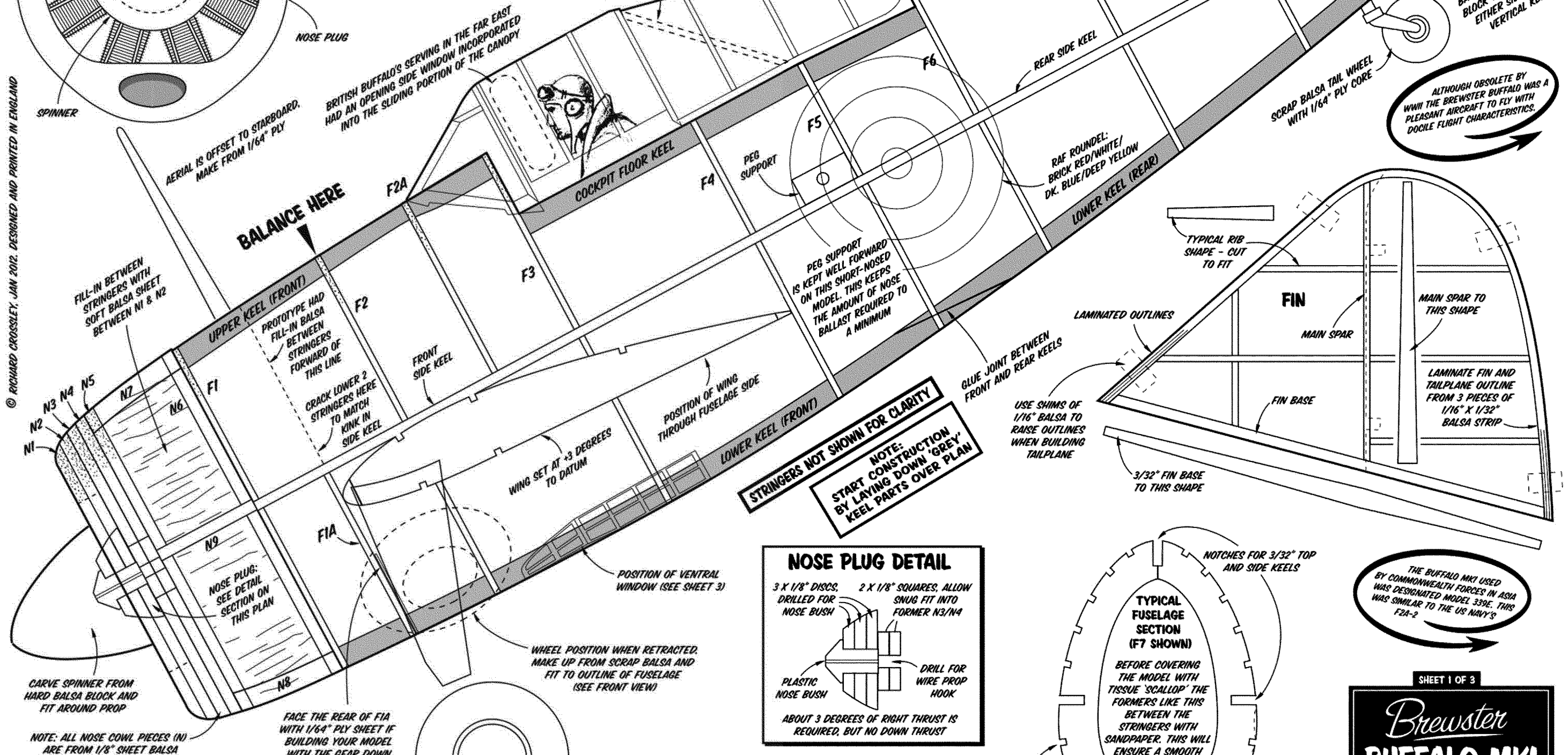


**TIP! PANEL LINES**  
 FOR ADDED REALISM, THE NUMEROUS PANEL LINES AND CONTROL SURFACE OUTLINES CAN BE INKED ON AFTER THE MODEL IS PAINTED. BY FAR THE BEST PENS TO USE FOR THIS ARE TRADITIONAL 'ROTRING' RAPIDOGRAPH PENS. THESE PENS GLIDE EFFORTLESSLY OVER GLOSS OR MATT SURFACES GIVING A PRECISE, PERMANENT LINE. I USED A 0.25 SIZE AND A 0.35 SIZE ON MY MODEL

