

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.

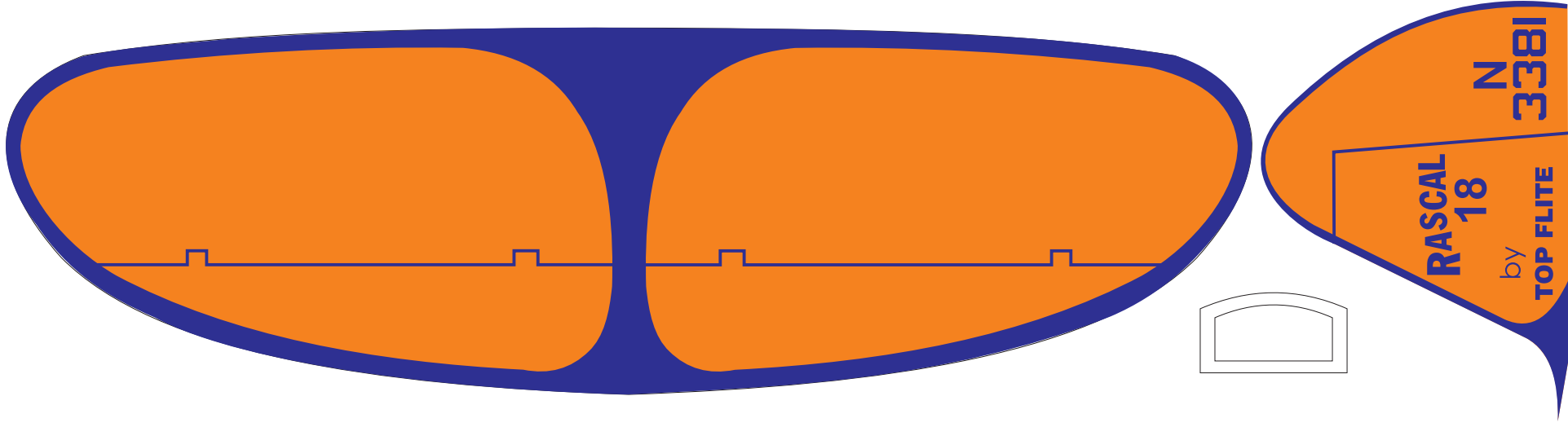
I like to use a removable nose for winding. The parts have been drawn with this in mind. An un-colored nose former has been drawn that is to be part of the fuselage structure. A colored nose piece has also been drawn. The piece when backed with a piece of 1/64" plywood becomes the removable part. The 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



