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. A colored nose plug has also been drawn. Back the colored nose piece with 1/64” plywood. This assembly will then plug into the opening formed by the fuselage structure. I like to use a Peck thrust bearing for 1/32" prop shafts in the removable nose plug.

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.

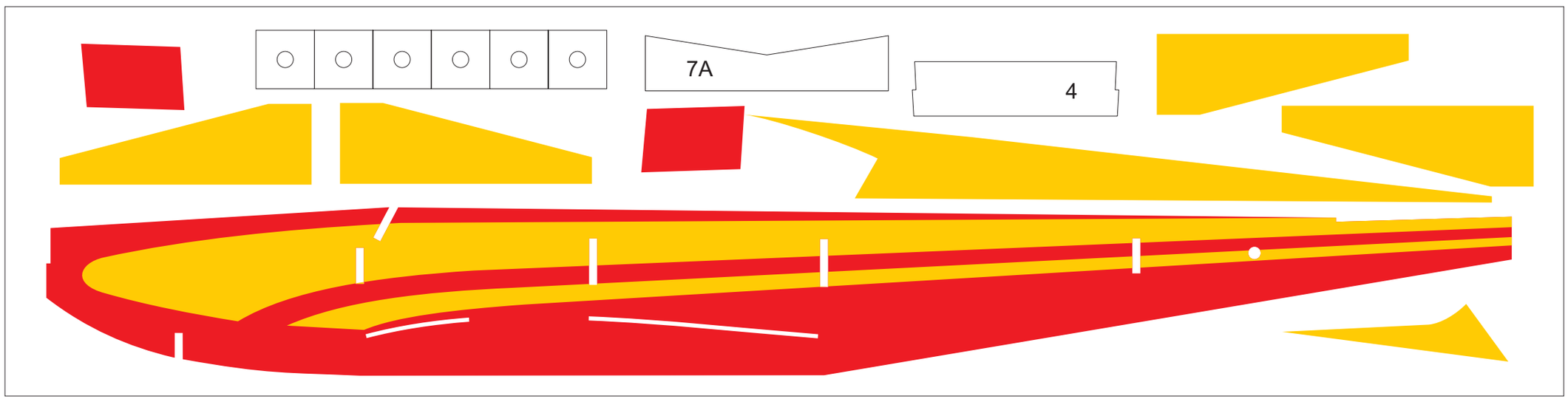
The landing gear parts for the Comanche have been modified from the original kit. This was done to make bending the wire and installation easier. A drawing showing the modified landing gear installation has been provided. The location of the gear legs has been printed on each wing panel. You will see a line with a circle on one end. Push the landing gear wire through the printed circle. The bent wire will line up with the printed line.

A minor change was also made to the bottom fuselage pieces numbered 13 and 14. The original layout had part 14 extending into a curved area with the grain of the part running through the curve. Since bending balsa against the grain is difficult, even on thin sheets and minor curves, I elected to adjust the separation point between the two pieces. This also allowed the joints to be supported by internal fuselage formers. Please note this change when building the fuselage.

The original kit markings used red on bare balsa. The bare balsa was to simulate white paint on the full scale aircraft. I find natural balsa on these models to be a bit drab so I used a deep yellow in the areas that were originally left bare.