FOR A LIGHTER MODEL YOU CAN USE 1/16" SHEET FOR THE KEELS, AND 1/20" SHEET FOR THE REAR FORMERS (F5 - F9)



© RICHARD CROSSLEY, JAN 2012. DESIGNED AND PRINTED IN ENGLAND

THE BUFFALO MKI USED BY COMMONWEALTH FORCES IN ASIA WAS SIMILAR TO THE US NAVY'S F2A-2

1/18 SCALE 23.5 INCH WINGSPAN

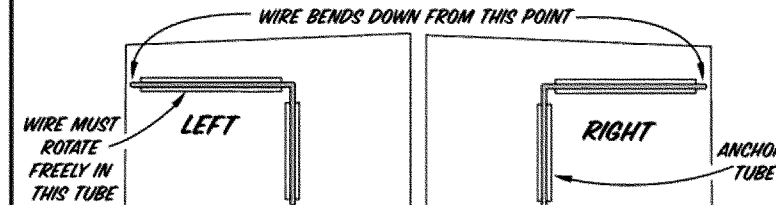
TRAILING EDGE IS CUT FROM 3/32" SHEET. NOTE NOTCHES TO TAKE RIBS.

AILERON AND FLAP LINES CAN BE INKED ON TOP SURFACE SHOWN ON LEFT WING, BOTTOM ON RIGHT WING

**TIPS** WRINKLES...  
...WE ALL GET THEM! IF YOU HAVE ANY ANNOYING WRINKLES IN THE COVERING WHEN YOU HAVE COMPLETED YOUR MODEL, SIMPLY CUT OUT THE AFFECTED AREA WITH A SHARP BLADE AND COVER WITH A TISSUE PATCH. AFTER DOPING AND PAINTING THE PATCH WILL BE INVISIBLE

**LANDING GEAR PLATES**

WIRE BENDS DOWN FROM THIS POINT



MAKE UP ONE FOR EACH WING FROM 1/16" SHEET Balsa. THESE ARE SHOWN FROM ABOVE HERE, SO THE WIRE AND TUBES ARE FIXED TO THE UNDERSIDE.

© RICHARD CROSSLEY, JAN 2012. DESIGNED AND PRINTED IN ENGLAND

SHEET 2 OF 3

**Brewster BUFFALO MK1**

DESIGNED AND DRAWN BY  
*Richard Crossley*

**LEFT WING**

POSITION OF RAF ROUNDEL ON TOP OF BOTH WINGS. BRICK RED CENTRE, DK. BLUE OUTER

NOTE SCRAP 3/32" SHEET Balsa TRAILING EDGE JOINT

NOTE THAT R1 RIBS ARE AN UNUSUAL SHAPE TO ALLOW CLEARANCE FOR RUBBER MOTOR

R1

R2

CRACK FRONT 2 TOP SPARS DOWN AT 'R2' POSITION

R3

R4

R5

R6

R7

R8

WT2

WT1

FUSELAGE SIDE

LANDING GEAR PLATE FITS BETWEEN RIBS

LEADING EDGES: CUT FROM SOFT 3/16" SHEET Balsa. CUT TO THIS PATTERN

**DIHEDRAL GAUGE**

USE THIS TO 'LEAN' CENTRE RIBS

WT2

WT1

**RIGHT WING**

LOWER 1/16" SQUARE SPARS IN THESE POSITIONS ONLY

1/16" SQUARE SPARS

R8

R7

R6

R5

R4

R3

R2

R1

LAMINATE TAILS AROUND FORMER. THIS CAN BE CUT FROM 2MM MOUNT BOARD OR 1/16 Balsa. CUT THE FORMER TO THE INSIDE LINE SHOWN HERE

