

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.

The wing for this model is flat rather than cambered. That significantly reduces the span wise bending strength. If printing directly on 1/32" balsa, it may be necessary to laminate a second layer of balsa to each wing panel. If using iron on transfer material, consider using 1/20" 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.

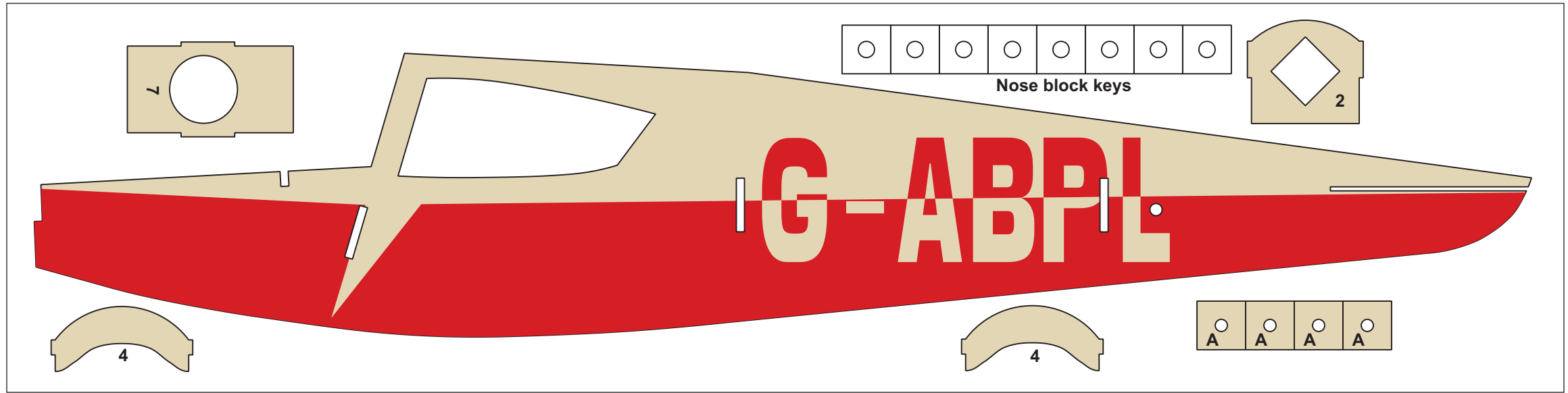
The kit did not include reinforcements for the rear motor peg. The parts in this package include rear motor peg reinforcement parts. Two sets of those parts are included to allow for models built from 1/32" balsa where parts are laminated to be 1/16" in thickness. This has proven to be plenty strong 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. Fuselage former 5 was opened up to provide better motor clearance and to create a more open cabin appearance. This required a minor change to the landing gear configuration and placement.

The markings used for the original 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 color was added to the reproduction model parts.

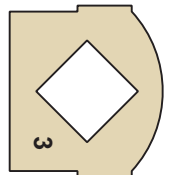
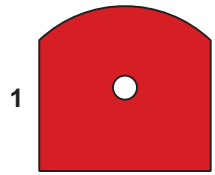
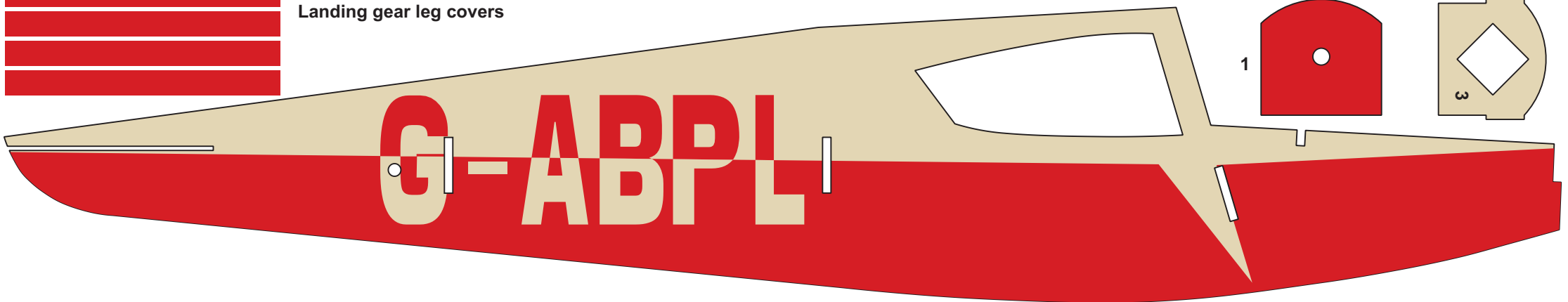
I do hope you build and enjoy a model from this plan package.