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

Paul Bradley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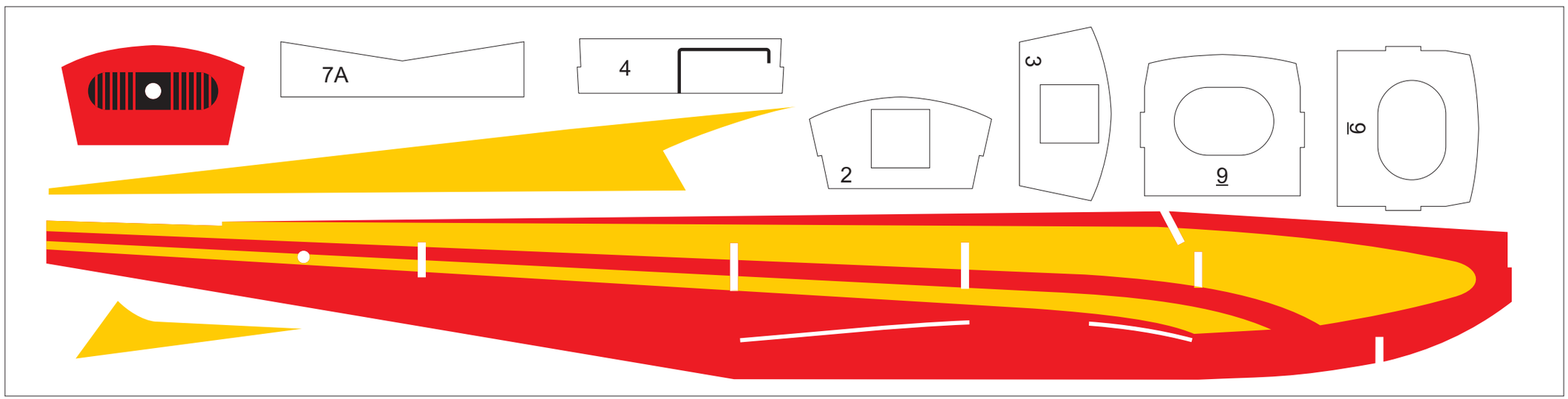
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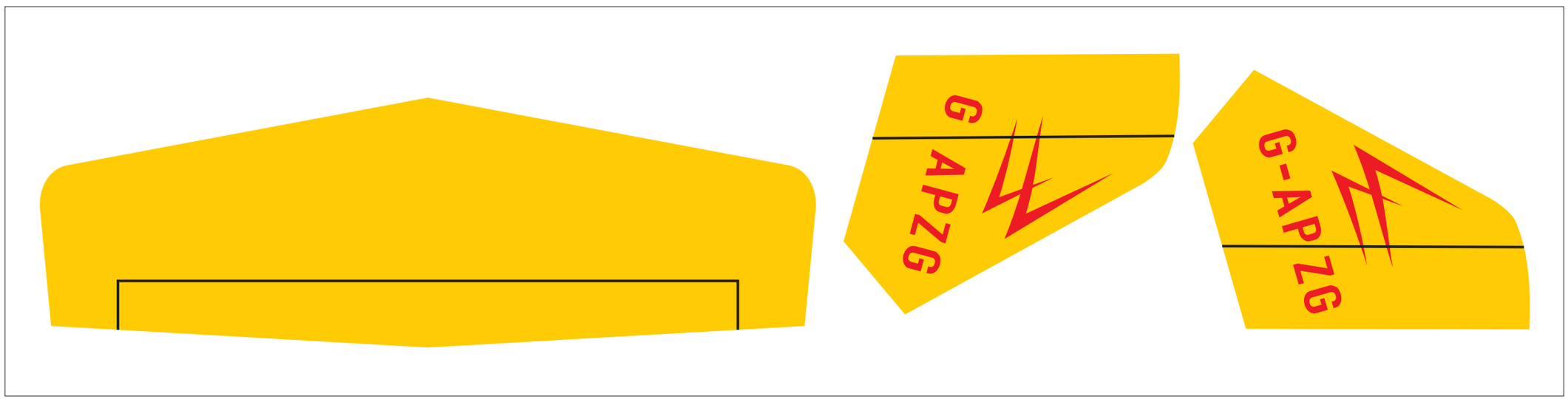
