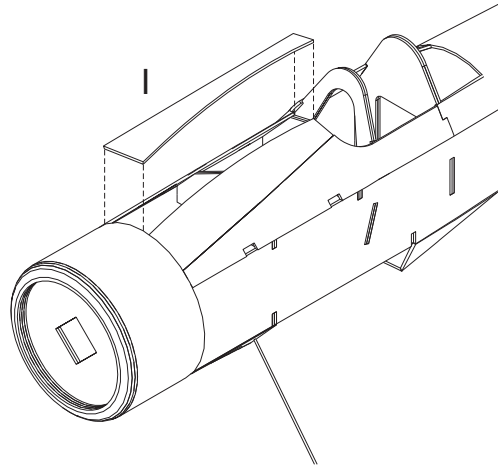
In plan step 15 do not use the dihedral jig pieces as shown. Use parts Q. Also, glue parts M to formers L1 and L2. Be sure to bevel the edges of these parts according to the angle formed when placed on the model.



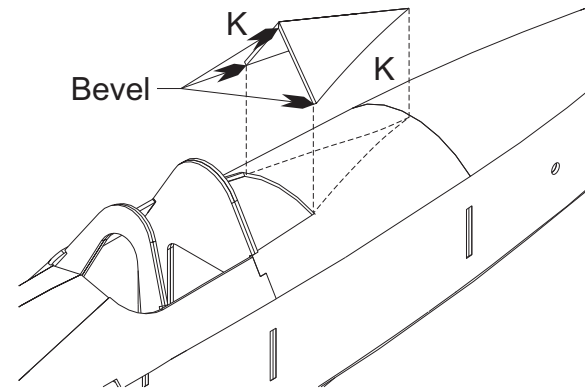
Replace step 16 with this assembly step. The solid balsa block has been replaced with sheet parts R. This makes it possible to have printed graphics in these areas. It also saves some weight.

## FrogFlite Gloster Gladiator

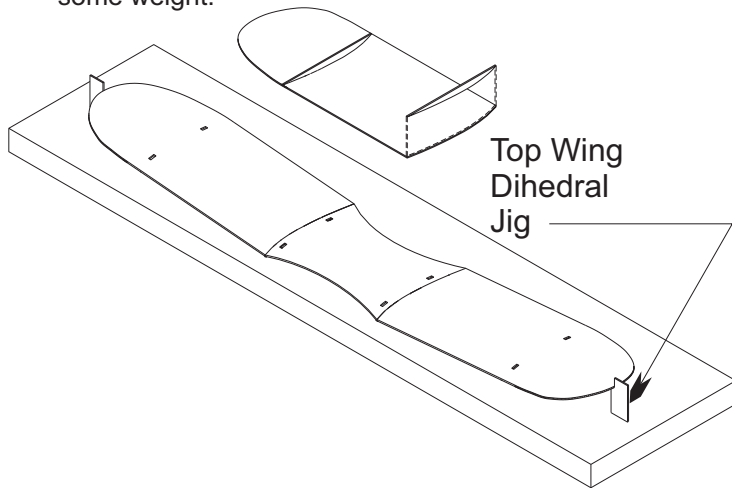
# Modifications to Original - Page 2 of 2



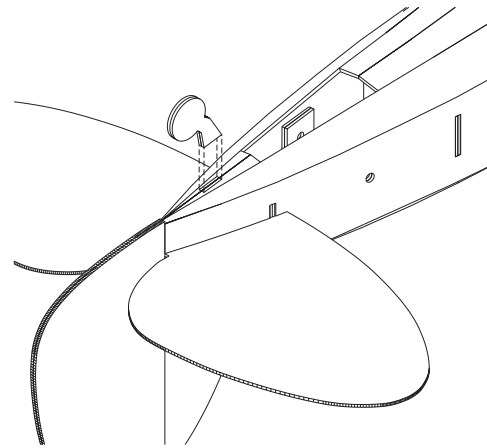
Replace steps 17 and 18 with this assembly step. The solid balsa block has been replaced with sheet parts I. This makes it possible to have printed graphics in these areas. It also saves some weight.



