

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. My printer will handle up to 1/20" sheet, but I find 1/32" is a little easier to handle in the printer. As a result, some of the parts have been drawn to allow for cross grain laminations. The fuselage formers are a good example. The fin as also been drawn with a mirror image to allow for markings on both sides. This works fine as long as you are using 1/32" sheet stock.

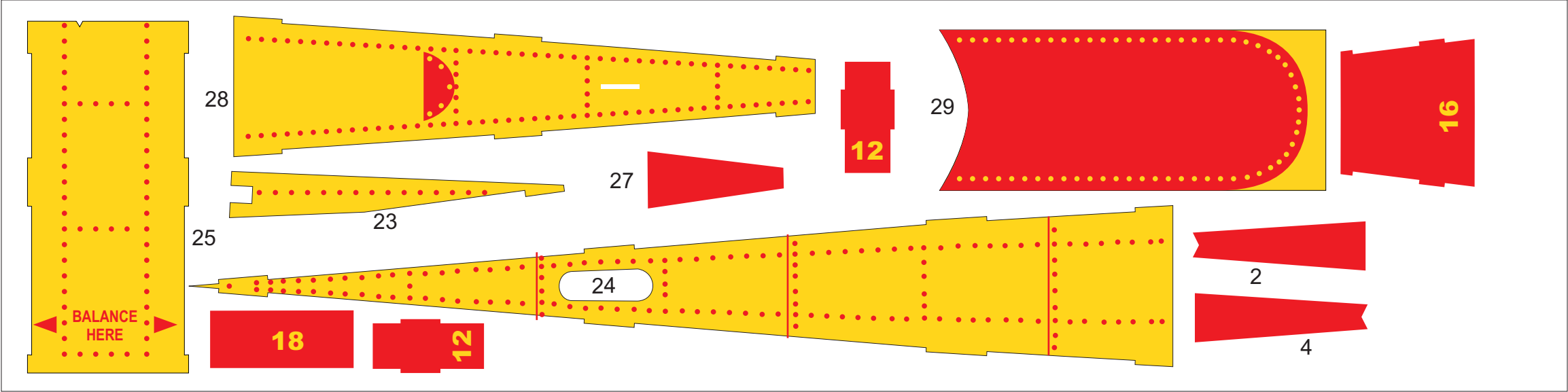
I like to use a removable nose for winding. The parts have been drawn with this in mind. An un-colored nose former has been drawn that is to be part of the fuselage structure. A colored nose piece has also been drawn. The piece when backed with a piece of 1/64" plywood becomes the removable part. The nose former is located to allow the removable piece to nestle inside the fuselage sheeting. I like to use a Peck thrust bearing for 1/32" prop shafts in the removable nose piece. Please see the diagram that comes just before the scanned kit plan in this package.

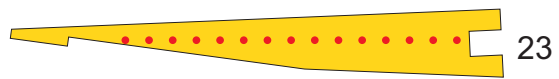
When using 1/32" sheet for the fuselage sides, I was concerned about the load of a fully wound motor on the rear motor peg. I like to use a piece of 3/32" aluminum tubing for the rear peg. Makes holding the model in a winding stooge very easy. To create a bit more strength at the rear peg, I apply a 3/8" diameter disk of plywood to the inside of each fuselage side at the peg location. This has proven to be more than adequate for a fully wound motor of 1/8" Tan II rubber. A piece of 3/32" OD aluminum tubing is used for the rear motor peg.

Some of the original kits came with a wing that was one piece with the dihedral steamed in. To duplicate the flat center section I have drawn the wing in three parts. The center section gets built first by placing a rib on each end. A rib is then glued to the root of each wing panel. When the glue has dried (I prefer the old style cellulose based glues for these models), the wing panels are glued to the center section. I use one inch of dihedral under each tip. When the wing assembly is attached to the fuselage, the ribs should just slide over the fuselage sides with the center section sheeting lying on the top of the fuselage sides. Please see the diagram that comes just before the scanned kit plan in this package.

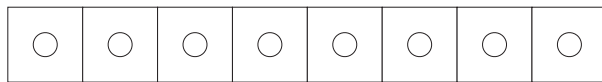
I do hope you build and enjoy a model from this plan package.