**TAILPLANE**

TYPICAL RIB SHAPE CUT TO FIT

CUT LEADING EDGES FROM SOFT 3/16" Balsa SHEET TO THIS PATTERN

**FRONT VIEW OF LEFT WING**

NOTE TIPS ARE ANGLED UP

CHAMFER LEADING AND TRAILING EDGES AFTER CONSTRUCTION TO ALLOW WING TO PASS THRU' FUSELAGE

USE SHIMS OF 1/16" Balsa TO RAISE OUTLINES WHEN BUILDING TAILPLANE

# Brewster BUFFALO MKI

DESIGNED AND DRAWN BY  
*Richard Crossley*

## TORSION UNDERCARRIAGES

THE BENEFIT OF USING A TORSION SPRUNG LANDING GEAR IS THAT MOST OF THE LANDING IMPACT IS TAKEN UP BY THE TWISTING MOTION OF THE WIRE IN THE TORQUE TUBE. THIS MEANS THAT THE WIRE LEGS WILL NOT DISTORT, AND ALL OF THE NICE GEAR DETAIL AND DOORS WILL NOT PING OFF EVERY TIME YOUR MODEL 'LANDS'.

FOR A SUPERIOR RESULT USE  
**ESAKI**  
TISSUE FOR COVERING  
YOUR MODEL

**TIP!**

WIRE BENDS BACK THROUGH 90 DEG. AND IS EPOXIED THROUGH SECONDARY SPACER TUBE

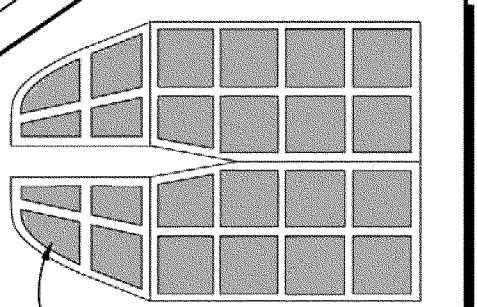
.50 CALIBRE MACHINE GUN OUTLETS

COWL DETAIL

EXHAUST STUB BOTH SIDES (MAKE FROM SCRAP Balsa)

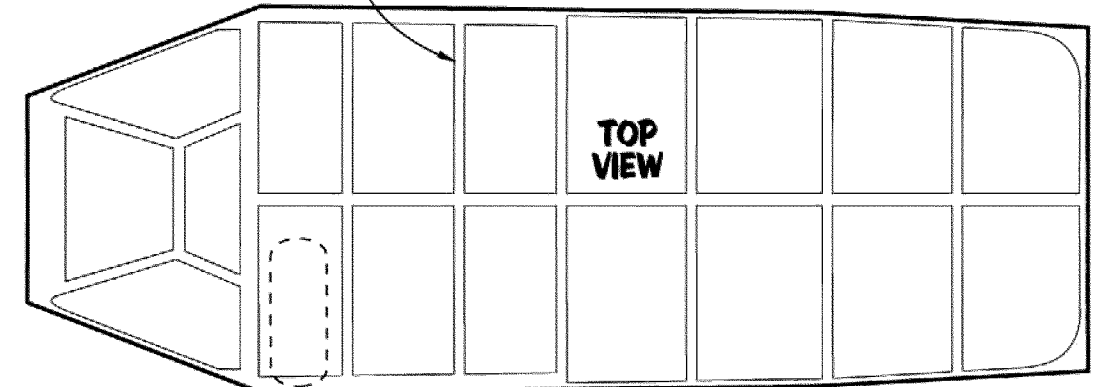
HOLLOWED BLOCK Balsa

THE BREWSTER XF2A-1 MADE ITS FIRST FLIGHT IN DECEMBER 1932. TOP SPEED WAS 295 MPH. THE XF2A-2 HAD A TOP SPEED OF 340 MPH.



