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. 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. The nose former has been drawn so a removable nose plug can be used. Please refer to the supplemental building notes for the arrangement of the removable nose plug.

The 1/32" balsa fuselage sides felt a little soft in the cockpit area. As a result I added a new fuselage former 7 and a cockpit floor. The addition of the cockpit floor made it possible to also add a pilot figure.

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. This 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 1/64" plywood to the inside of each fuselage side at the peg location. This has proven to be plenty strong 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.

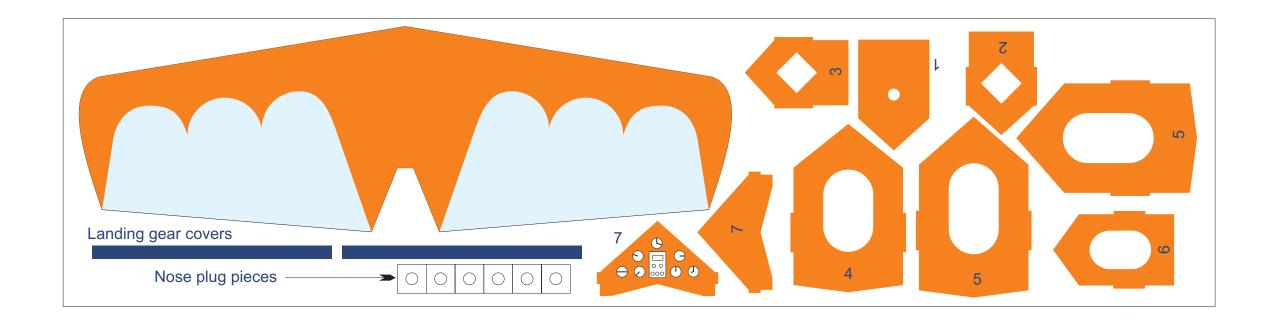
The original kit used 1/16" balsa for the wing panels and had them flat. Wings made from 1/32" balsa without any camber tend to be fairly flexible along the span. Depending on the stiffness of the balsa used for the wings it may be necessary to laminate a second layer of balsa to the wings. If you would like color on the bottom of the wings a second set of wing panels can be printed and used to form two layer laminated panels. You can also use plain balsa to retain the look of the original kit built model.

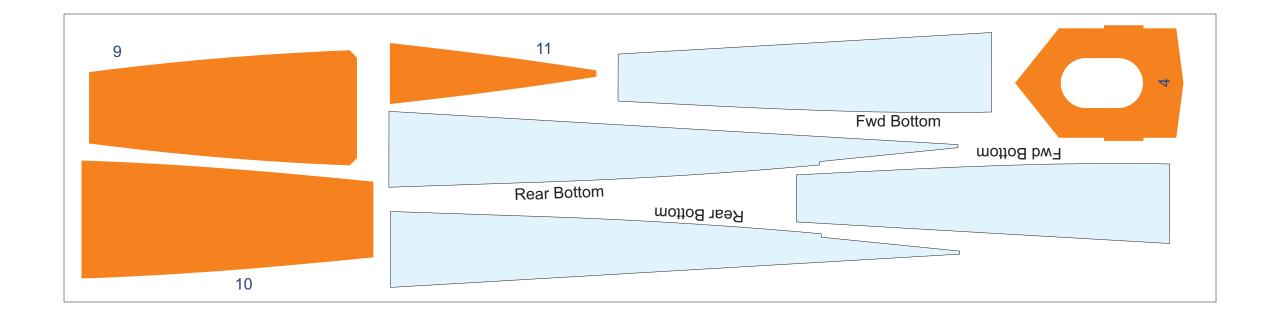
The original kit spinner came molded with a prop. A separate spinner has been drawn for use with a better performing prop.