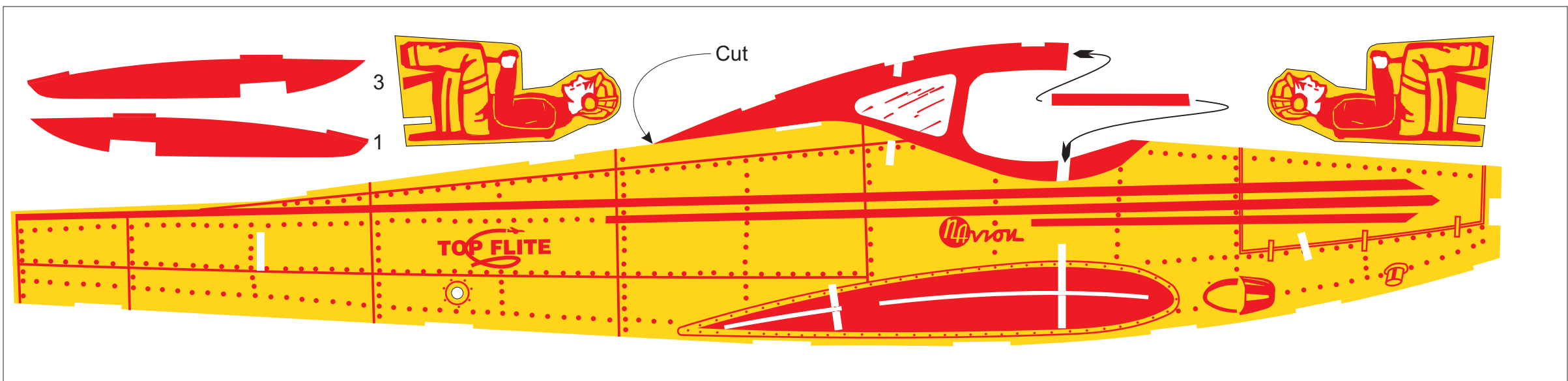
Paul Bradley

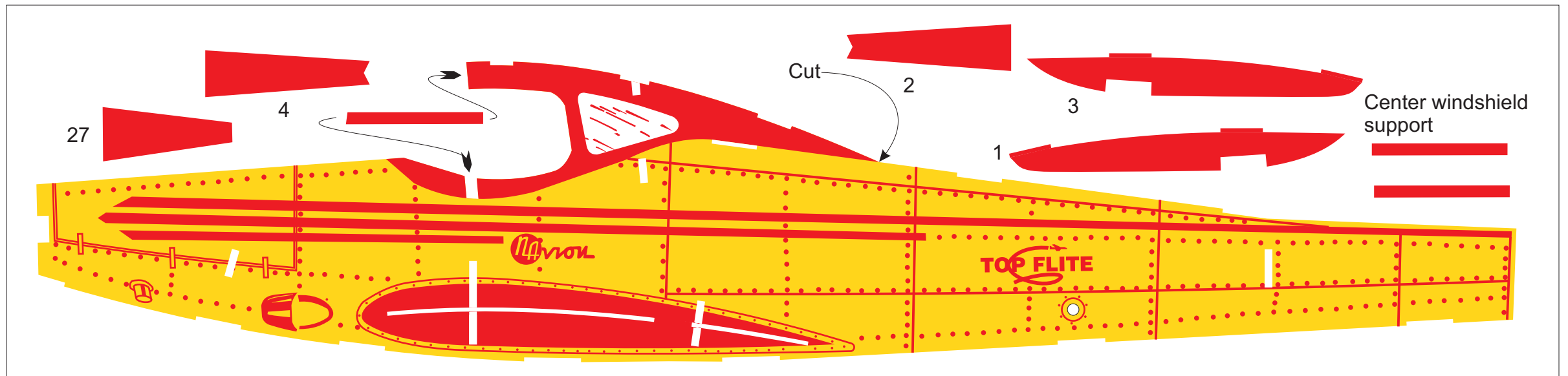




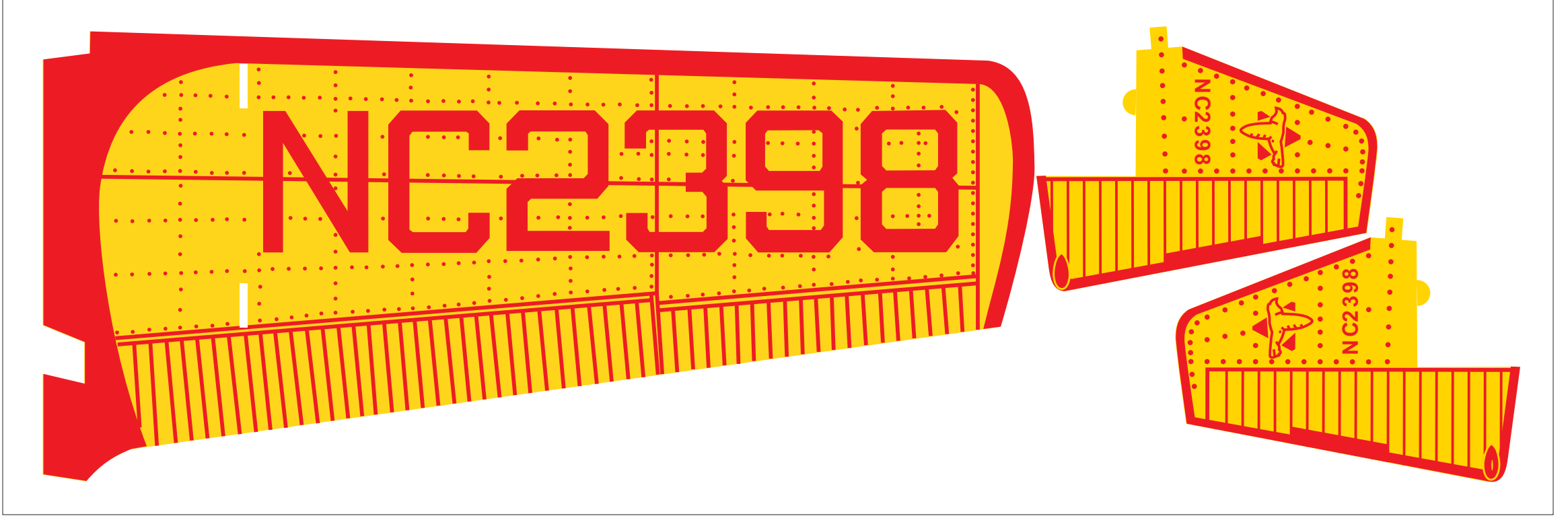
23

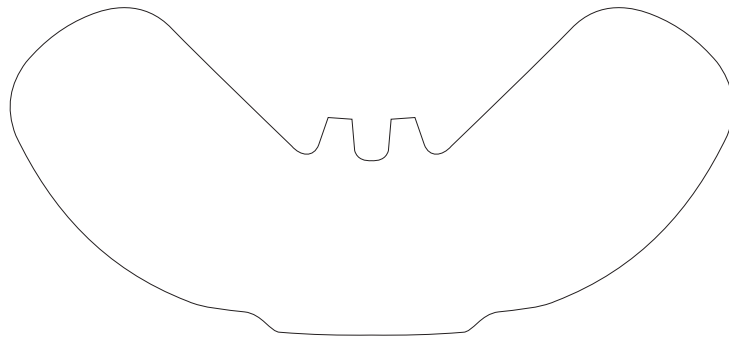












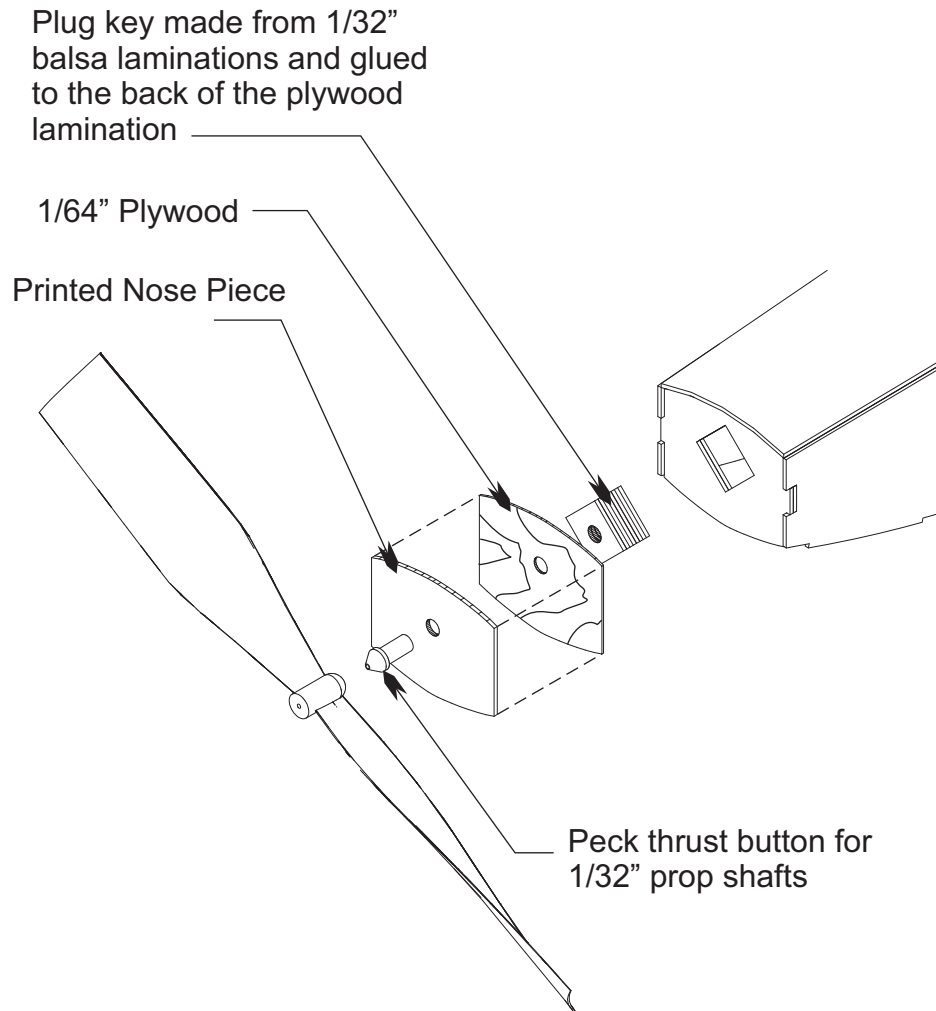
Windshield



Landing Gear Leg
Make 3 From .025"
Music Wire - Wheels 3/4"

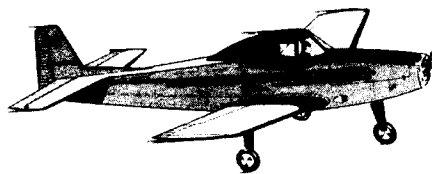
Navion

Removable Nose Assembly



TOP FLITE MODELS INC.

2635-45 SOUTH WABASH AVE. CHICAGO 16, ILL.



KIT B-5

NAVION

This Top Flite JIGTIME model is guaranteed to fly when the builder follows all the instructions. Follow especially the instructions on "How To Fly Your Model."

In case of difficulty, consult an experienced modeler. If you have made the model accurately and it still does not fly satisfactorily, the dealer is authorized to refund your purchase price upon surrender of the finished model.

FOR A WELL-BUILT MO

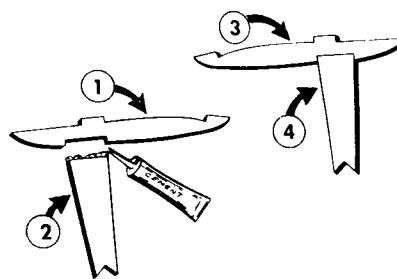
1 HANDY HINTS

