

LIGHT FIGHTER

designed by
DAVE PHILPOTS.

RCM&E PLANS SERVICE

A 40" WINGSPAN SPORTS MODEL WHICH MAY BE BUILT AS A GLIDER OR FOR ELECTRIC POWER OR FOR SIZE 10 TWO STROKE ENGINES.

DRY WEIGHT 28oz.
POWER OS 10 fsr
PROP. 7x5GRAUPNER.

CONTROL MOVEMENTS:-
AILERON 3/4" UP & DOWN
ELEVATOR 1/2" UP & DOWN
RUDDER 1" EACH WAY.
ALL RIGGING ANGLES ZERO

BLOCK OFF CUT OUTS
IN PROP. SPINNER
FILL & PAINT.

FILL SPINNER WITH LEAD
SHOT OR CLIPPINGS &
EPOXY IN PLACE.
HARDWOOD DOWEL
(BROOM HANDLE OFFCUT.)

1/8" BIRCH PLY ENGINE PLATE
EDGE WITH BALSAS TO BLEND
WITH COWL BLOCKS.

WHEELS OPTIONAL, IF NOT FITTED REPLACE
U/C MOUNTING WITH 1/8" LITEPLY BRACE.

1/8" PLANKING BACK
TO F1

ACETATE CANOPY

1/16" COCKPIT FLOOR

REMOVE F7 ABOVE THIS LINE AFTER
CUTTING COCKPIT APATURE

F8-F10 3/32" SHEET

BALSAS FAIRING EACH SIDE
SAND TO SHAPE & BLEND
AFTER MASKING FIN FOR
PROTECTION.

AERIAL EXIT

1/8" LITEPLY
REINFORCING PLATE

COMMERCIAL RUDDER CONTROL
HORN

3/4" DIA. TAILWHEEL

16s.w.g. LEG

WHITE GLUE TAILWHEEL LEG
INTO ALLOY TUBE. WHEN DRY
LEG CAN BE FREED UP &
WILL ROTATE BUT NOT FALL
OUT.

TAILPLANE & FIN FROM 3/16"-1/4" GRAIN
LIGHT BALSAS.
NOTE: USE HARD BALSAS IF CHOSEN
ENGINE IS SUBSTANTIALLY HEAVIER THAN
OS 10, OR LET LEAD SHEET INTO FIN
TO BALANCE.

UNDERCARRIAGE FROM 3 PIECES
OF 12s.w.g. PIANO WIRE
A TO A, B TO B, C TO C.
BIND WITH FLOWER WIRE & SOLDER.

UNDERCARRIAGE DETAIL
(OPTIONAL ON GLIDER & ELECTIC VERSIONS,
REPLACE MOUNT WITH LITEPLY BRACE.)

WINGPLATE - LAMINATION OF 2x1/8" LITEPLY
REINFORCE THREAD WITH CYANO.

TRIM SULLIVAN RED SNAKE
OUTERS FLUSH WITH
FUSELAGE SURFACE.

COMMERCIAL ELEVATOR
CONTROL HORN.

BALSAS INFILL
BETWEEN SIDES

DRILL OUT SMALL HOLE IN
F10 & OPEN OUT FOR BOTH
SNAKES AFTER PLANKING

PIN ALL MYLAR
HINGES.

16s.w.g. JOINER

DETAIL OF GLIDER VERSION NOSE

1/2" DIA. HOLES IN
F1 & F3.

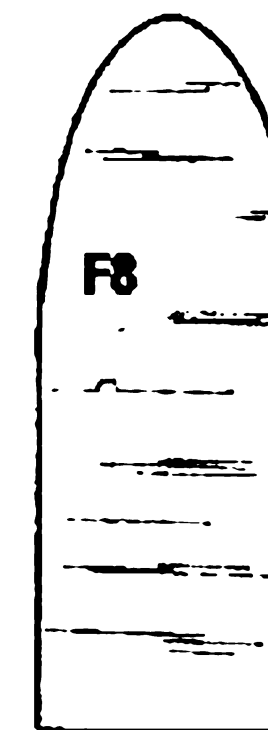
RECEIVER

FOAM

IF PREFERRED MICRO SERVO'S MAY BE
REPLACED BY FULL SIZE COMPONENTS.
- R RUDDER SERVO (IF REQUIRED) FITTED
IN / SIMILAR FASHION ADJACENT TO F6

F7

1/8" SHT.



F8-F10 3/32" SHEET

ALL WOOD LIGHT BALSAS UNLESS STATED OTHERWISE.

F1/F2 1/8" LITEPLY.



EXTRA CELL TAPED
ON & WIRE
CONNECTED.

NICAD POWER PACK DETAIL

STANDARD 6 CELL
NICAD PACK HELD IN
PLACE BY SCRAP BALSAS BLOCKS.

CUT F5 & F6 TO THIS LINE
AFTER ASSEMBLY.

ELASTIC BANDS PREVENT PLY
SERVO MOUNT MOVING BACKWARDS.