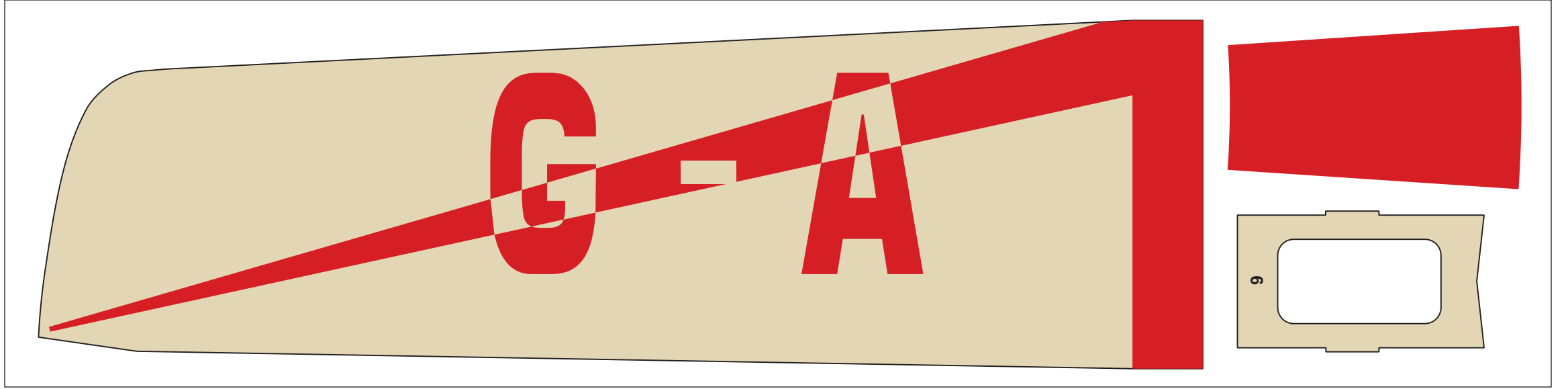
Paul Bradley

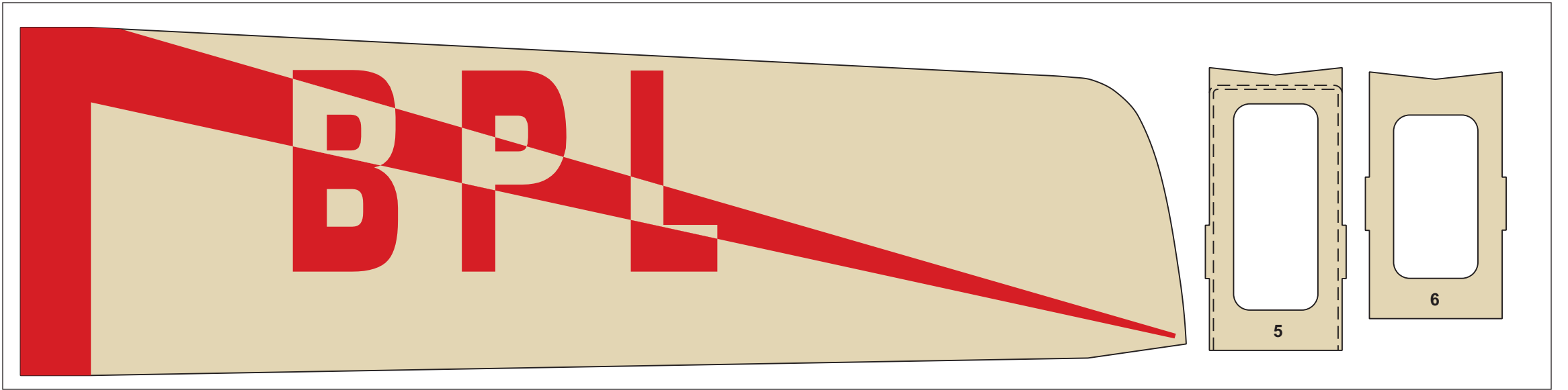


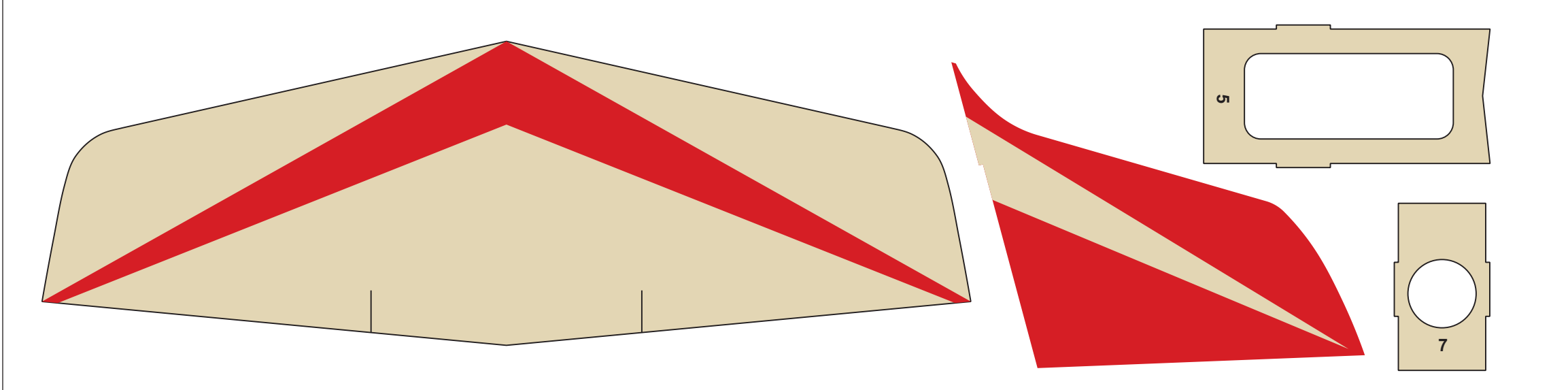