Use regular model airplane cement. Use enough to hold well, and wipe off extra cement.

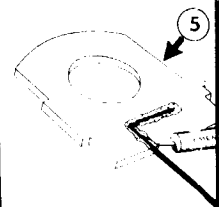
Take parts out of sheets only when you need them. Put scrap in a separate pile.

Be sure to teach your model to fly by following the instructions on "How To Fly."

Use a paper towel or napkin to wipe cement off your fingers.

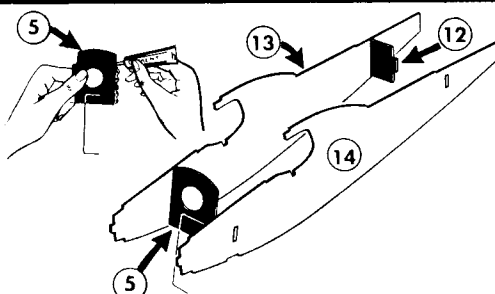


Cement Rib 1 to Strut 2, and Rib 3 to Strut 4. **HANDY HINT:** Work on a flat table covered with a large thin flat cardboard.

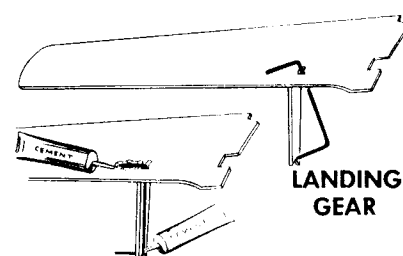


LANDING

3 Cement wire la onto Former 5.

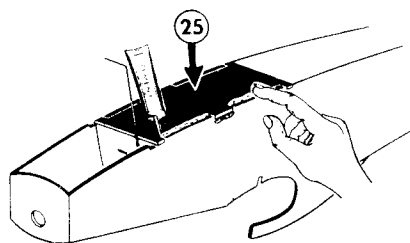


7 Cement Formers 5 and 12 to Fuselage Side 13. Then cement Fuselage Side 14 to Formers 5 and 12.

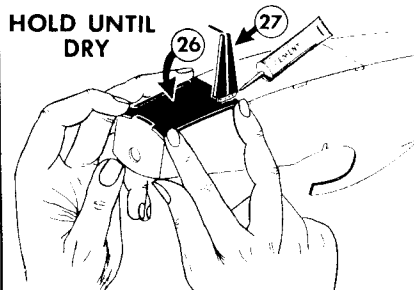


LANDING GEAR

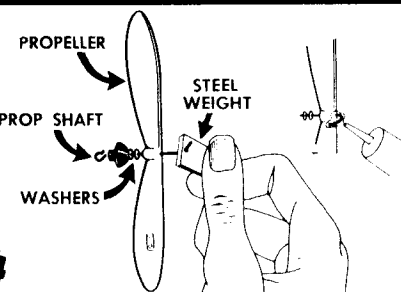
Slip wire landing gear in wing and into place against Strut 2. Do the same on other wing. Cement wire firmly to struts and wings.