BALSAS FAIRING
GLUED TO WING
U/C RETAINED BY
SOLARTEX PATCH

NOTE: CESS AFT PLY SUPPORT
TO CLEAR U/C CROSS MEMBER

1/32" PLY PLATE OR ALLOY WASHER
WING BOLT OR S/T SCREW.

WHITE GLUE TAILWHEEL LEG
INTO ALLOY TUBE. WHEN DRY
LEG CAN BE FREED UP &
WILL ROTATE BUT NOT FALL
OUT.

CUT F1 & F2 AS
OCTAGONAL BLANKS
SAND ON ASSY.

1/2" DIA. HOLES IN F3 & F4.

SPEED CONTROL
OR RELAY SW.

FOAM

FOAM

RECEIVER

7 CELL NICAD PACK.
SEE DETAIL SKETCH.

1/8" LITEPLY CROSS MEMBER
MAY MOUNT CHARGING SOCKET
& ON OFF SWITCH.

1/16" LITEPLY BATTERY PLATE
CLOSE FIT BETWEEN SIDES

ALTERNATIVE METHOD OF
SECURING SERVO'S. ATTACH
TO PLY DOUBLERS WITH
SERVO TAPE AFTER SEALING
PLY WITH CYANO.

UNDERCARRIAGE DETAIL
(OPTIONAL ON GLIDER & ELECTIC VERSIONS,
REPLACE MOUNT WITH LITEPLY BRACE.)

WINGPLATE - LAMINATION OF 2x1/8" LITEPLY
REINFORCE THREAD WITH CYANO.

TRIM SULLIVAN RED SNAKE
OUTERS FLUSH WITH
FUSELAGE SURFACE.

COMMERCIAL ELEVATOR
CONTROL HORN.

BALSAS INFILL
BETWEEN SIDES

DRILL OUT SMALL HOLE IN
F10 & OPEN OUT FOR BOTH
SNAKES AFTER PLANKING

PIN ALL MYLAR
HINGES.

16s.w.g. JOINER

DETAIL OF ELECTRIC POWER VERSION NOSE

FACE IN 1/8" PLY

1/8" LITEPLY MOUNTING RAILS
GLUED TO FUSELAGE SIDES

ALTERNATIVE METHOD OF
SECURING SERVO'S. ATTACH
TO PLY DOUBLERS WITH
SERVO TAPE AFTER SEALING
PLY WITH CYANO.

UNDERCARRIAGE DETAIL
(OPTIONAL ON GLIDER & ELECTIC VERSIONS,
REPLACE MOUNT WITH LITEPLY BRACE.)

WINGPLATE - LAMINATION OF 2x1/8" LITEPLY
REINFORCE THREAD WITH CYANO.

TRIM SULLIVAN RED SNAKE
OUTERS FLUSH WITH
FUSELAGE SURFACE.

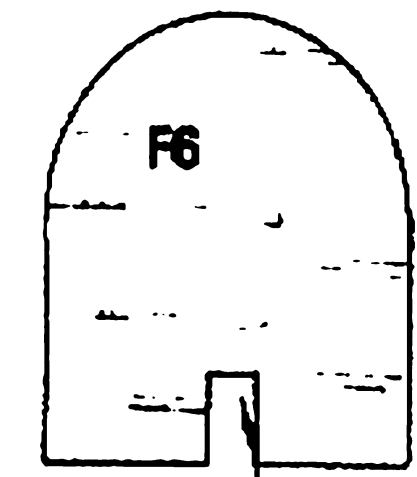
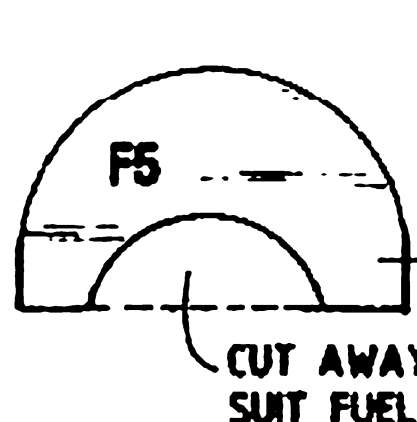
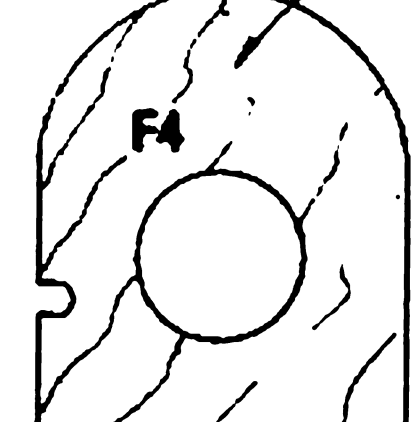
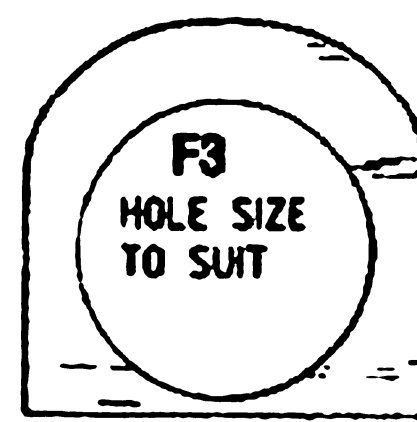
COMMERCIAL ELEVATOR
CONTROL HORN.