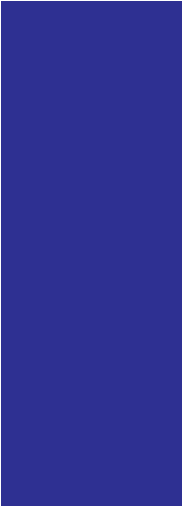
**RASCAL
18**

by
TOP FLITE

**N
3381**



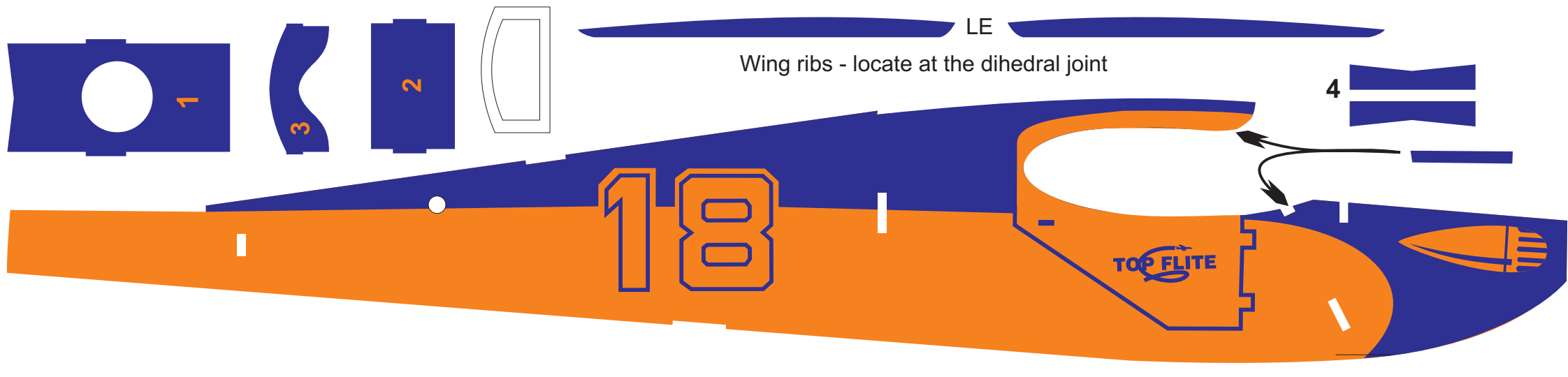
1" Dihedral under
each wing tip

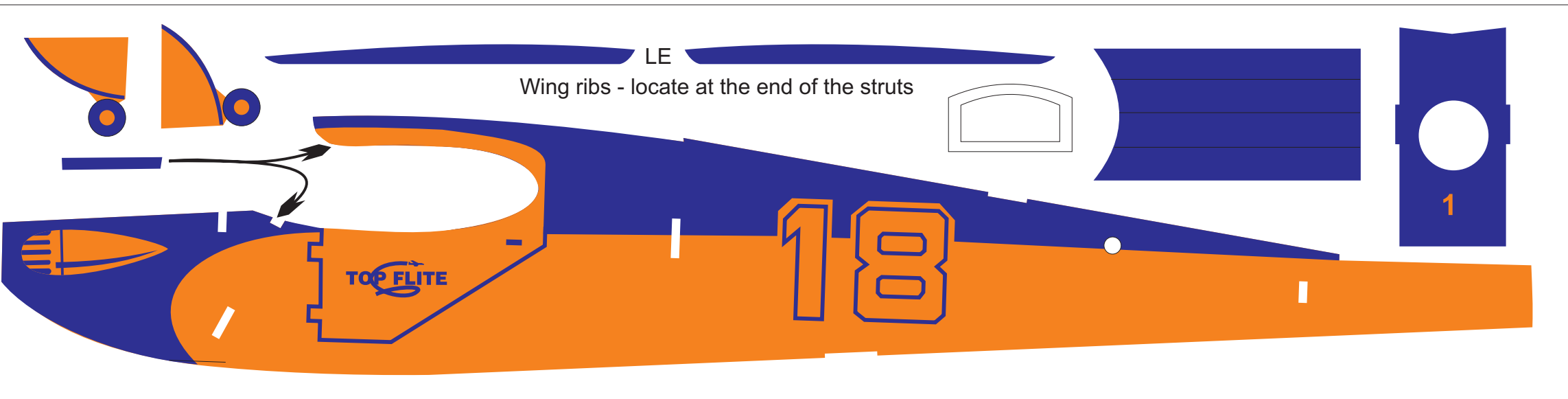


COWL BOTTOM



1" Dihedral under
each wing tip





LE

Wing ribs - locate at the end of the struts

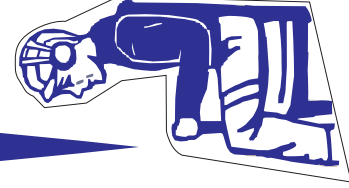
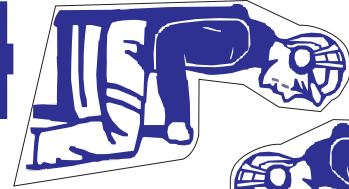
TOP FLITE