12 Set Center Bottom 25 in place. Cement along edges, and wipe off extra cement.

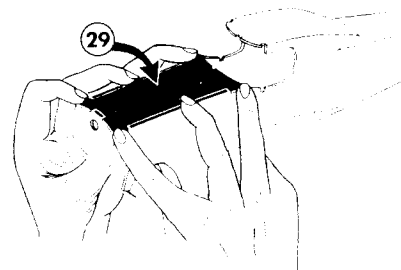


13 Cement Cowl Bottom 26 in place, and hold until dry. Cement Strut 27 to Cowl Bottom 26.

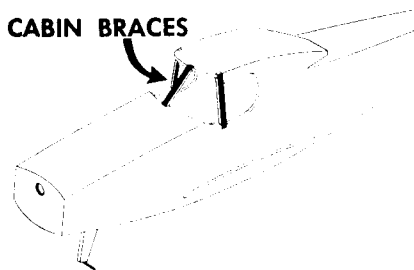


14

Slip Nose Button, 2 Washers, and Propeller on the Prop Shaft. Make sure little round lump at center of Propeller faces Nose Button. Use Steel Weight to bend hook on end of shaft. Cement hook to Propeller.

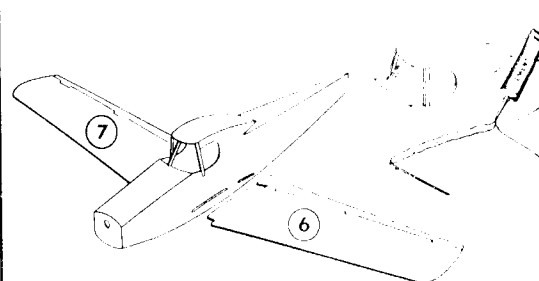


18 Bend Cowl Top 29 gently to curve, and cement in place. Hold until dry.



CABIN BRACES

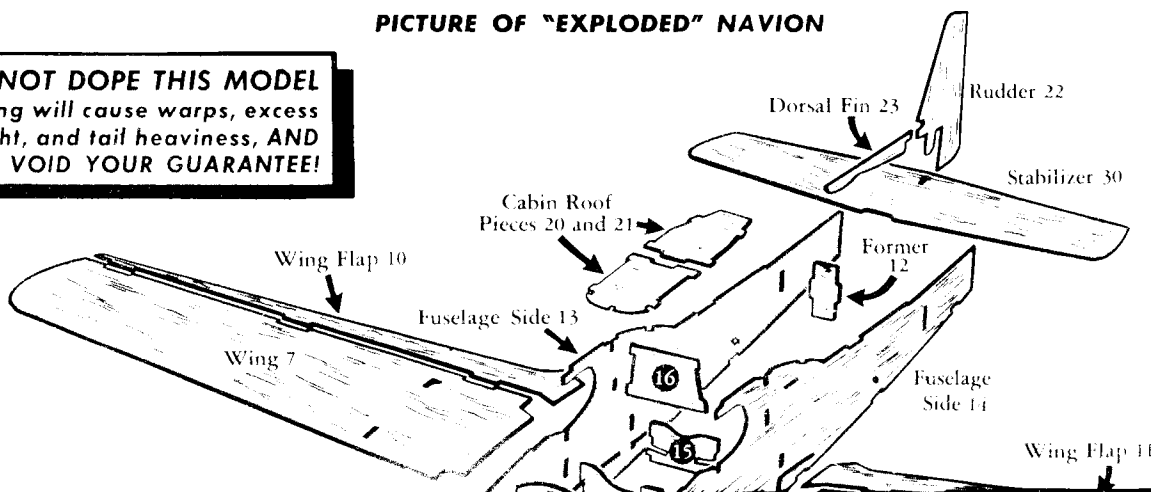
19 Cement Cabin Braces in place. The long braces go on the sides, and the short brace in the center.