BALSAS INFILL
BETWEEN SIDES

DRILL OUT SMALL HOLE IN
F10 & OPEN OUT FOR BOTH
SNAKES AFTER PLANKING

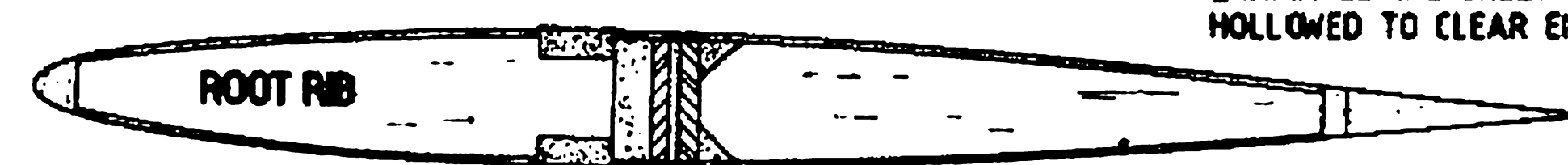
PIN ALL MYLAR
HINGES.

16s.w.g. JOINER



SLOT FOR SERVO LEADS ETC.

FORMERS F3-F6 - 1/8" SHEET



ROOT RIB

SOLDER ENGINE MOUNTING
SCREWS TO BRASS STRIP
& HOLLOW BALSAS SHEET
TO CLEAR.

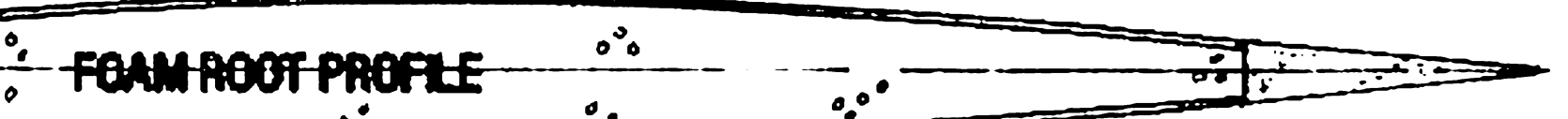
1/32" SCRAP BLEND

LAMINATED 1/2" SHEET
HOLLOWED TO CLEAR ENGINE.

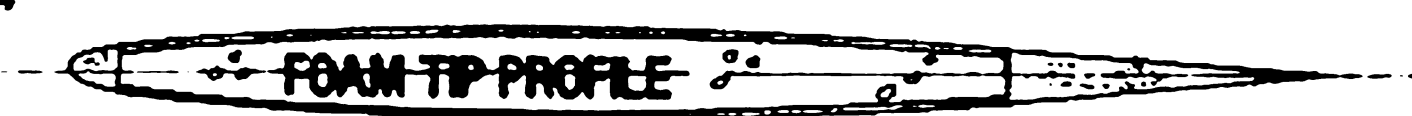
FIT FORMERS F4 & F5, JOIN FUSELAGE
SIDE ASSEMBLIES BEFORE FITTING REST
OF FORMERS.

3/8" SQ. HARD BALSAS
SERVO RAILS GLUED TO
FUSELAGE SIDES.

NOTE: WINGS ARE REINFORCED AT THE CENTRE JOINT WITH 4"
4" WIDE STRIP OF SOLARTEX, NO G/F NECESSARY.
START AT FRONT, WRAP ROUND T.E. & FINISH AT FRONT.



FOAM ROOT PROFILE



FOAM TIP PROFILE

3/16" DIA. LOCATING DOWEL

1/32" PLY

BALSAS INFILL

1/16" PLY BRACES
FRONT & REAR OF U/C SUPPORT

1/32" LEADING EDGE SHEETING
FROM SOFT BALSAS SECURED BY
75/25% COPYDEX/WATER MIX.

1/8" LITEPLY
U/C SUPPORTS.

1/32" BALSAS
STRIPS.

FOAM CORE WING

THIN CYANO FOR WOOD TO WOOD
EDGE JOINTS

LIGHT BALSAS BLOCK
TIPS.

ALTERNATIVE BUILT UP WING.

3/32" SHEET
WING RIBS,
PRODUCE BY
THE SANDWICH
METHOD

ENTIRE WING
SKINNED IN
1/16" SHEET

SURFACE MOUNTED PLY SERVO RAILS.

SCRAP SH. TUBE
SUPPORTS.

CUT AWAY TO CLEAR AILERON HORNS

1/8" LITEPLY BRACE

1/2" x 3/8" TRAILING EDGE & AILERON
- GROOVE FOR TORQUE ROD AS REQUIRED.

14s.w.g. AILERON TORQUE RODS

NOTE: WING PANELS JOINED INVERTED
GIVING FLAT TOP SURFACE
i.e. WING TAPER GIVES ONLY
DHMEDRAL ON BOTTOM SURFACE.