Landing gear leg covers

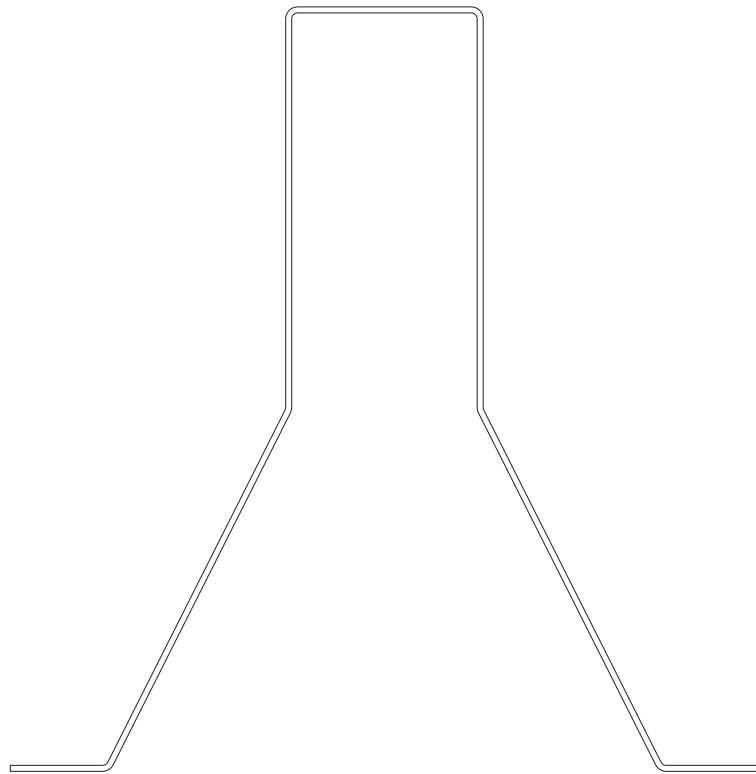




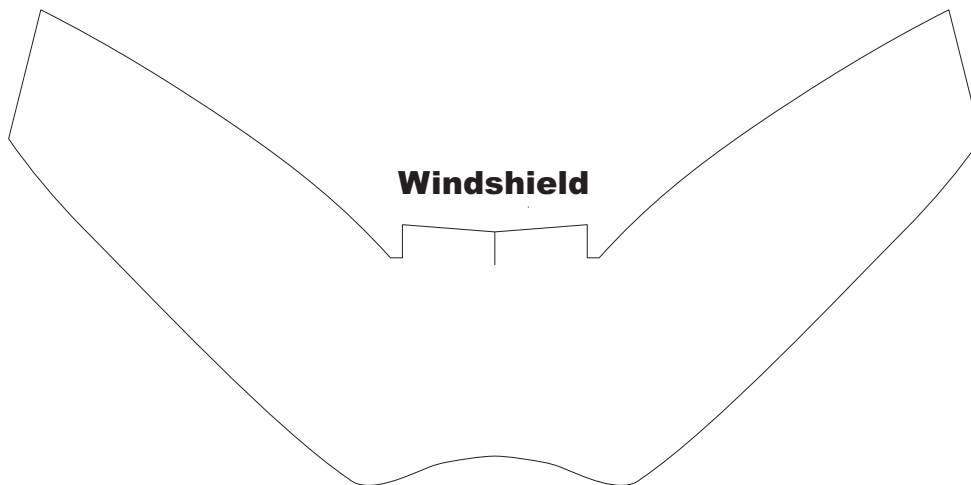




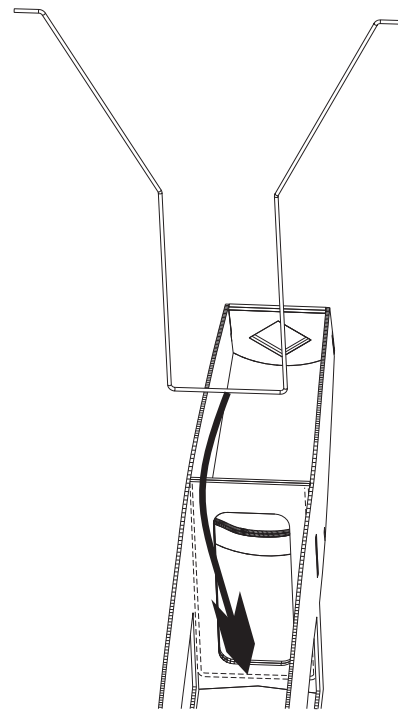




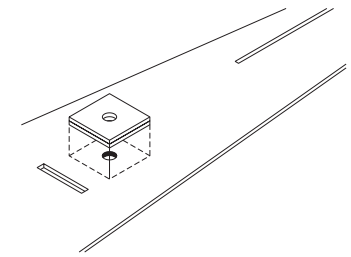
**Landing Gear Pattern - Make from .025 music wire. Use two 3/4" Wheels**