18

1

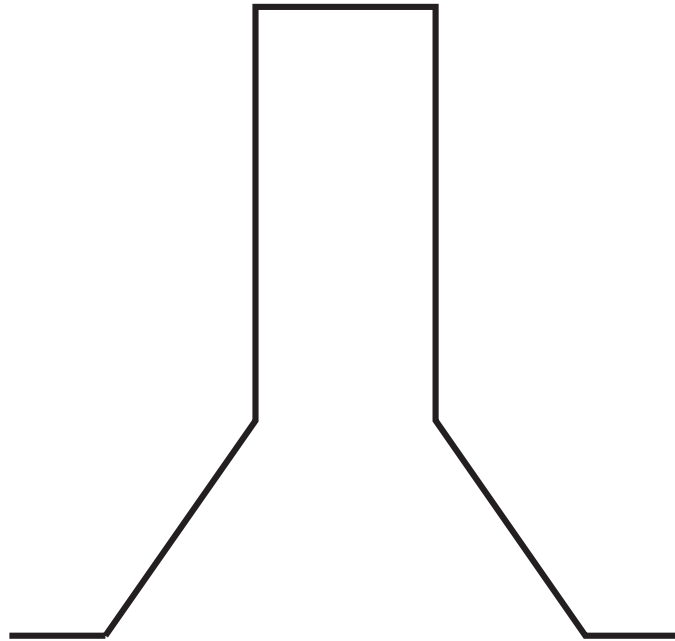


BOTTOM

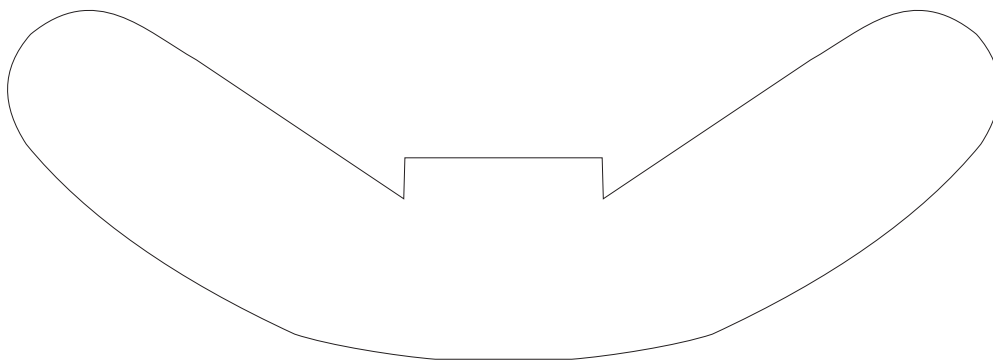


TOP REAR



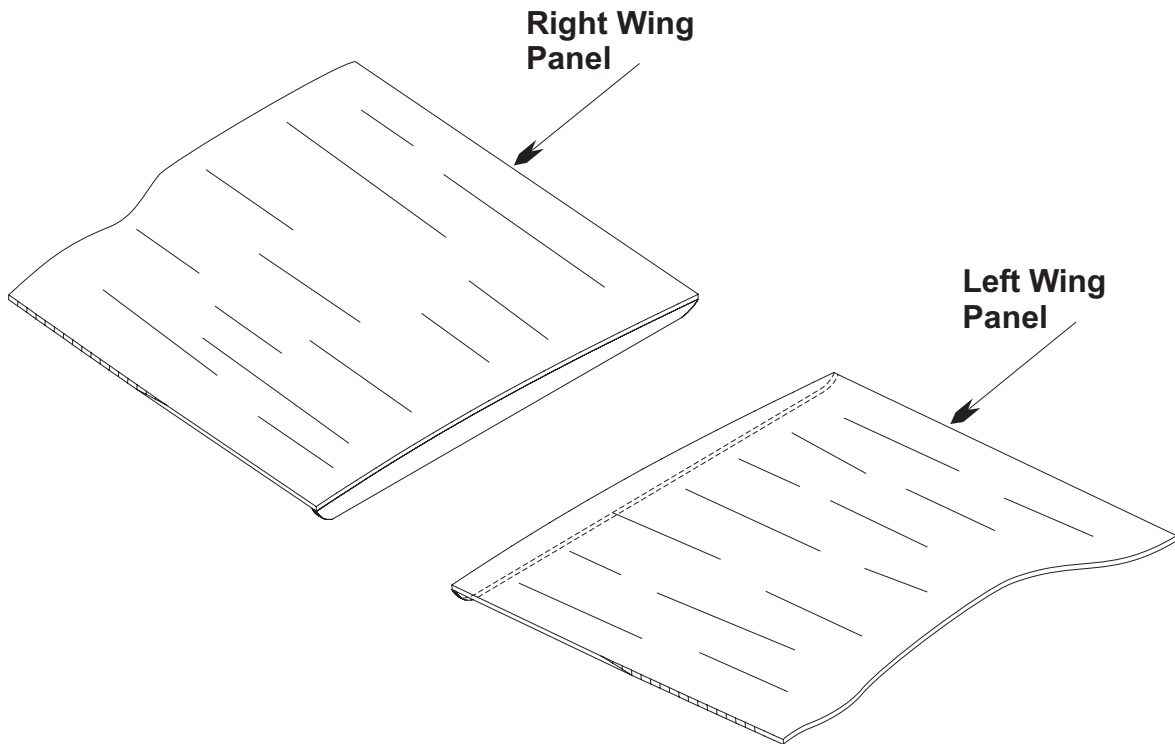


Landing Gear - .025 music wire.
Use .75" wheels.



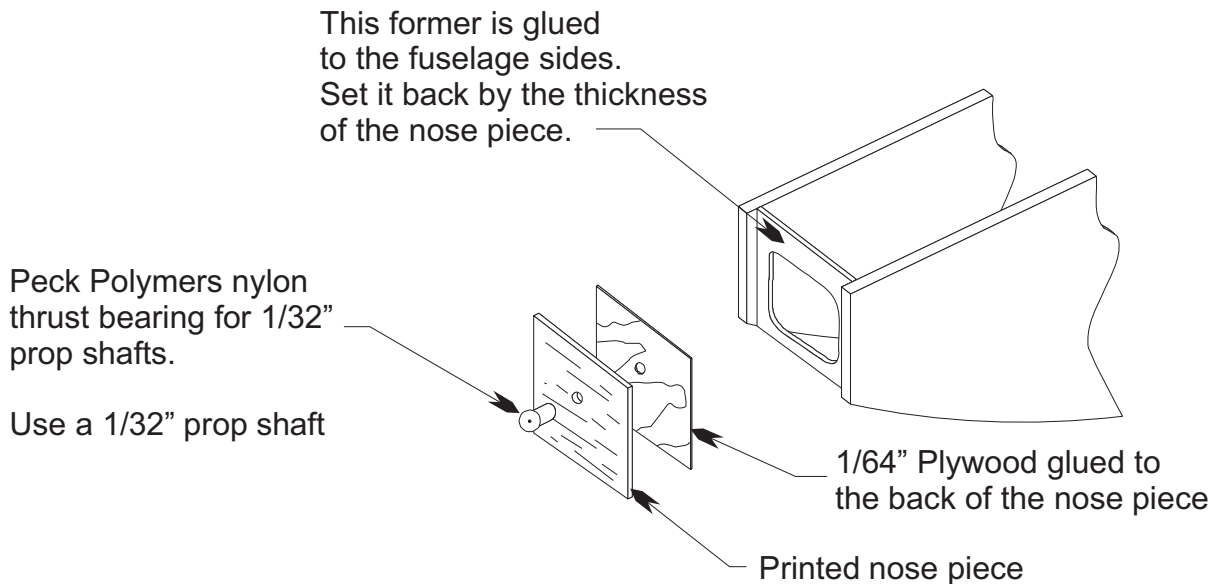
RASCAL 18

Wing Assembly



There is no center section in the wing panels for the Rascal 18. The wing uses a simple "V" dihedral arrangement. Glue a rib to the center of each wing panel. Block the tip of the wing panel up 1" when gluing the center rib. After the center ribs are dry glue the panels together. There should be 1" of dihedral under each tip or 2" under one tip with a panel flat on the building surface. Another rib gets glued to the strut location on each wing panel.

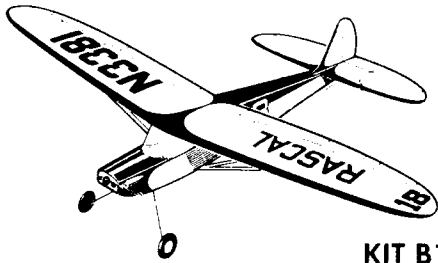
Removable Nose Assembly



TOP FLITE

MODELS INC.

2635-45 S. Wabash Ave., Chicago 16, Illinois



KIT B1

RASCAL 18

Designed by
Drafting & Layout
Sketches by

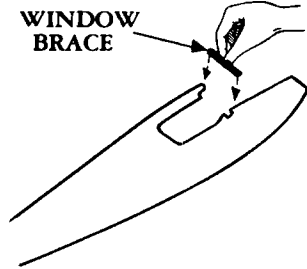
Carl Goldberg
Walter Fromm
Eugene Solti

This model is guaranteed to fly when built and
flown according to directions.