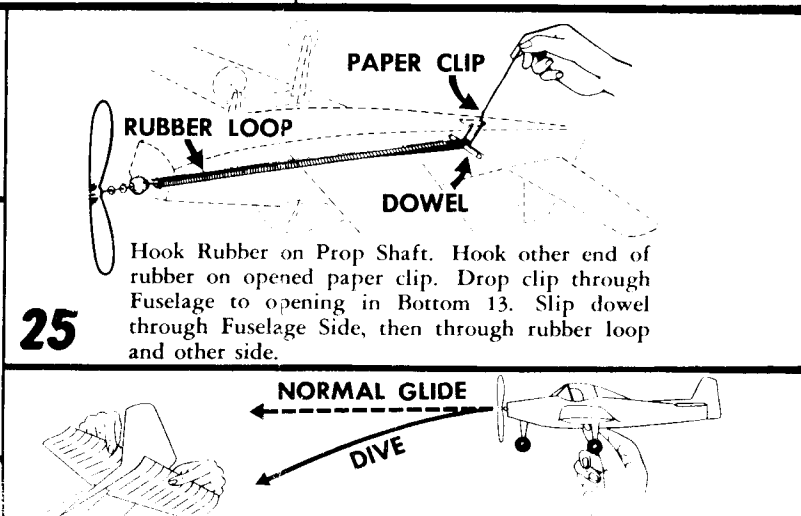
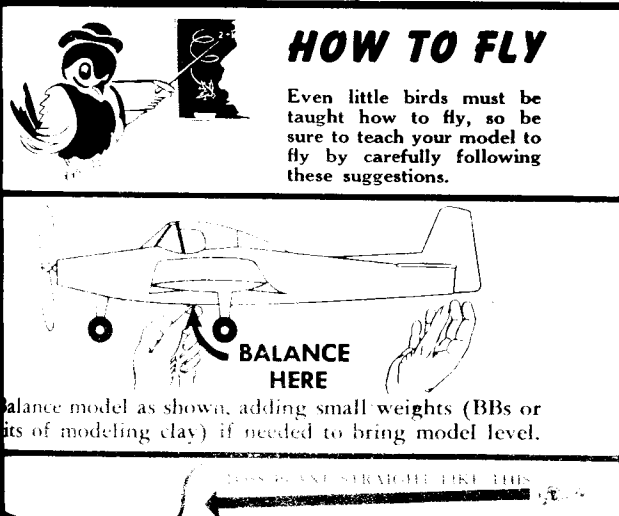
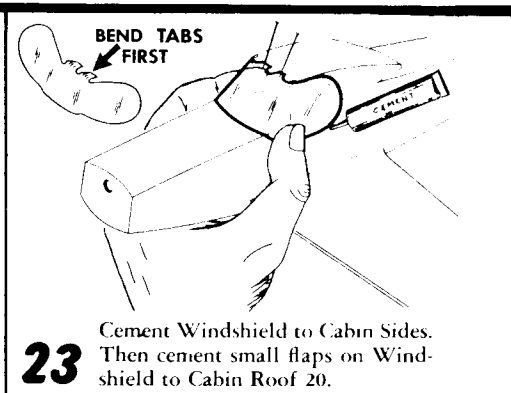
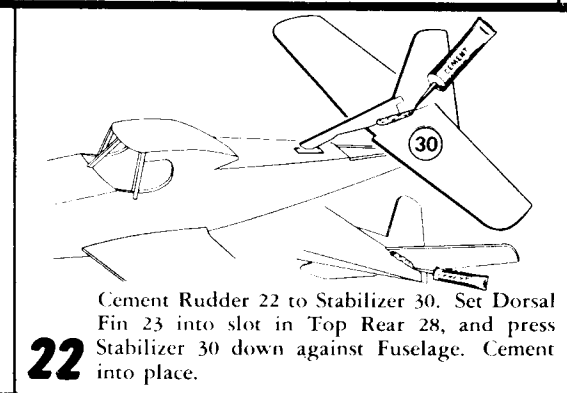
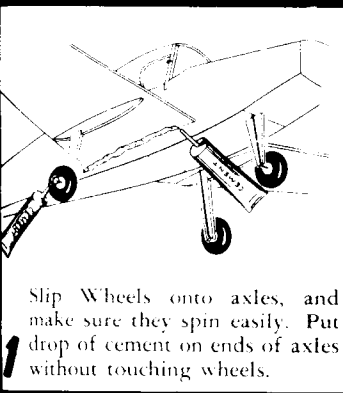
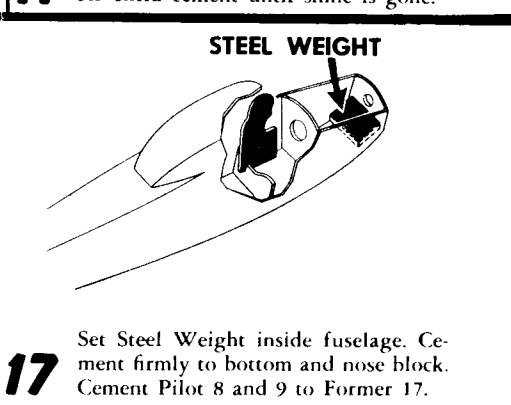
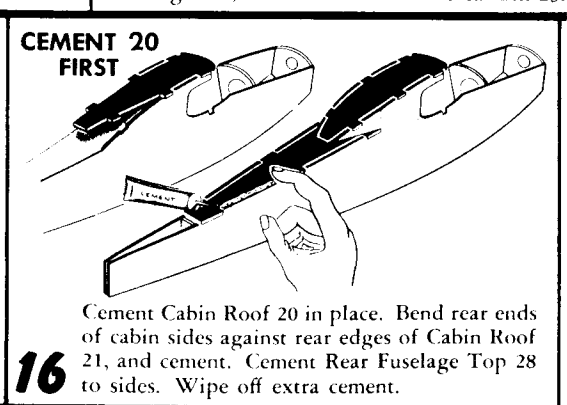
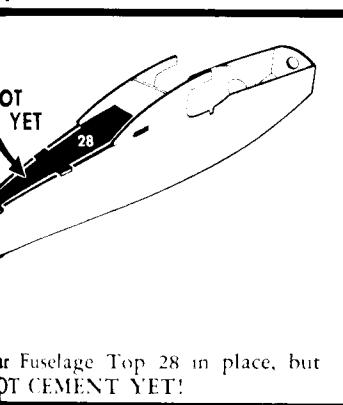
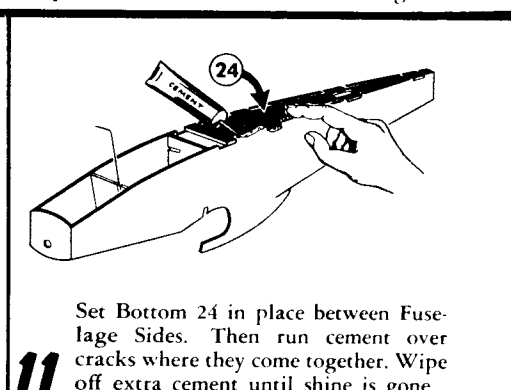
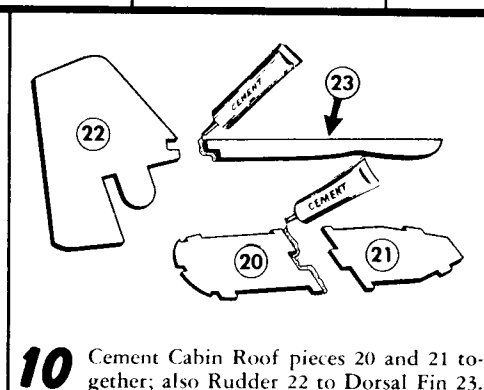
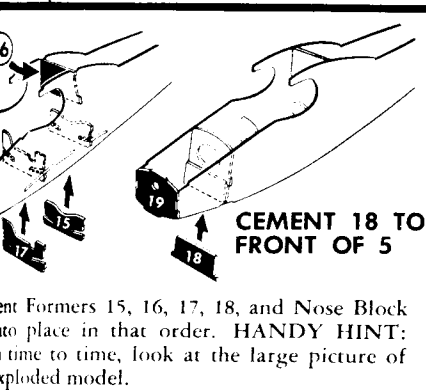
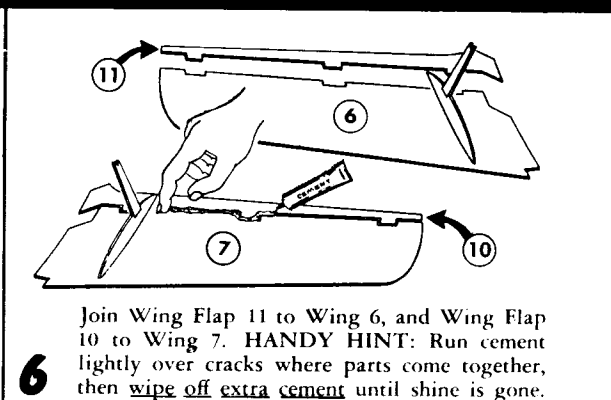
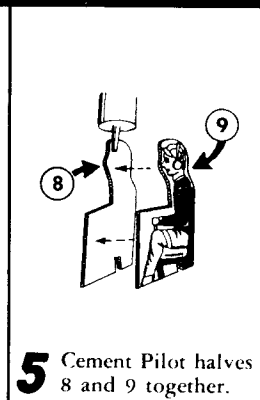
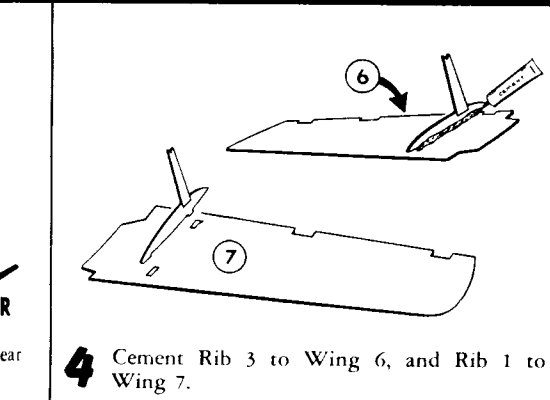
20 Slide Wings through Fuselage Sides into Former 15 and 17. Cement in place.