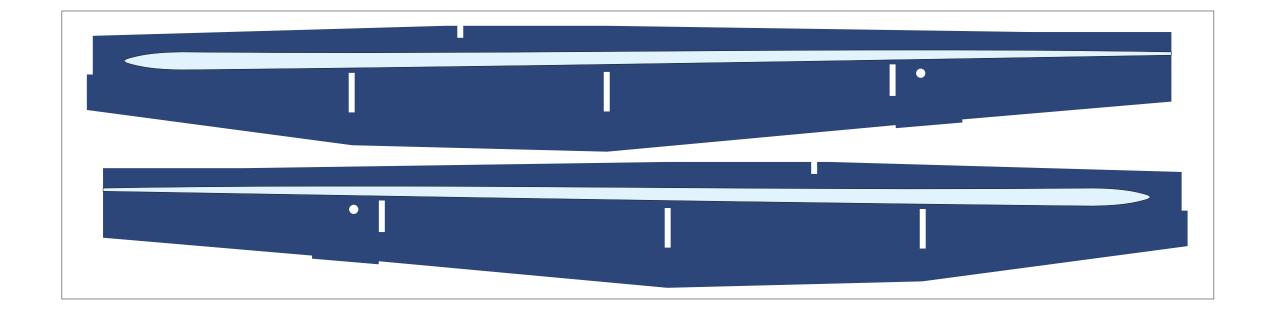
The drawings for the Keil Kraft Swallow are based on a scan of the kit plan and drawings of the kit parts provided by Andrew Darby. I did add color to the areas of the original model that were left plain balsa.

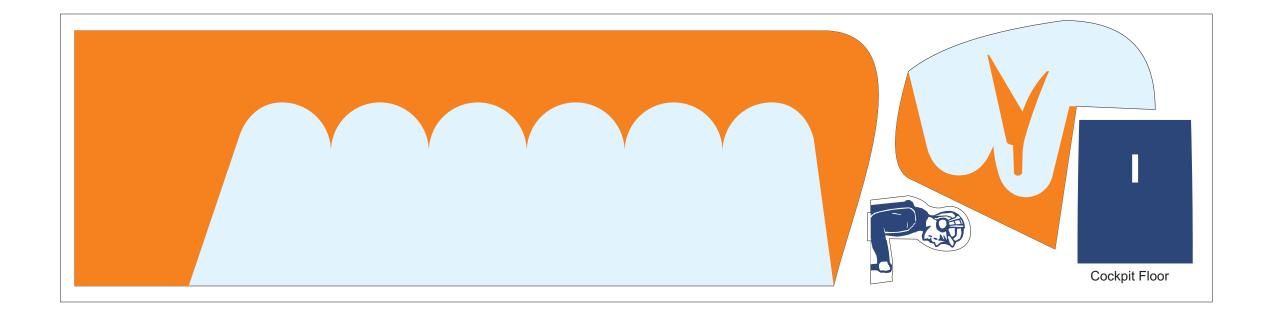
I do hope you build and enjoy a model from this plan package.