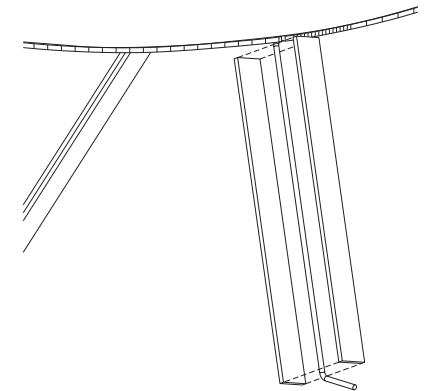
**Windshield**



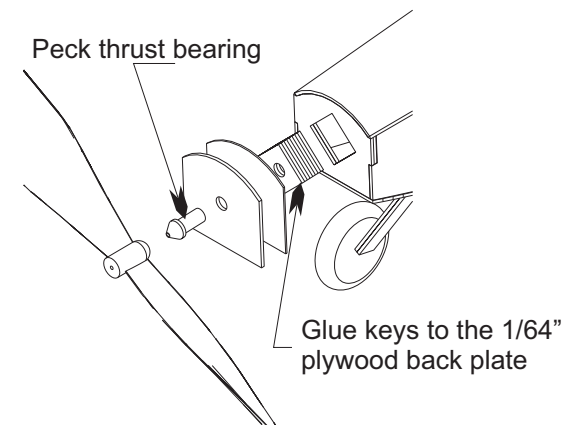
Glue the landing gear legs to the back side of fuselage former 5 rather than the front as shown on the plan.



Parts A have been added to reinforce the fuselage sides around the motor peg holes.



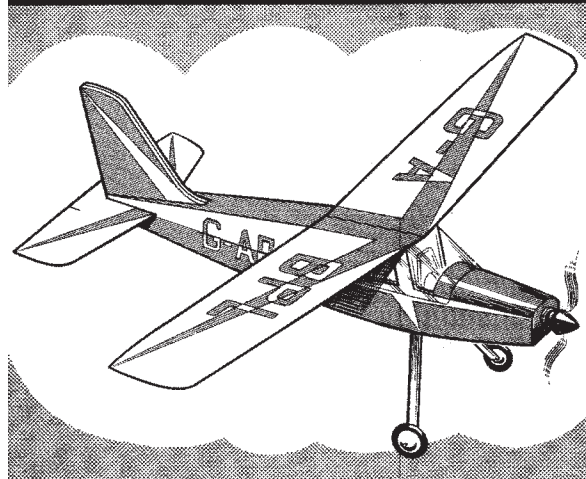
The landing gear covers sandwich the landing gear legs as shown here.



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 the printed balsa piece and a 1/64" plywood backing plate.

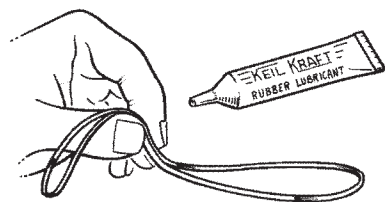
# Keil Kraft EeZe Bilt Sportsman





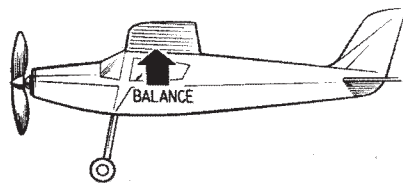
# SPORTSMAN

## Flying ---



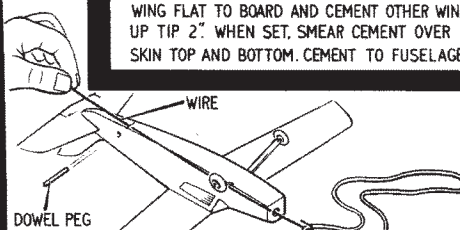
PREPARE RUBBER MOTOR FOR FLYING BY LUBRICATING WITH KEIL KRAFT RUBBER LUBRICANT OR CASTOR OIL. WHEN CAREFULLY RUN IN, MOTOR SHOULD TAKE APPROXIMATELY 200-250 TURNS.

**1**



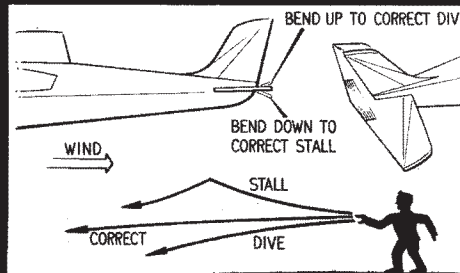
MODEL SHOULD BALANCE AT ABOUT 40% OF WING CHORD FROM THE LEADING EDGE AS SHOWN. PLASTICINE MAY BE ADDED TO NOSE OR TAIL TO CORRECT IF NECESSARY.