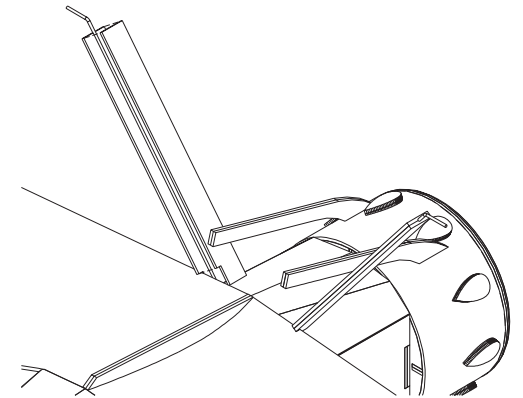
The kit plan does not specifically show the installation of canopy parts K. They are identified on the 3D illustration but not mentioned in the assembly steps. Parts K should be installed before the plastic canopy as shown.



For kit plan steps 23 through 26 the top wing is built and assembled on the model. It is felt that assembling the top wing completely before it is installed on the model is much easier and accurate. As a result extra ribs have been drawn for use on the outer wing panel roots when forming the dihedral joints. Disregard the plan references to butt strap pieces. They are not used. Be sure to use the top wing dihedral jigs.



Plan step 22 calls for the tail wheel to be installed. The tail wheel has been modified to be consistent with the other models in the Quick Build series. This is easier to install and should be more robust. A placement guide has been printed on part P.



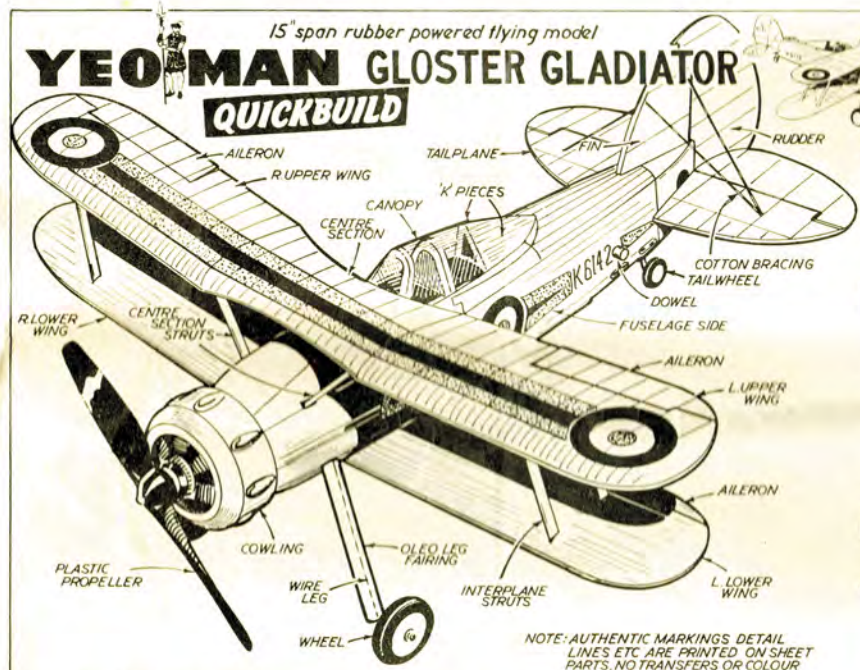
The kit plan illustration of the model shows landing gear covers. They were not included in the kit. Landing gear covers have been included in the reproduction model part set and are installed as shown.