DO NOT DOPE THIS MODEL!

FOR A WELL-BUILT MO

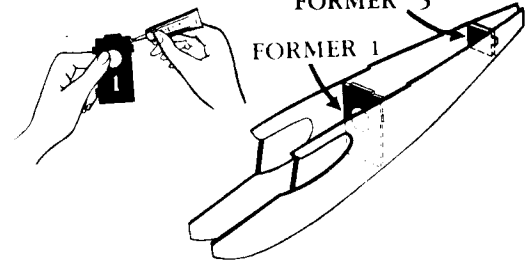
WINDOW
BRACE



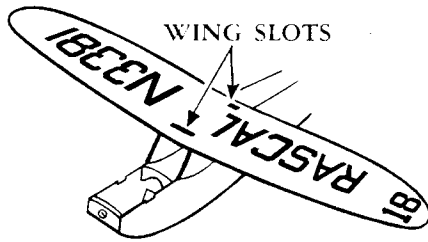
1 Remove parts from die sheets. Ce-
ment window braces in place.

FORMER 5

FORMER 1

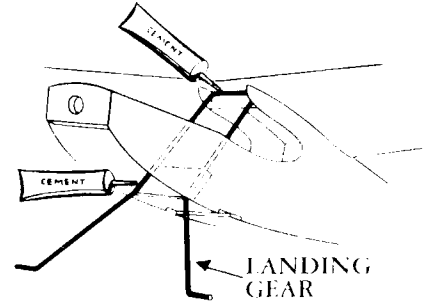


2 Apply cement to sides of formers 1 and 5,
and cement formers in place.



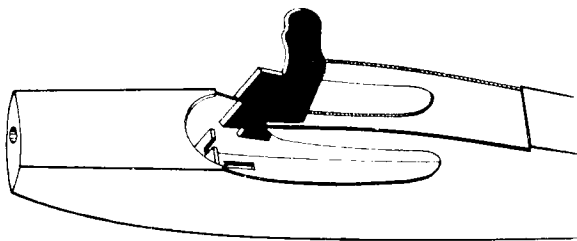
WING SLOTS

6 Line up slots in wing on formers
1 and 4, then while in place, cement
wing underneath to fuselage.

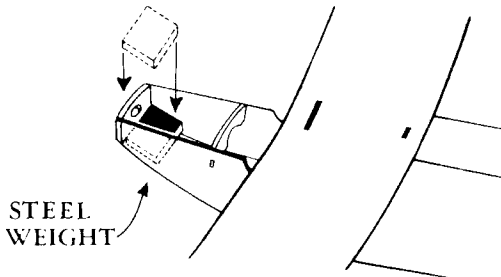


LANDING
GEAR

7 Cement landing gear inside fuse-
lage to front of formers 2 and 4,
and against bottom of wing.

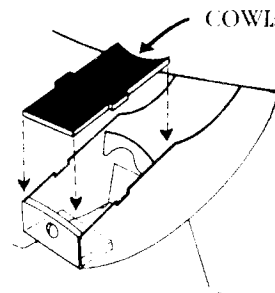


11 Cement pilot into notches.



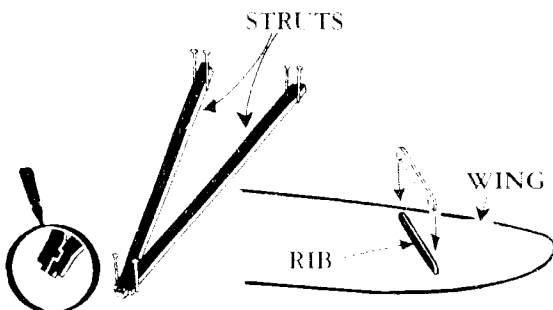
STEEL
WEIGHT

12 Cement weight securely to inside
cowl bottom and against noseblock.



COWL

13 Cement top of
cowl dries.

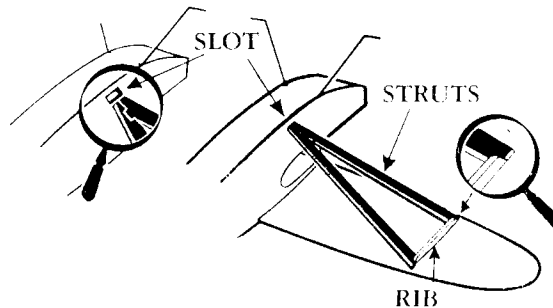


STRUTS

WING

RIB

16 Cement struts together over Main Drawing.
Cement ribs to bottom of wing.

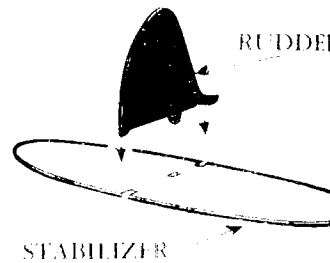


SLOT

STRUTS

RIB

17 Cement struts to ends of wing
rib, then into slot in fuselage.



RUDDER

STABILIZER

18 Cement rudder to stabilizer.

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