PICTURE OF "EXPLODED" NAVION

DO NOT DOPE THIS MODEL
Doping will cause warps, excess weight, and tail heaviness, AND WILL VOID YOUR GUARANTEE!



MODEL, FOLLOW THESE EASY STEPS!



NAVION

KIT B-5

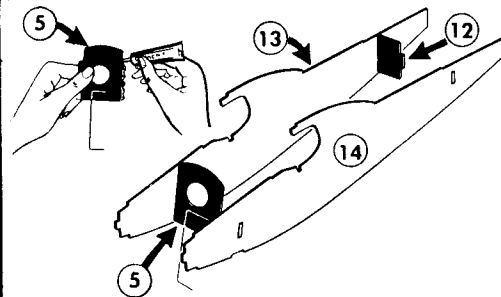
This Top Flite JIGTIME model is guaranteed to fly when the builder follows all the instructions. Follow especially the instructions on "How To Fly Your Model."

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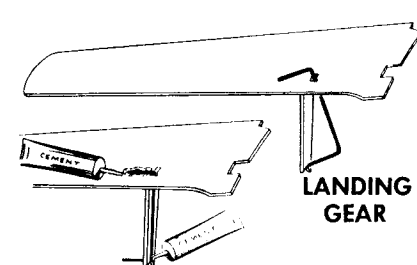
Use a paper towel or napkin to wipe cement off your fingers.

2 Cement Rib 1 to Strut 2, and Rib 3 to Strut 4. **HANDY HINT:** Work on a flat table covered with a large thin flat cardboard.

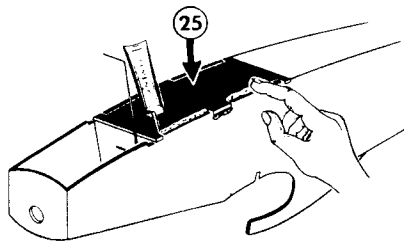
3 Cement wire landing gear onto Former 5.



7 Cement Formers 5 and 12 to Fuselage Side 13. Then cement Fuselage Side 14 to Formers 5 and 12.



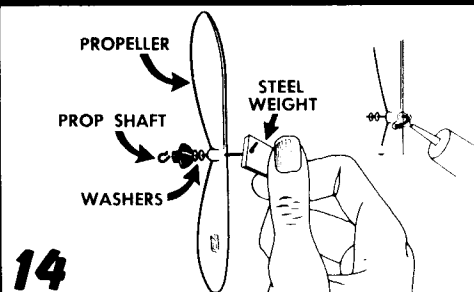
8 Slip wire landing gear through hole in wing and into place against Strut 2. Do the same on other wing. Cement wire firmly to struts and wings.



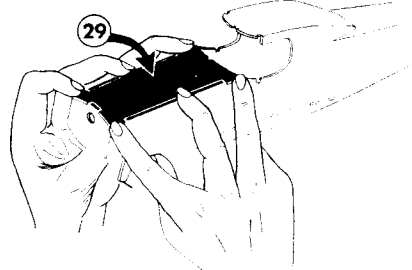
12 Set Center Bottom 25 in place. Cement along edges, and wipe off extra cement.



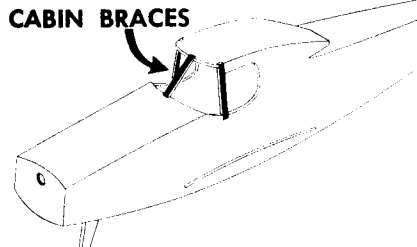
13 Cement Cowl Bottom 26 in place, and hold until dry. Cement Strut 27 to Cowl Bottom 26.



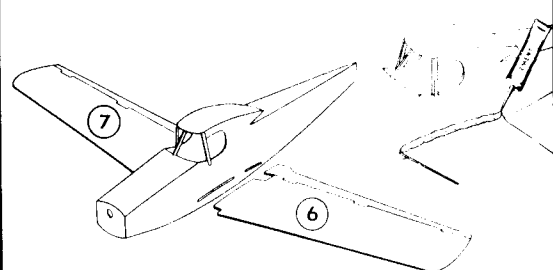
14 Slip Nose Button, 2 Washers, and Propeller on the Prop Shaft. Make sure little round lump at center of Propeller faces Nose Button. Use Steel Weight to bend hook on end of shaft. Cement hook to Propeller.