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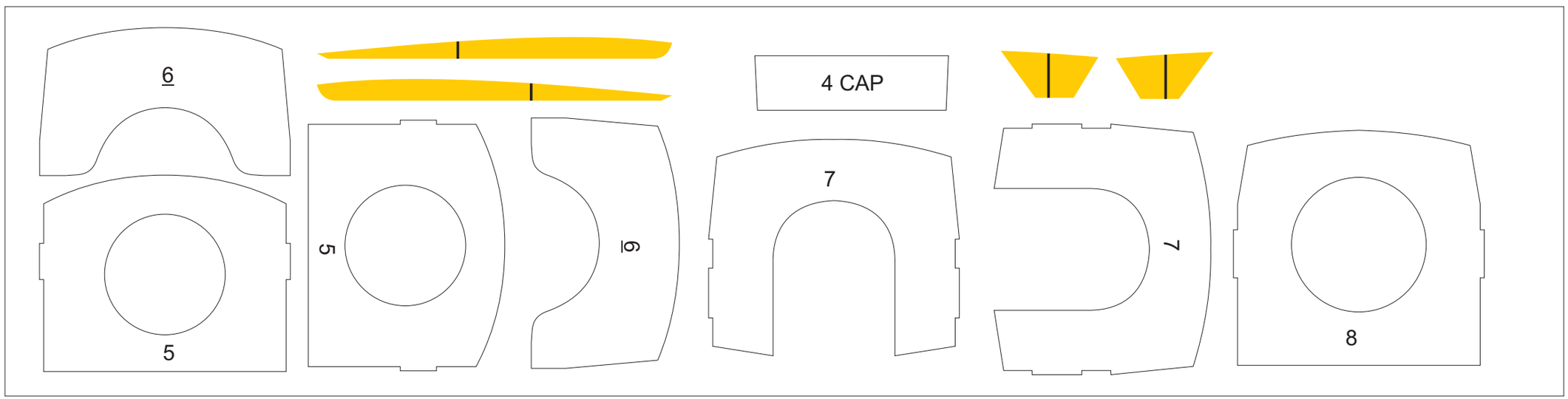
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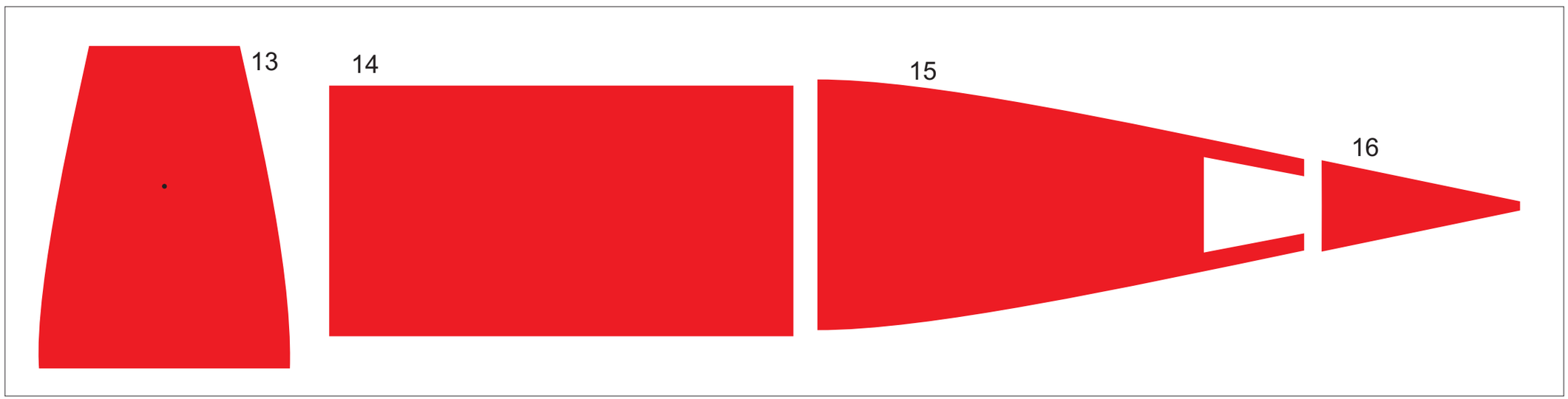
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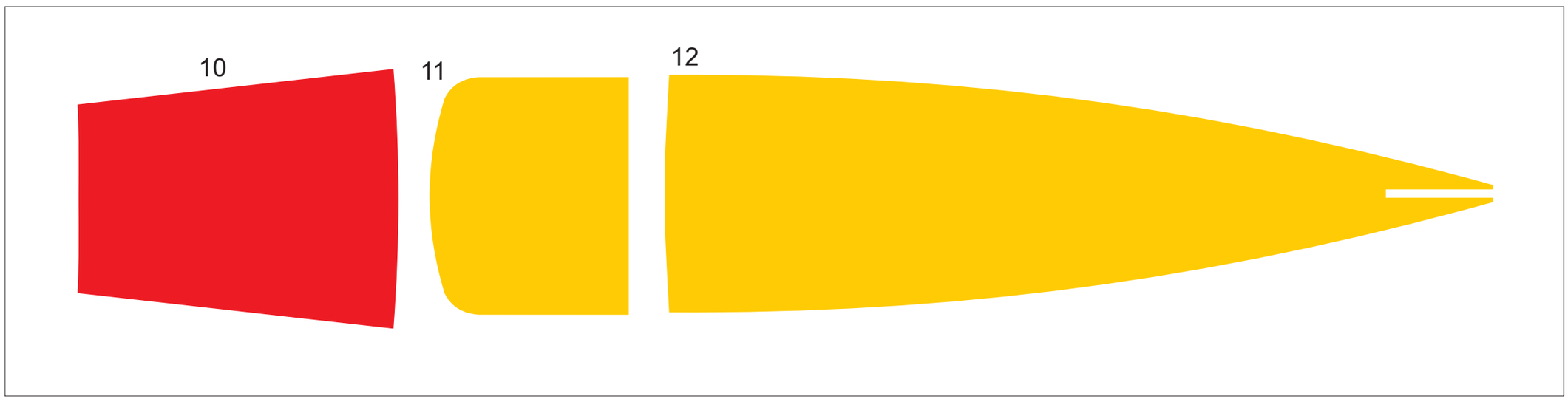