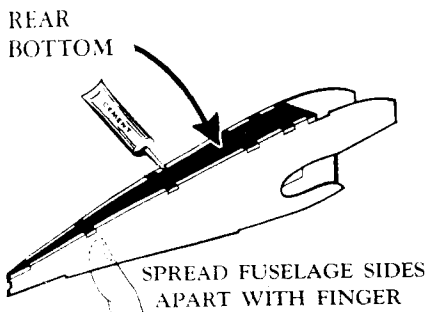
WINDSHIELD

COWL TOP

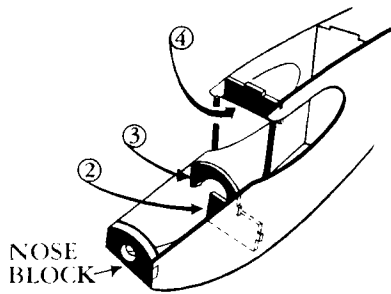
RIB

4

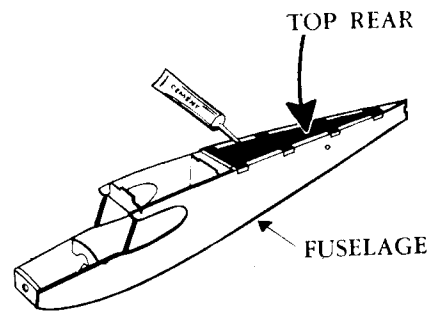
MODEL, FOLLOW THESE EASY STEPS!



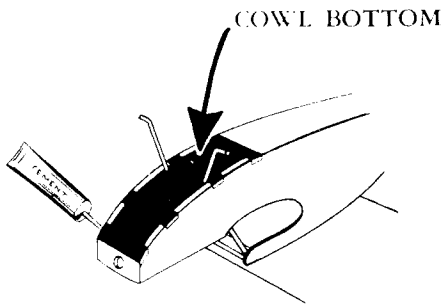
3 Put rear bottom in place, then cement while in position.



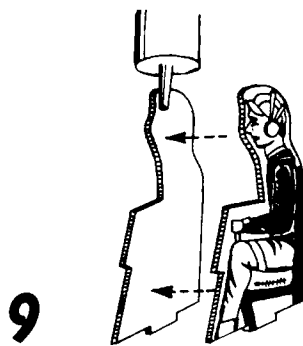
4 Cement formers 2, 3, 4 and noseblock in place in that order.



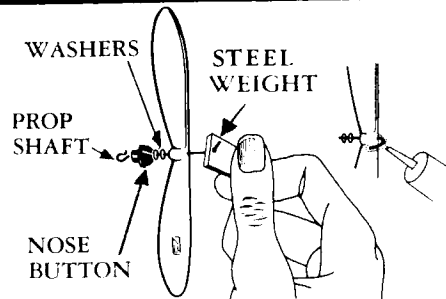
5 Put top rear in place, then cement while in position.



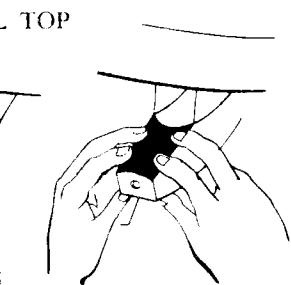
8 Put bottom of cowl in place then cement while in position. Hold until cement dries.



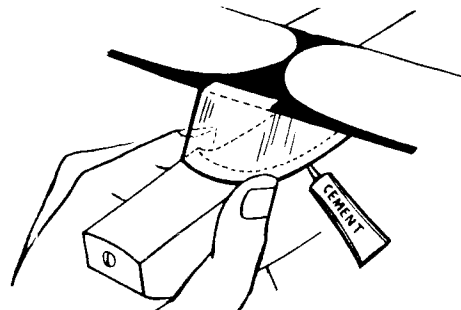
9 Cement two sides of pilot together.



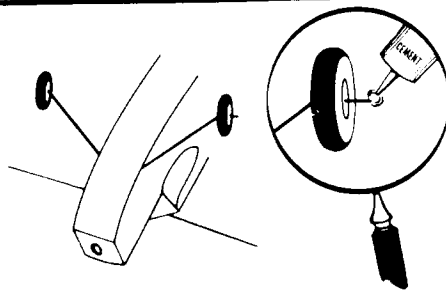
10 Slip nose button, washers and prop on prop shaft. Use steel weight to bend hook on end of shaft. Slide prop to this hook and cement in place.



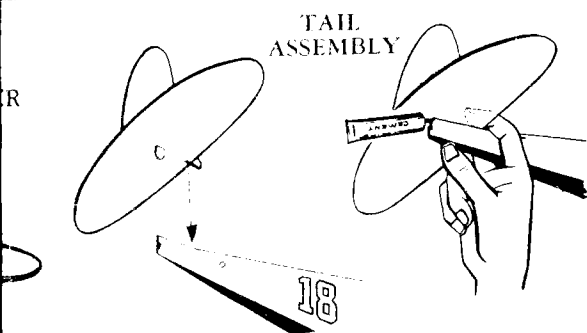
13 Hold cowl in place, hold until cement dries.



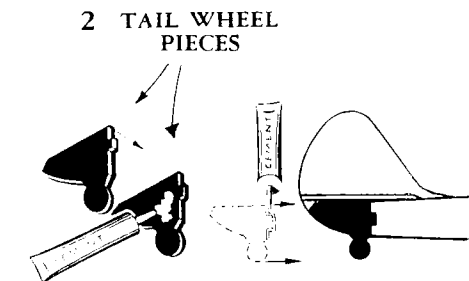
14 Cement windshield to cowl and fuselage.



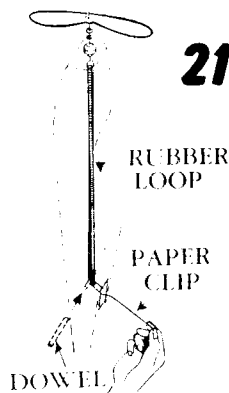
15 Slip wheels on axles and make sure they spin easily. Put drop of cement on ends of axles without touching wheel.