# YEO MAN GLOSTER GLADIATOR

15" span rubber powered flying model

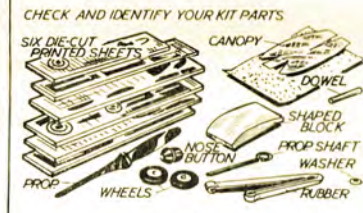
## QUICKBUILD



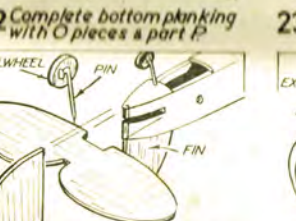
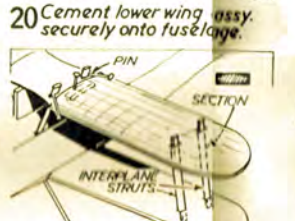
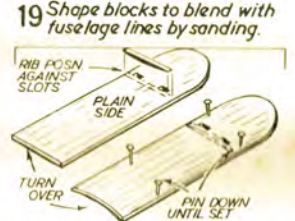
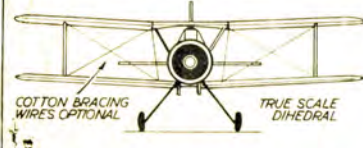
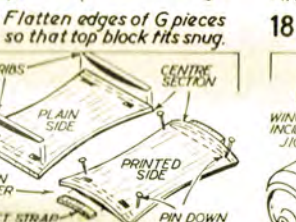
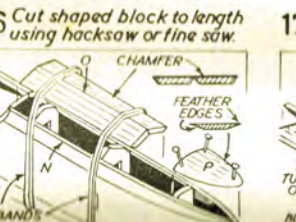
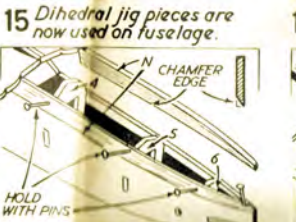
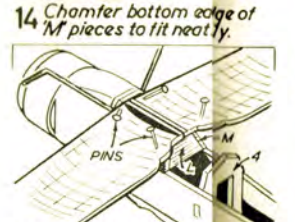
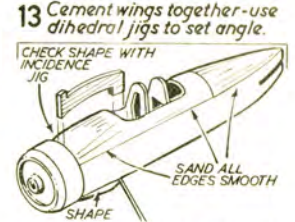
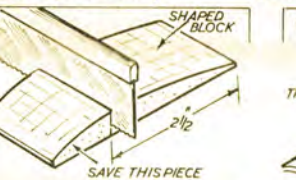
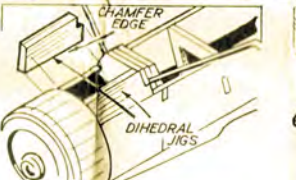
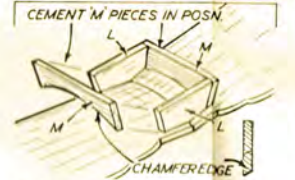
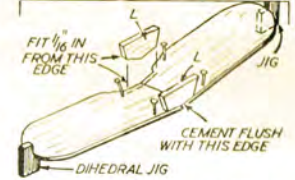
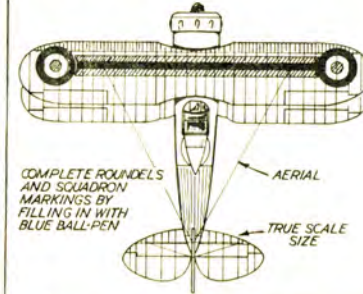
NOTE: AUTHENTIC MARKINGS, DETAIL LINES ETC. ARE PRINTED ON SHEET PARTS. NO TRANSFERS OR COLOUR DOPING REQUIRED.

Start construction here and follow assembly stages in correct order through to step 30

- Assemble sides on formers 3 & 4. Cement A pieces in place. *TAKE CARE NOT TO CRUSH FORMERS*
- Cement formers 2A & 2B in slots in sides. Check line-up. *THESE FIT SLOTS*
- Add formers 5 & 6. Pull in sides & join accurately at end.
- Prepare former 1 as shown & cement to front of fuselage. *CEMENT TO NOSE*
- Cowl front is assembled on four B pieces. Cement well. *TAKE CARE NOT TO CRUSH FORMERS*
- Join cowl ring with tape then bend round a fit. Add boss. *WIRE LEGS*
- Cement undercart to 2B add C & D pieces. Anchor with E. *CEMENT WELL*
- Chamfer bottom edge of G pieces & cement to fuselage. *RUBBER BANDS*
- Cellulose tape strips on back prevent splitting when bent. *TURN OVER BEND TO CURVE*
- Chamfer edges to fit neatly then cement on permanently. *HOLD WITH PIN & BAND UNTIL SET*
- Feather edge of J piece to make a neat joint when fitted. *TURN OVER*
- Cement ribs to lower wings then pin down until set. *TURN OVER PIN DOWN*



YEO MAN KIT MANUFACTURED IN ENGLAND BY A.A. HALES LTD., POTTERS BAR, MIDDLESEX.



### TRIMMING & FLYING

- Drop motor through fuselage & anchor with dowel. *DOWEL*
- Bend up ailerons. *BEND UP AILERONS*
- Bend up ailerons. *BEND UP AILERONS*
- Until a good glide trim is obtained. *UNTIL A GOOD GLIDE TRIM IS OBTAINED*
- Correct glide. *CORRECT GLIDE*
- Give too much weight. *GIVE TOO MUCH WEIGHT*
- Stall - not enough weight in nose. *STALL - NOT ENOUGH WEIGHT IN NOSE*
- Fly only in calm weather. *FLY ONLY IN CALM WEATHER*
- Fine trimming is done by bending elevator slightly. *FINE TRIMMING IS DONE BY BENDING ELEVATOR'S SLIGHTLY*
- Nose button. *NOSE BUTTON*



# FROGFLITE



HALES

# GLADIATOR

*Quick Build series*  
Rubber Powered Flying Scale Models