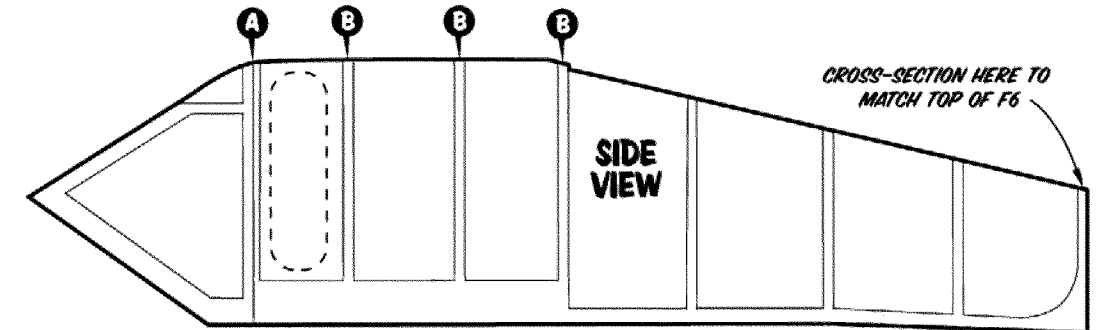
THE BUFFALO FEATURED A VENTRAL WINDOW TO GIVE THE PILOT DOWNWARD VISIBILITY THIS WAS NORMALLY PAINTED OVER IN COMMONWEALTH SERVICE