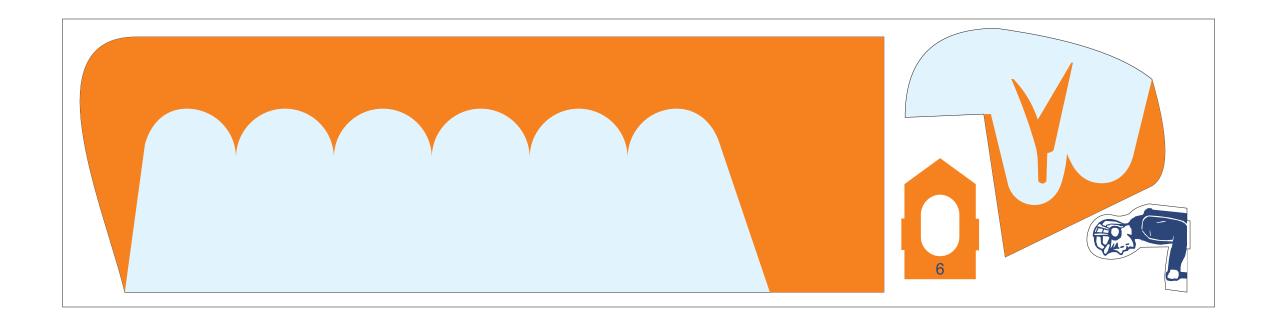
Paul Bradley

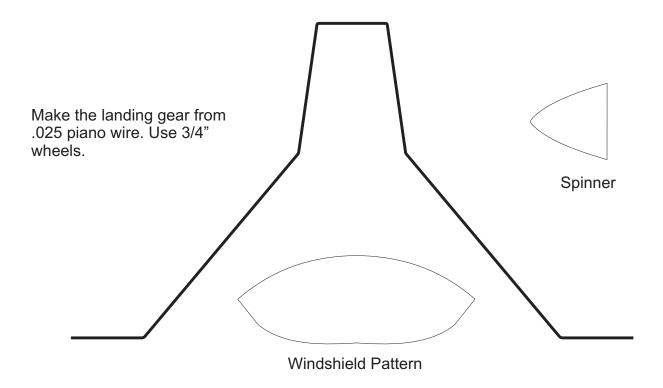






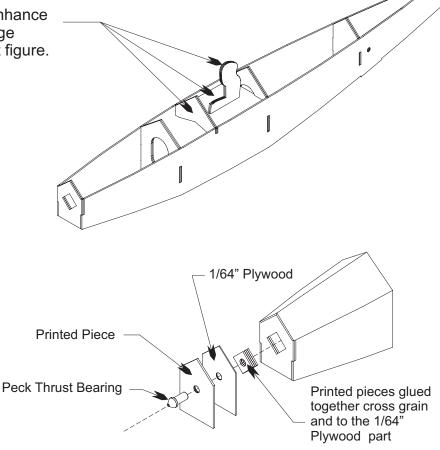






These parts have been added to enhance the original kit. They include fuselage former 7, a cockpit floor, and a pilot figure.

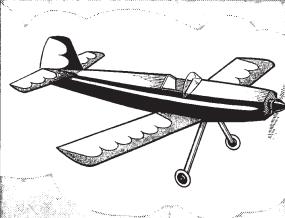
The reproduction Swallow has been drawn to use 1/32" balsa. Depending on the stiffness of the balsa used to build the model it may be necessary to use two laminations for the flat wings. The lack of an airfoil dramatically reduces the spanwise bending strength. You can either print an extra set of wings so printing will be on both sides, or you can use plain balsa for the second lamination if needed.



**Nose Plug Arrangement** 

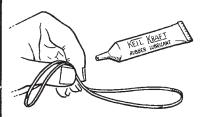
## **Keil Kraft EeZe Built Swallow Building Notes**



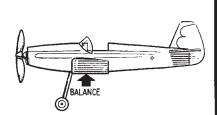


## **SWALLOW**

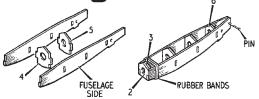
Flying - - -



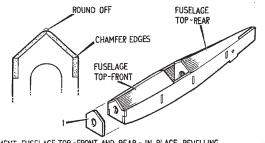
PREPARE RUBBER MOTOR FOR FLYING BY LUBRICATING WITH RUBBER LUBRICANT OR CASTOR OIL. CAREFULLY RUN IN, MOTOR SHOULD TAKE APPROX. 200 - 250 TURNS.



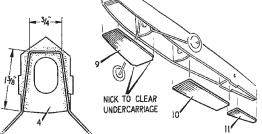
MODEL SHOULD BALANCE AT ABOUT 40% OF WING CHORD AS SHOWN. PLASTICINE MAY BE ADDED TO NOSE OR TAIL TO CORRECT IF NECESSARY Building --



ASSEMBLE FUSELAGE SIDES TO FORMERS 4 AND 5 AND ALLOW TO SET. CEMENT FORMERS 2 AND 3 TOGETHER. JOIN FUSELAGE AT NOSE AND TAIL, FITTING FORMERS 2,3 AND 6 HOLD TOGETHER WITH PINS AND RUBBER BANDS UNTIL SET, MAKING SURE ASSEMBLY IS ACCURATE