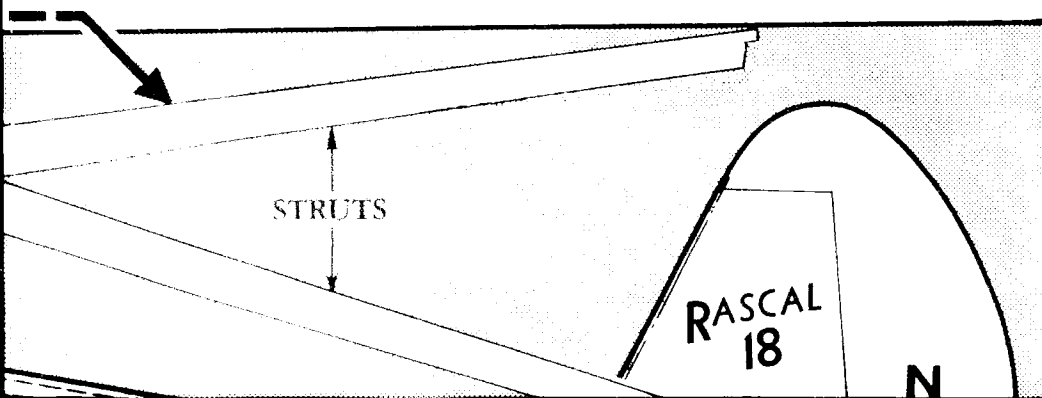
19 Cement tail assembly to fuselage. Hold until cement dries.



20 Cement tail wheel pieces together. Cement tail wheel to end of fuselage. Hold until cement dries.



21 Hook rubber on prop shaft. Hook other end of rubber on opened paper clip, and drop through fuselage to rear opening. Slip dowel thru fuselage side... then thru rubber loop and other side.



HOW TO FLY



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



RASCAL 18

KIT B1

Designed by
Drafting & Layout
Sketches by

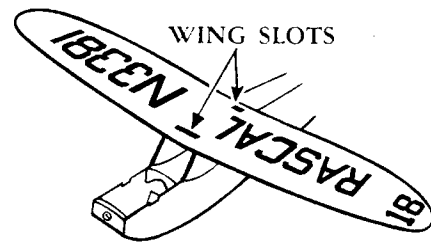
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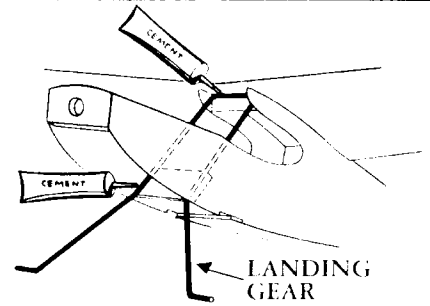
DO NOT DOPE THIS MODEL!

ment window braces in place.

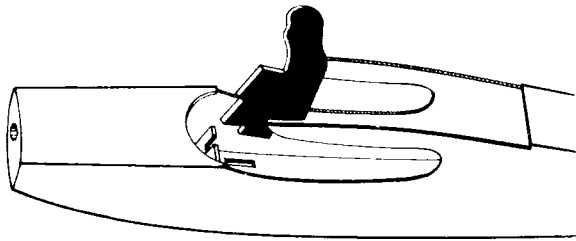
and cement formers in place.



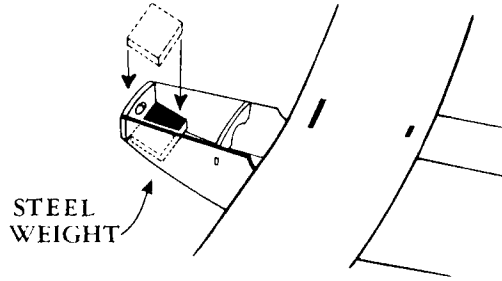
6 Line up slots in wing on formers 1 and 4, then while in place, cement wing underneath to fuselage.



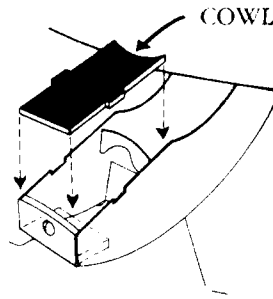
7 Cement landing gear inside fuselage to front of formers 2 and 4, and against bottom of wing.



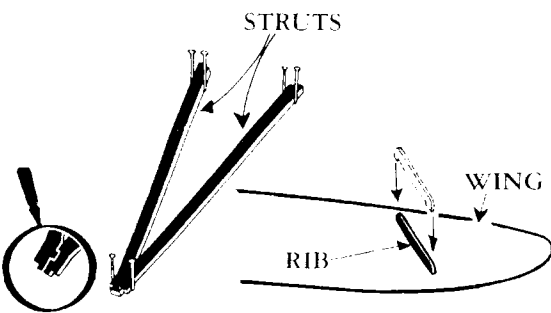
11 Cement pilot into notches.



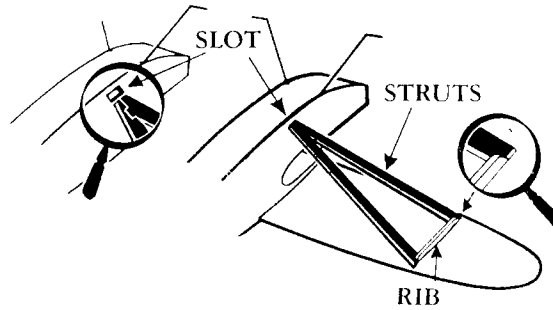
12 Cement weight securely to inside cowl bottom and against noseblock.