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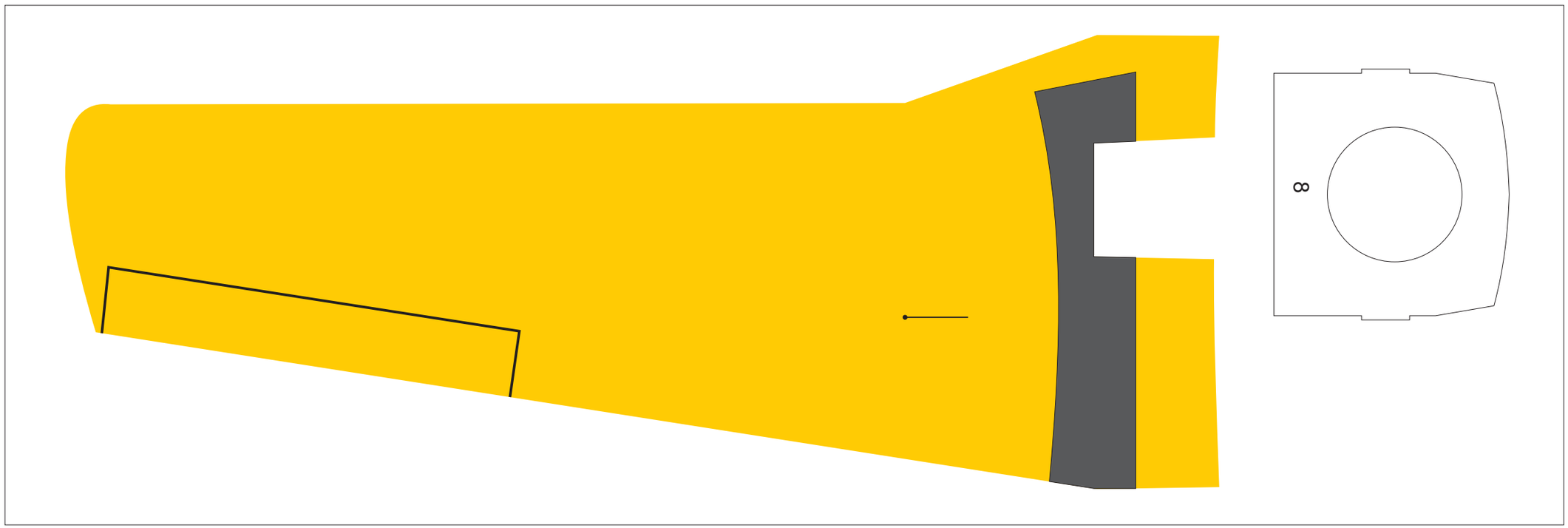
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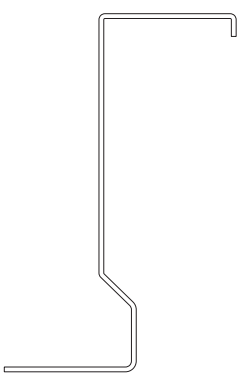
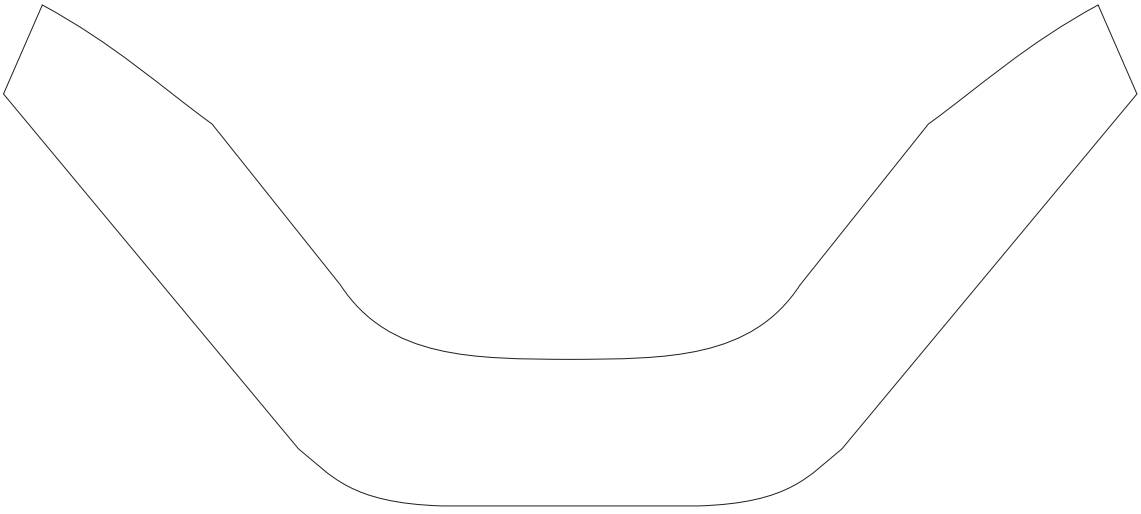