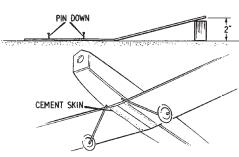


CEMENT FUSELAGE TOP-FRONT AND REAR - IN PLACE, BEVELLING EDGES AS SHOWN TO ENSURE SNUG FIT AND PINNING DOWN TO DRY. WHEN DRY, ROUND OFF TOP EDGE AS SHOWN ON DRAWING AND CEMENT FORMER I IN PLACE

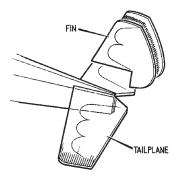


BEND UNDERCARRIAGE TO DIMENSIONS INDICATED AND CEMENT FIRMLY TO FORMER 4. HOLD IN PLACE WITH PINS UNTIL QUITE SET. ADD FUSELAGE BOTTOM-PARTS 9, IO AND II, CUTTING TWO SMALL NICKS IN PART 9 TO CLEAR UNDERCARRIAGE LEGS.

3

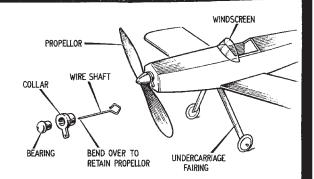


JOIN WINGS TOGETHER BEFORE CEMENTING TO FUSELAGE.PIN ONE WING FLAT TO BOARD AND CEMENT OTHER WING TO IT, PROPPING UP TIP 2" WHEN SET, SMEAR CEMENT OVER JOINT, FORMING SKIN TOP AND BOTTOM. CEMENT TO FUSELAGE.



CEMENT TAILPLANE IN POSITION INTO SLOT IN REAR OF FUSELAGE MAKING SURE IT LINES UP ACCURATELY. CEMENT FIN HALVES TOGETHER AND GLUE IN PLACE ON FUSELAGE, MAKING SURE IT IS UPRIGHT AND AT RIGHT ANGLES TO FUSELAGE.

DESIGNED AND DRAWN BY BRIAN LEWIS



CEMENT UNDERCARRIAGE FAIRINGS TO UNDERCARRIAGE LEGS. ADD ACETATE SHEET WINDSCREEN, CEMENTING FIRMLY INTO POSITION. ASSEMBLE PROPELLOR AND NOSE UNIT AND CHECK THAT IT FITS SNUGLY IN NOSE OF FUSELAGE.

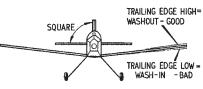
DOWEL PEG

INSTALL RUBBER MOTOR BY MEANS OF A PIECE OF WIRE OR THREAD INSERTED FROM THE TAIL END OF FUSELAGE. SECURE AT REAR END WITH 1/8" DIA. DOWEL PEG.

GENTLY AND OBSERVE FLIGHT PATH. CORRECT

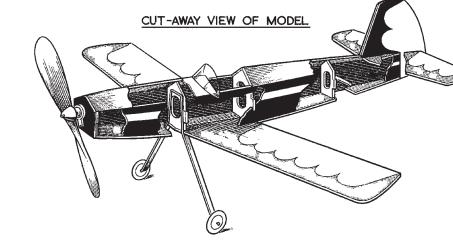
FAULTS BY BENDING ELEVATORS OR BY

ADDING WEIGHT IF REQUIRED



CHECK THAT ALL SURFACES LINE UP TRUE WHEN VIEWED FROM THE FRONT OR FROM ABOVE. WINGS SHOULD BE STEAMED TO INCORPORATE SLIGHT WASHOUT AT TIPS





BEND UP TO CORRECT DIVE

TURN COLLAR TO ADJUST THRUST LINE

BEND DOWN TO CORRECT STALL

STALL

CORRECT

DIVE

TEST FOR GLIDE ON A CALM DAY LAUNCH

COMMENCE FLYING UNDER POWER WITH 50

COMMENCE FLYING UNDER POWER WITH 50
TURNS ON MOTOR ADJUST THRUST LINE TO
PREVENT STALLING CEMENT COLLAR IN
PLACE WHEN BEST SETTING IS FOUND

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