**4**



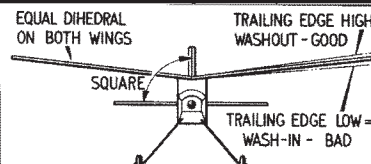
INSTALL RUBBER MOTOR BY MEANS OF A PIECE OF THIN WIRE OR THREAD INSERTED FROM THE TAIL END OF FUSELAGE. SECURE AT REAR END WITH 1/8" DOWEL PEG.

**2**



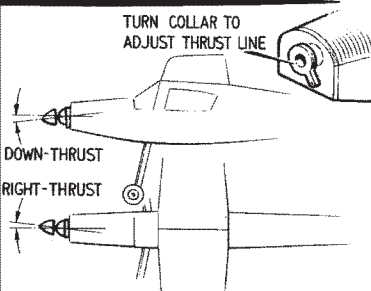
TEST FOR GLIDE ON A CALM DAY. LAUNCH GENTLY AND OBSERVE FLIGHT PATH. CORRECT ANY FAULTS BY BENDING ELEVATORS UP OR DOWN OR BY ADDING WEIGHT IF REQUIRED.

**5**



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

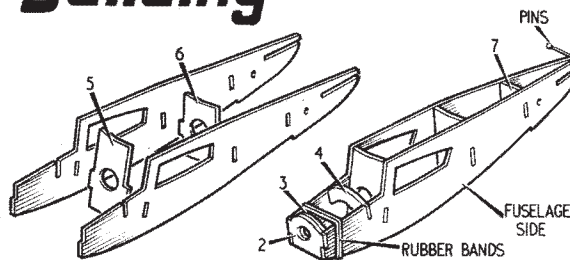
**3**



COMMENCE FLYING UNDER POWER WITH 50 TURNS. ADJUST THRUST LINE TO PREVENT STALLING. CEMENT COLLAR IN PLACE AT BEST SETTING.

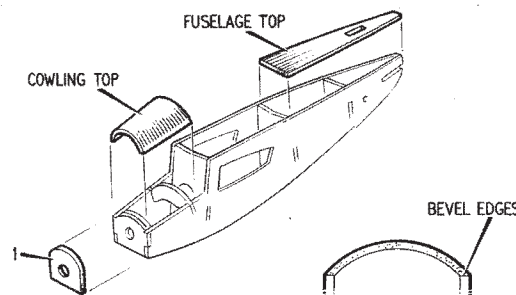
**6**

## Building --



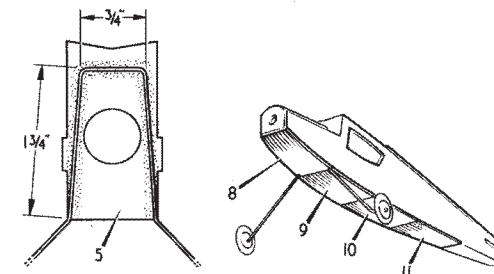
ASSEMBLE FUSELAGE SIDES TO FORMERS 5 AND 6 AND ALLOW TO SET. CEMENT FORMERS 2 AND 3 TOGETHER. JOIN FUSELAGE AT NOSE AND TAIL, FITTING FORMERS 2, 3, 4 AND 7. HOLD TOGETHER WITH PINS AND RUBBER BANDS UNTIL SET, MAKING SURE ASSEMBLY IS TRUE AND SQUARE.

**1**



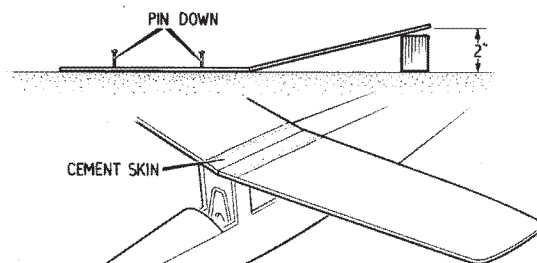
CEMENT FUSELAGE TOP AND COWLING TOP IN PLACE. BEVEL EDGES OF COWLING TOP TO ENSURE A SNUG FIT AND BEND CAREFULLY ROUND FORMERS, HOLDING IN PLACE WITH PINS AND RUBBER BANDS UNTIL DRY. NOW CEMENT FORMER 1 IN PLACE.