Nose Gear

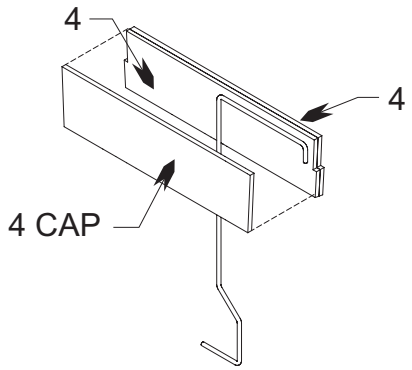
Main Gear

Landing Gear
Make from .025 music wire
Wheels are .75” diameter



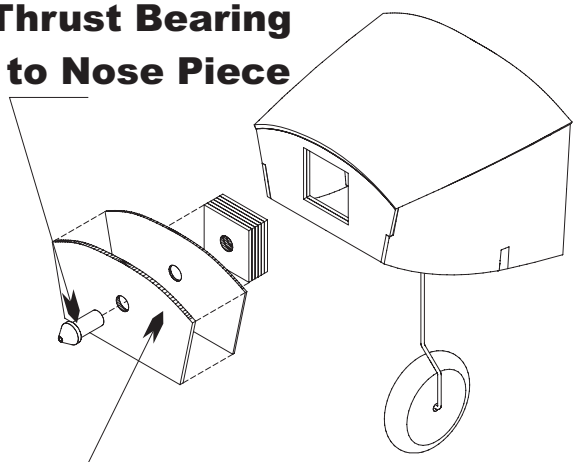
Windshield Pattern

Keil Kraft EeZe Built Comanche

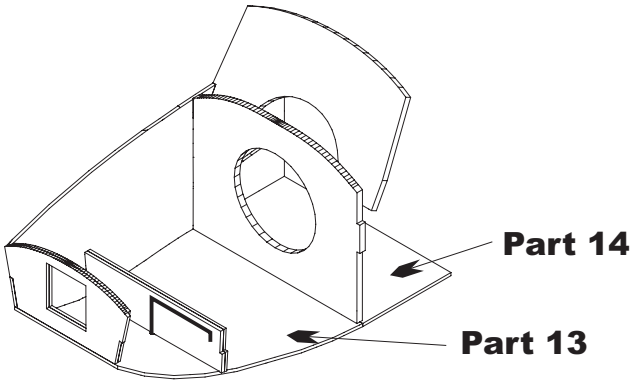


Modification to the nose to allow for a removable noise piece for stretch winding.