18 Bend Cowl Top 29 gently to curve, and cement in place. Hold until dry.



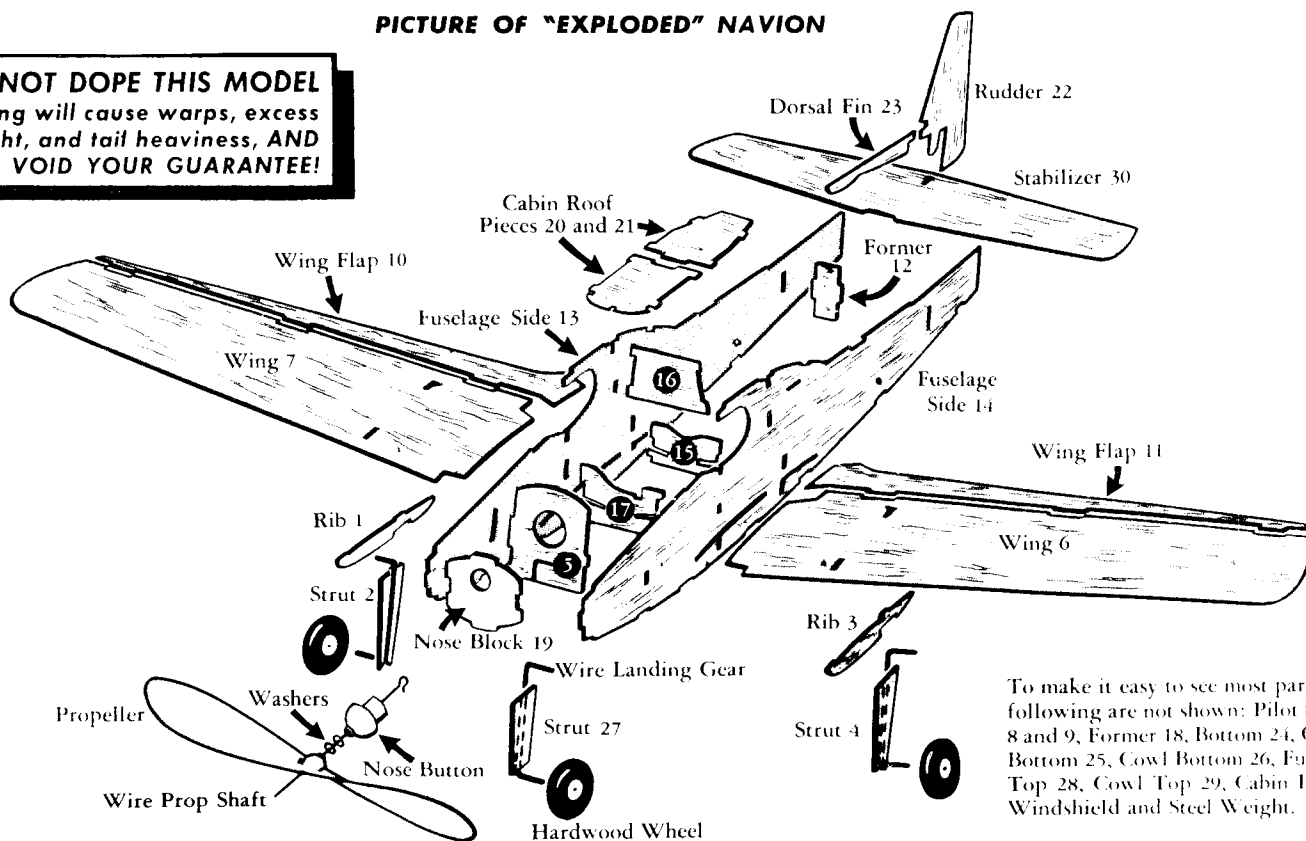
19 Cement Cabin Braces in place. The long braces go on the sides, and the short brace in the center.



20 Slide Wings through Fuselage Sides into Formers 15 and 17. Cement in place.

PICTURE OF "EXPLODED" NAVION

DO NOT DOPE THIS MODEL
Doping will cause warps, excess weight, and tail heaviness, AND WILL VOID YOUR GUARANTEE!

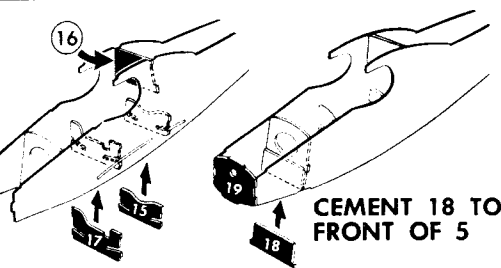


To make it easy to see most parts, the following are not shown: Pilot halves 8 and 9, Former 18, Bottom 24, Center Bottom 25, Cowl Bottom 26, Fuselage Top 28, Cowl Top 29, Cabin Braces, Windshield and Steel Weight.

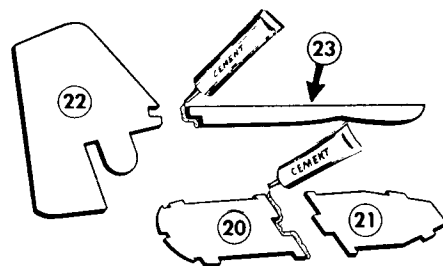
4 Cement Rib 3 to Wing 6, and Rib 1 to Wing 7.

5 Cement Pilot halves 8 and 9 together.

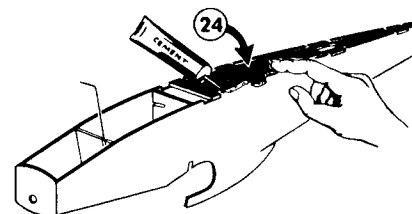
6 Join Wing Flap 11 to Wing 6, and Wing Flap 10 to Wing 7. **HANDY HINT:** Run cement lightly over cracks where parts come together, then wipe off extra cement until shine is gone.



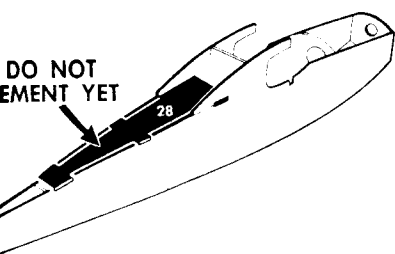
Cement Formers 15, 16, 17, 18, and Nose Block 19 into place in that order. **HANDY HINT:** From time to time, look at the large picture of the exploded model.



10 Cement Cabin Roof pieces 20 and 21 together; also Rudder 22 to Dorsal Fin 23.

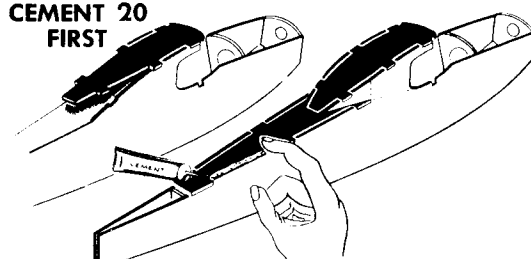


11 Set Bottom 24 in place between Fuselage Sides. Then run cement over cracks where they come together. Wipe off extra cement until shine is gone.