**2**



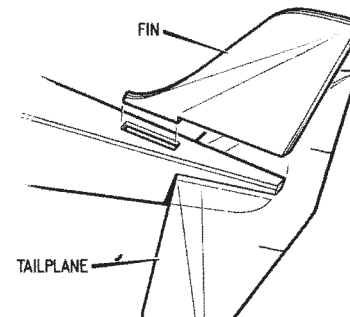
BEND UNDERCARRIAGE TO DIMENSIONS SHOWN AND CEMENT FIRMLY TO FORMER 5. HOLD IN PLACE WITH PINS UNTIL QUITE SET. ADD FUSELAGE BOTTOM - PARTS 8, 9, 10 AND 11, CUTTING TWO SMALL NICKS IN PART 8 TO ACCOMMODATE UNDERCARRIAGE LEGS.

**3**



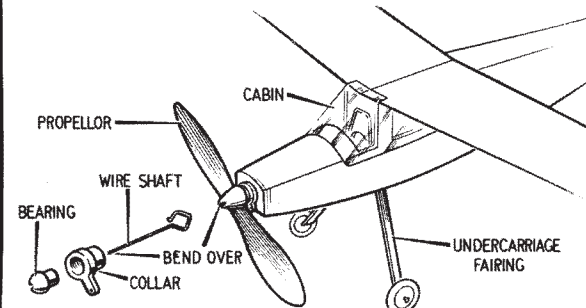
JOIN WINGS TOGETHER BEFORE CEMENTING TO FUSELAGE. PIN ONE WING FLAT TO BOARD AND CEMENT OTHER WING TO IT, PROPPING UP TIP 2". WHEN SET, SMEAR CEMENT OVER JOINT, FORMING SKIN TOP AND BOTTOM. CEMENT TO FUSELAGE.

**4**



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 TAILPLANE.

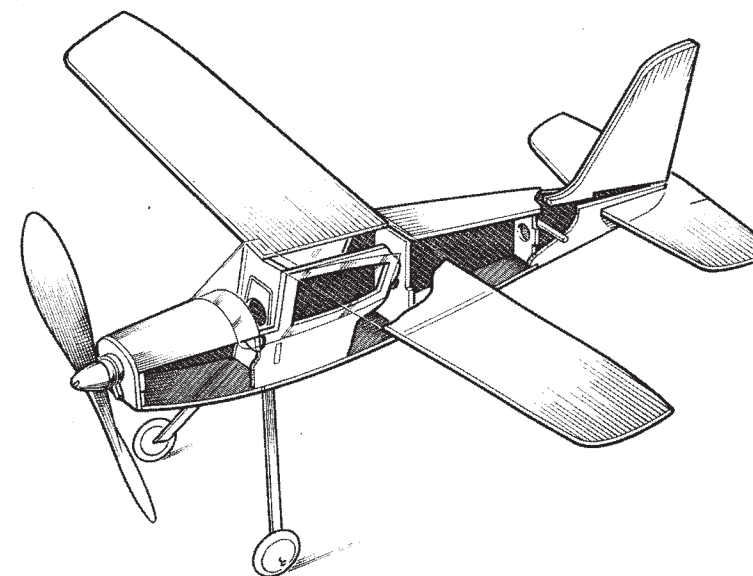
**5**



CEMENT UNDERCARRIAGE FAIRINGS TO UNDERCARRIAGE LEGS, ADD CABIN, USING THE MINIMUM AMOUNT OF CEMENT AND PINNING IN PLACE TO DRY. ASSEMBLE PROPELLOR AND NOSE UNIT AND CHECK FOR FIT IN FRONT OF FUSELAGE.

**6**

DESIGNED AND DRAWN BY BRIAN LEWIS



**KEILKRAFT**

EEZEBILT

*Sportsman*

*flying model*

MADE IN ENGLAND