Peck Thrust Bearing Glued to Nose Piece



Nose gear mount set up.

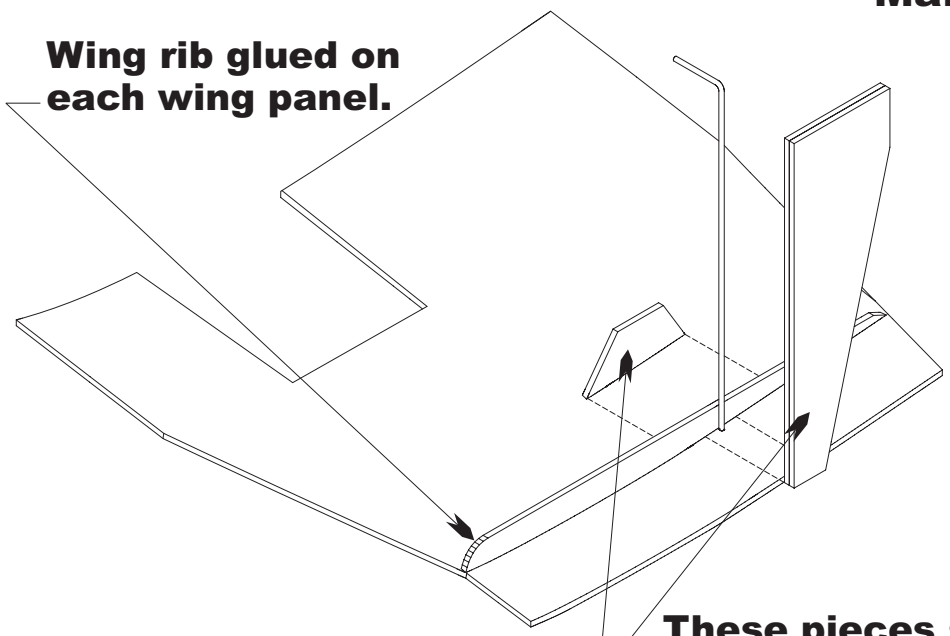


Removable nose piece. Use a piece of 1/64” plywood to back the printed balsa nose piece

Note: Part 13 and 14 now join at former 5. Install part 13 before part 10 and the nose wheel leg. Push the nose wheel leg through Part 13 and cement the leg in place followed by the Part 4 cap.

Main Gear Modification

Wing rib glued on each wing panel.



Landing Gear leg goes through the wing and is cemented on top. Use the printed line and dot on the top of the wing as a location guide.

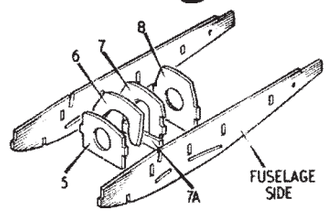
These pieces sandwich the gear leg piano wire. The gear cover is a two piece lamination glued to the rib and the gear leg.

KEILKRAFT **EEZEBILT**

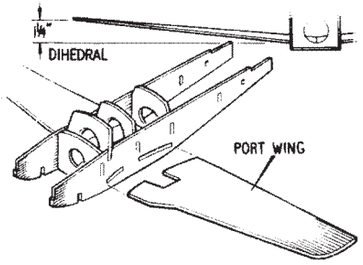
FLYING SCALE SERIES

PIPER COMANCHE

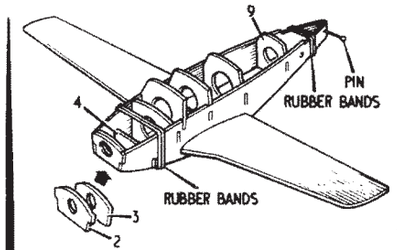
Building - -



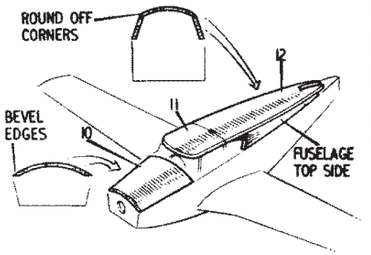
CEMENT FUSELAGE SIDES TO FORMERS 5 7, AND 8. ADD 7A AND FORMER 6. MAKE SURE THAT ASSEMBLY IS SQUARE AND LEAVE TO SET. **1**