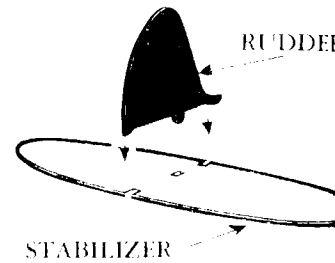
13 Cement top of fuselage. Cement dries.



16 Cement struts together over Main Drawing. Cement ribs to bottom of wing.

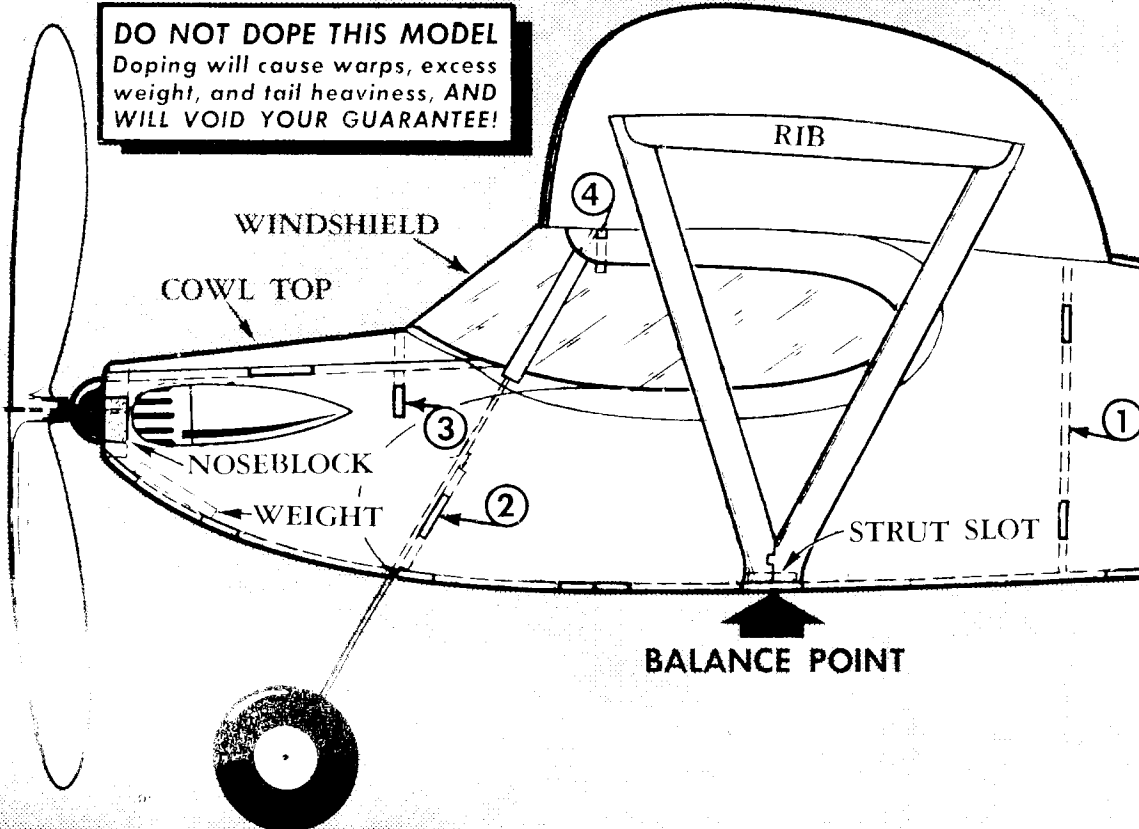


17 Cement struts to ends of wing rib, then into slot in fuselage.



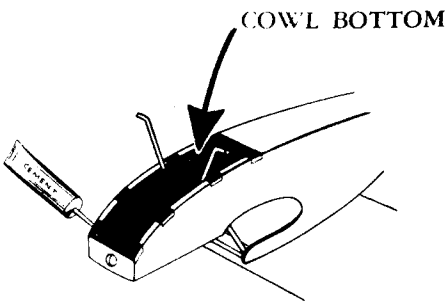
18 Cement rudder to stabilizer.

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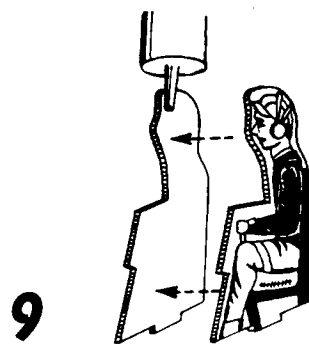


18

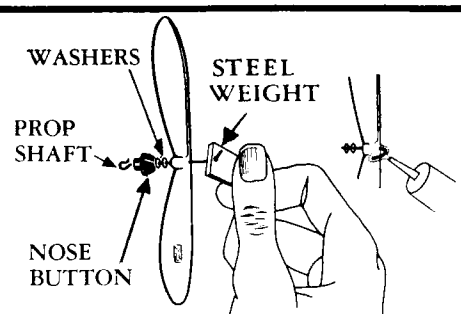
IMPORTANT!



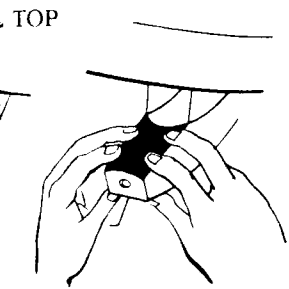
8 Put bottom of cowl in place then cement while in position. Hold until cement dries.



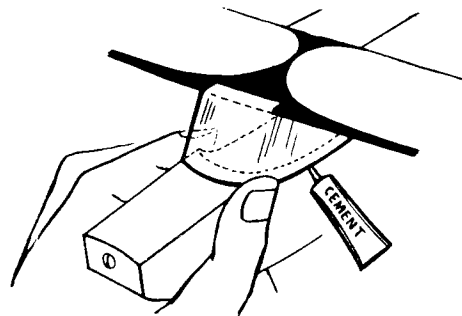
9 Cement two sides of pilot together.