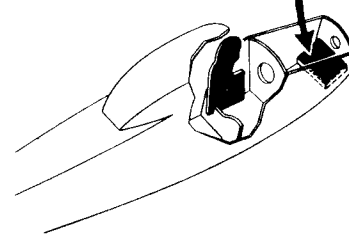
Set Rear Fuselage Top 28 in place, but **DO NOT CEMENT YET!**

CEMENT 20 FIRST

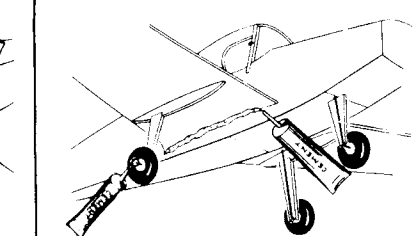


16 Cement Cabin Roof 20 in place. Bend rear ends of cabin sides against rear edges of Cabin Roof 21, and cement. Cement Rear Fuselage Top 28 to sides. Wipe off extra cement.

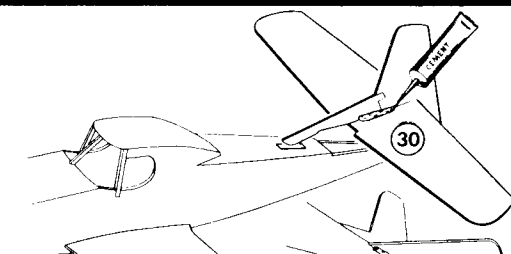
STEEL WEIGHT



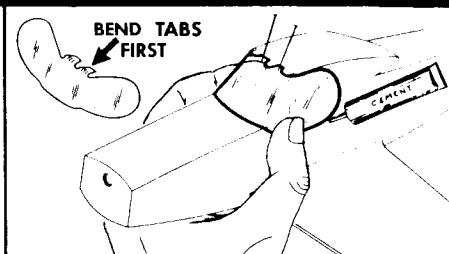
17 Set Steel Weight inside fuselage. Cement firmly to bottom and nose block. Cement Pilot 8 and 9 to Former 17.



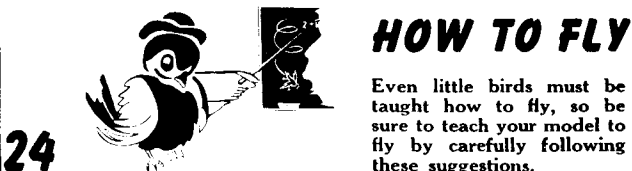
21 Slip Wheels onto axles, and make sure they spin easily. Put drop of cement on ends of axles without touching wheels.



22 Cement Rudder 22 to Stabilizer 30. Set Dorsal Fin 23 into slot in Top Rear 28, and press Stabilizer 30 down against Fuselage. Cement into place.

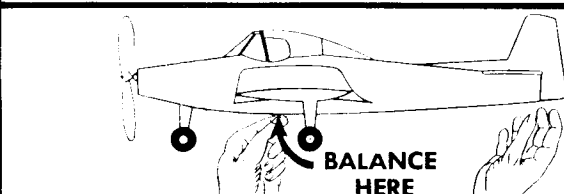


23 Cement Windshield to Cabin Sides. Then cement small flaps on Windshield to Cabin Roof 20.

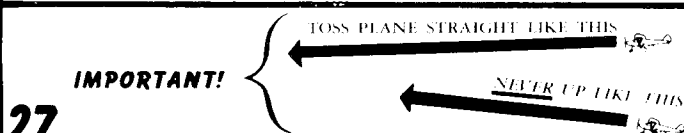


HOW TO FLY

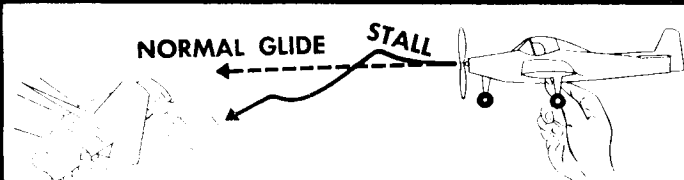
Even little birds must be taught how to fly, so be sure to teach your model to fly by carefully following these suggestions.



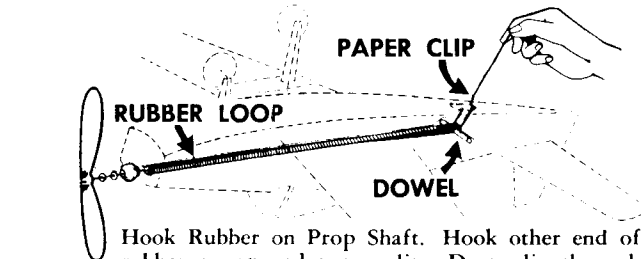
26 Balance model as shown, adding small weights (BBs or bits of modeling clay) if needed to bring model level.



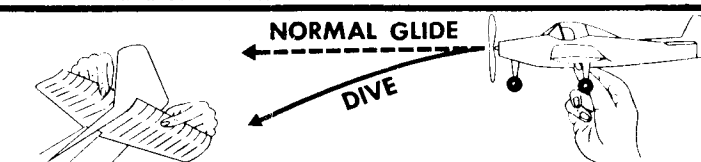
27 **IMPORTANT!** Toss plane straight like this. Never up like this.



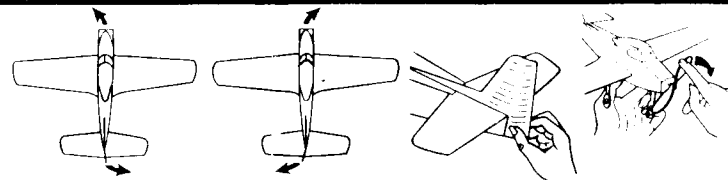
29 If model stalls, (climbs, then dives sharply), bend tail down until glide is smooth and flat.



25 Hook Rubber on Prop Shaft. Hook other end of rubber on opened paper clip. Drop clip through Fuselage to opening in Bottom 13. Slip dowel through Fuselage Side, then through rubber loop and other side.



28 Test glide model over tall grass. If model dives, bend tail up a little at a time until a smooth flat glide is obtained.



30 If model turns, bend rudder opposite to direction of turn to get straight flights. Wind motor to 200 turns and check power flight. For extra long flights, rub castor oil into the rubber motor and wind 300 turns.