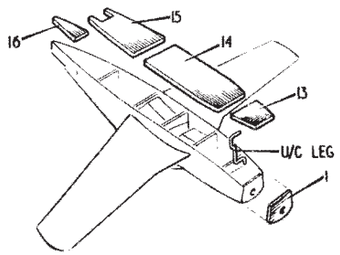
SLIDE WINGS IN PLACE THROUGH SLOTS IN FUSELAGE. CHECK DIHEDRAL AND SECURE BY SQUEEZING CEMENT OVER ALL WING/FUSE--LAGE JOINTS INSIDE FUSELAGE ONLY. **2**



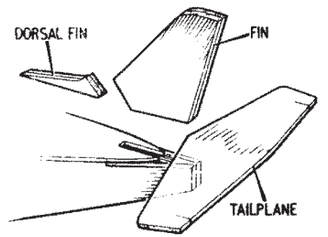
CEMENT FORMERS 2 AND 3 TOGETHER. JOIN FUSELAGE AT NOSE AND TAIL, FITTING FORMERS 2,3,4 AND 8. HOLD TOGETHER WITH PINS OR RUBBER BANDS UNTIL SET. **3**



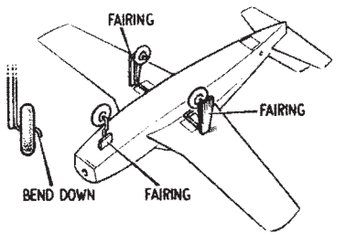
CEMENT PART 10 AND FUSELAGE TOP SIDES IN PLACE AND WHEN DRY, FIT PARTS 11 AND 12. EDGES OF PARTS SHOULD BE BEVELLED AND ROUNDED OFF AS SHOWN ON DRAWING **4**



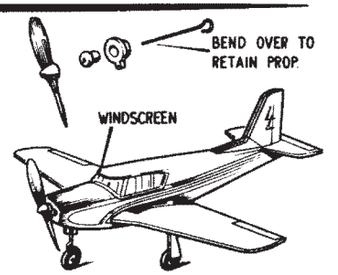
CEMENT FRONT UNDERCARRIAGE LEG IN PLACE AND ADD PARTS 14,13,15 AND 16, PINNING IN PLACE UNTIL DRY. ADD FORMER 1 AND NOSE WHEEL FAIRING. **5**



CHECK THAT TAILPLANE ASSEMBLES SQUARE--LY ON FUSELAGE, THEN CEMENT IN PLACE. JOIN LEFT AND RIGHT HALVES OF FIN TO--GETHER AND CEMENT IN POSITION. **6**

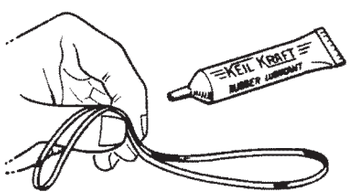


CEMENT UNDERCARRIAGE IN PLACE AND REIN--FORCE BY CEMENTING PIECES OF TISSUE OVER JOINT. FIT WHEELS, RETAINING BY BEND--ING END OF AXLES DOWN. ADD FAIRINGS. **7**

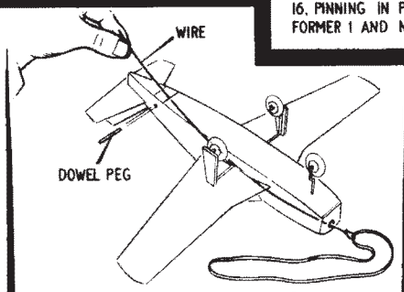


CHECK WINDSCREEN FOR FIT AND CEMENT CAREFULLY IN POSITION, PINNING IN PLACE WHILST DRYING. ASSEMBLE NOSE UNIT AND CHECK FOR FIT IN FUSELAGE. **8**