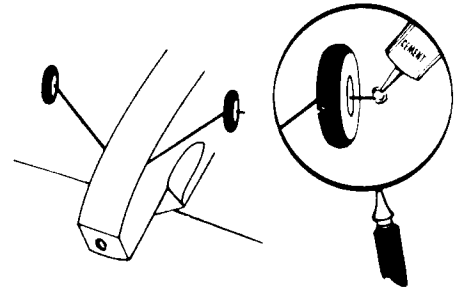
10 Slip nose button, washers and prop on prop shaft. Use steel weight to bend hook on end of shaft. Slide prop to this hook and cement in place.



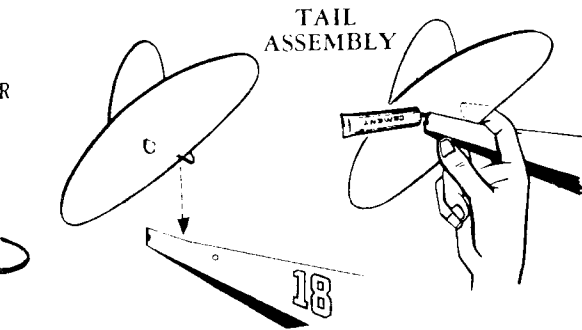
cowl in place, hold until



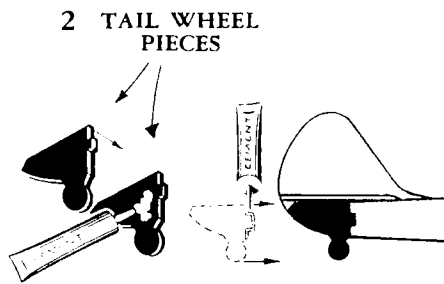
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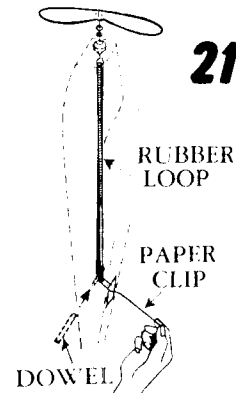
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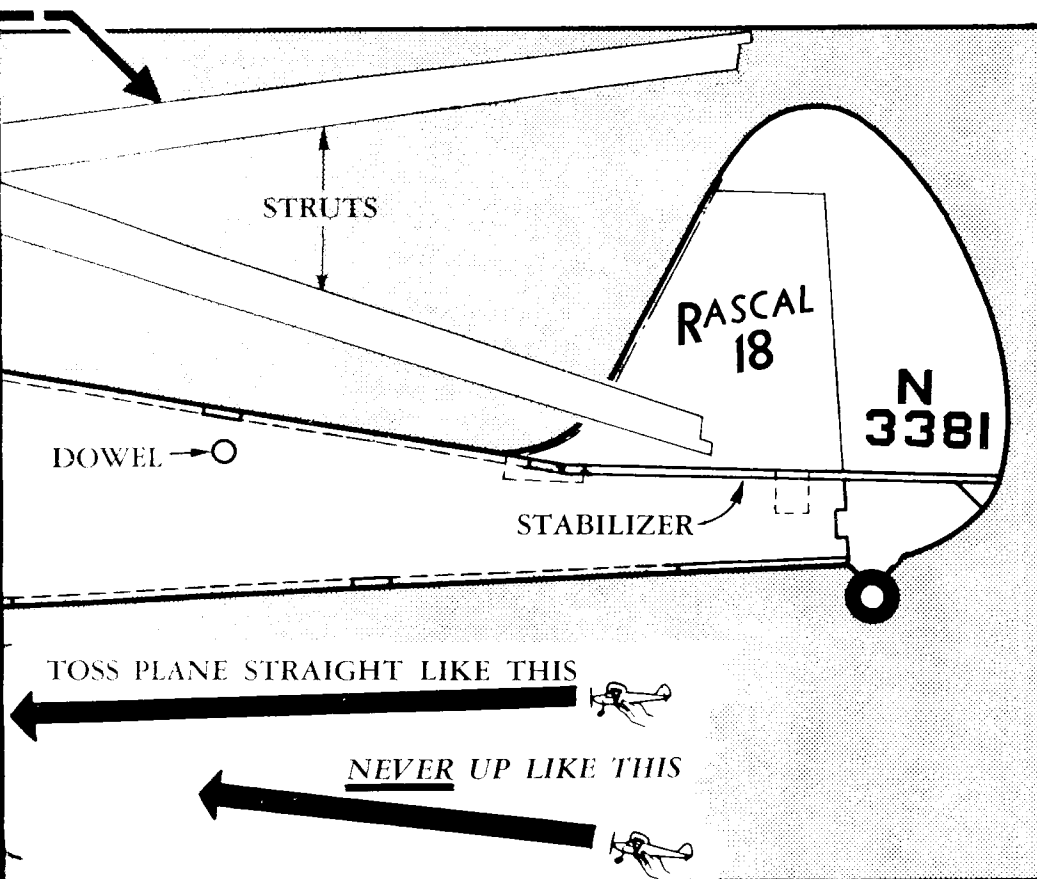
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HOW TO FLY



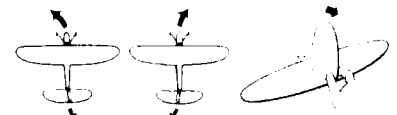
1 Balance model as shown, adding small weights (BBs or bits of modeling clay) if needed to bring model level.



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



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



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