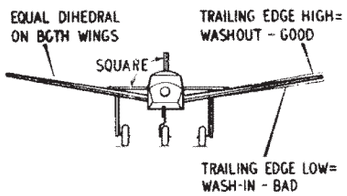
Flying - - -



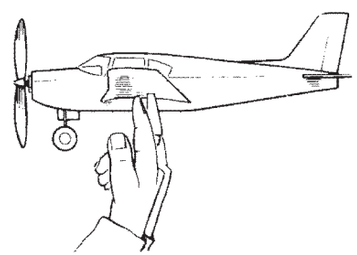
PREPARE RUBBER MOTOR FOR FLYING BY LUBRICATING WITH RUBBER LUBRICANT OR CASTOR OIL. CAREFULLY RUN IN, MOTOR SHOULD TAKE APPROX. 200 - 250 TURNS. **1**



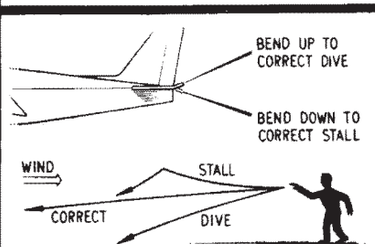
INSTALL RUBBER MOTOR BY MEANS OF A PIECE OF WIRE OR THREAD INSERTED FROM THE TAIL END OF FUSELAGE. SECURE AT REAR END WITH 1/8" DOWEL PEG. **2**



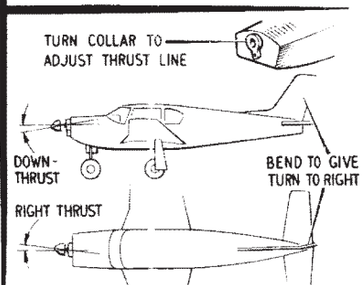
CHECK THAT ALL SURFACES LINE UP TRUE WHEN VIEWED FROM THE FRONT OR FROM ABOVE. WINGS SHOULD BE STEAMED TO INCORPORATE SLIGHT WASHOUT AT TIPS. **3**



MODEL SHOULD BALANCE AT ABOUT 50% OF WING CHORD AS SHOWN. PLASTICINE MAY BE ADDED TO NOSE OR TAIL TO CORRECT IF NECESSARY. **4**



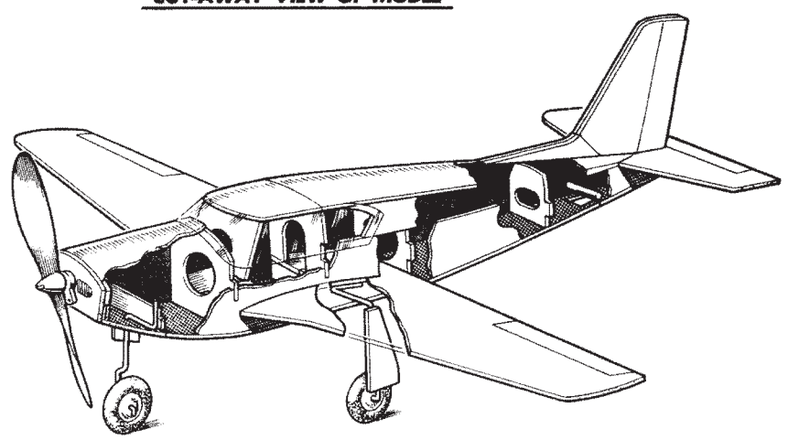
TEST FOR GLIDE ON A CALM DAY. LAUNCH GENTLY AND OBSERVE FLIGHT PATH. CORRECT FAULTS BY BENDING ELEVATORS OR BY ADDING WEIGHT IF REQUIRED. **5**



COMMENCE FLYING UNDER POWER WITH 50 TURNS ON MOTOR. ADJUST THRUST LINE TO PREVENT STALLING. CEMENT COLLAR IN PLACE WHEN BEST SETTING IS FOUND. **6**

Please note that changes have been made to the landing gear arrangement and to fuselage parts 13 and 14. Refer to the building notes.

CUT-AWAY VIEW OF MODEL



KEIL KRAFT

MADE IN ENGLAND USING BALSA BY

BOLARBO

* THIS MODEL IS SUITABLE FOR AGES 10 YEARS AND OVER *

PIPER COMANCHE

EEZEBILT

18" (455mm) SPAN FLYING MODEL

CE