NO VERTICAL FRAME LINES ON SLIDING PART OF CANOPY ON F2A-3 VERSION



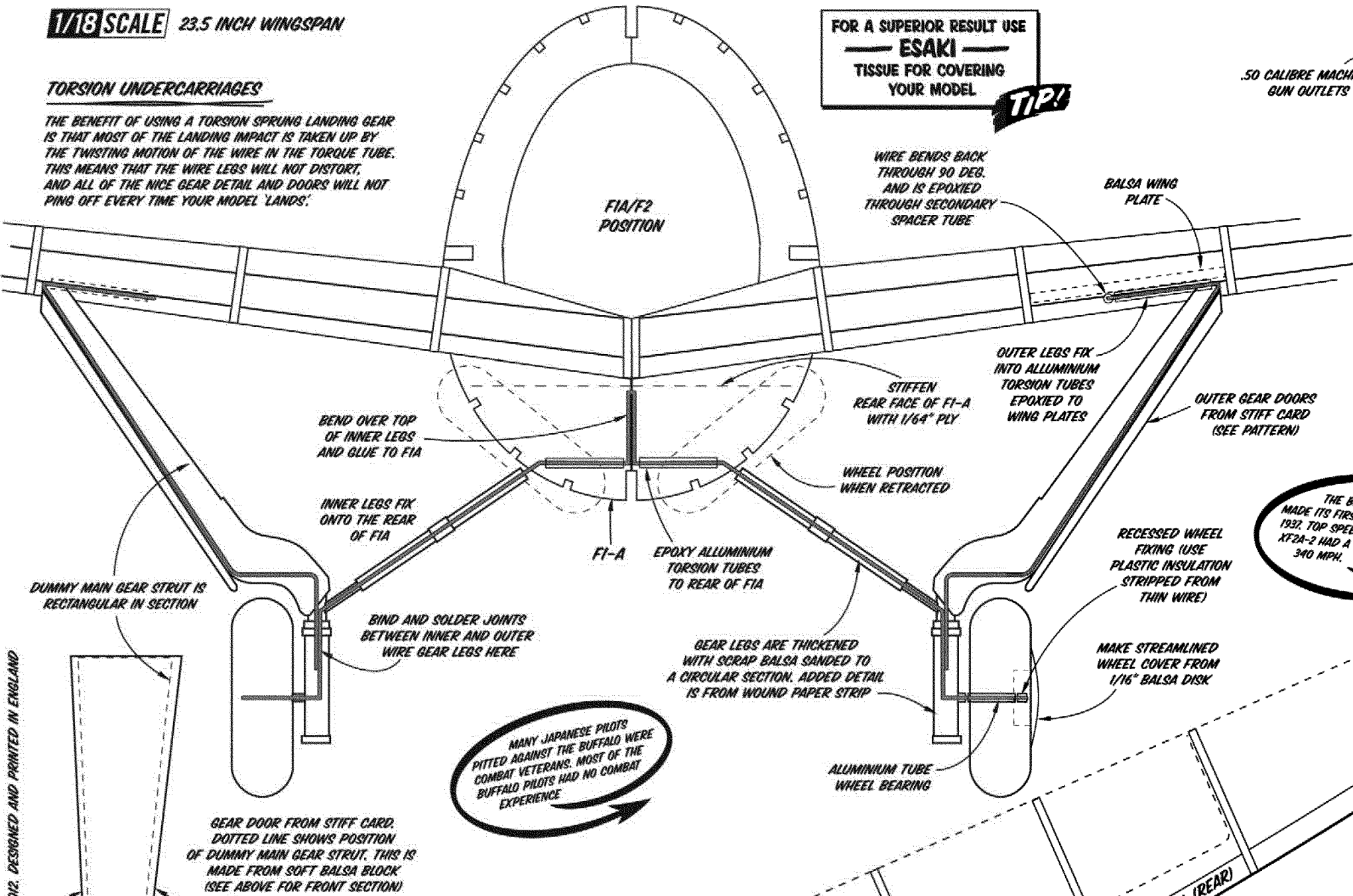
TOP VIEW

**CANOPY**  
THE CANOPY CAN BE MOULDED USING A CARVED Balsa DOLLY. REFER TO TOP VIEW, SIDE VIEW AND SECTIONS SHOWN HERE. A SIMPLER CANOPY CAN BE FASHIONED USING THIN SHEET ACETATE CURVED OVER LAMINATED FORMERS. USE PAPER TEMPLATES TO DETERMINE SHAPE.



SIDE VIEW

CROSS-SECTION HERE TO MATCH TOP OF F6



F1A/F2 POSITION

Balsa WING PLATE

OUTER LEGS FIX INTO ALLUMINIUM TORSION TUBES EPOXIED TO WING PLATES

OUTER GEAR DOORS FROM STIFF CARD (SEE PATTERN)

BEND OVER TOP OF INNER LEGS AND GLUE TO F1A

INNER LEGS FIX ONTO THE REAR OF F1A

F1-A

EPOXY ALLUMINIUM TORSION TUBES TO REAR OF F1A

WHEEL POSITION WHEN RETRACTED

RECESSED WHEEL FIXING (USE PLASTIC INSULATION STRIPPED FROM THIN WIRE)

MAKE STREAMLINED WHEEL COVER FROM 1/16" Balsa DISK

GEAR LEGS ARE THICKENED WITH SCRAP Balsa SANDED TO A CIRCULAR SECTION. ADDED DETAIL IS FROM WOUND PAPER STRIP

ALUMINIUM TUBE WHEEL BEARING

BIND AND SOLDER JOINTS BETWEEN INNER AND OUTER WIRE GEAR LEGS HERE

MANY JAPANESE PILOTS PITTED AGAINST THE BUFFALO WERE COMBAT VETERANS. MOST OF THE BUFFALO PILOTS HAD NO COMBAT EXPERIENCE

GEAR DOOR FROM STIFF CARD. DOTTED LINE SHOWS POSITION OF DUMMY MAIN GEAR STRUT. THIS IS MADE FROM SOFT Balsa BLOCK (SEE ABOVE FOR FRONT SECTION)

DUMMY MAIN GEAR STRUT IS RECTANGULAR IN SECTION

CANOPY OUTLINE

FUSELAGE HALF TOP VIEW

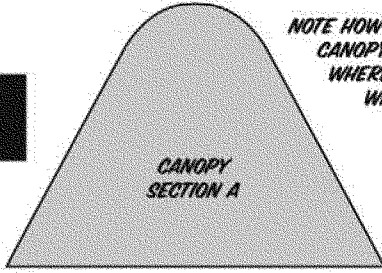
SIDE KEEL (REAR)

**F2A-3 (BATTLE OF MIDWAY ERA)**  
THE BREWSTER F2A-3 USED BY US FORCES AT THE BATTLE OF MIDWAY HAD A LONGER NOSE THAN THE BRITISH BUFFALO MKI OR F2A-2. IF YOU WISH TO BUILD THIS VERSION, EXTEND THE LENGTH OF ALL KEELS BETWEEN F1 AND F1A BY 5/16" (8MM)

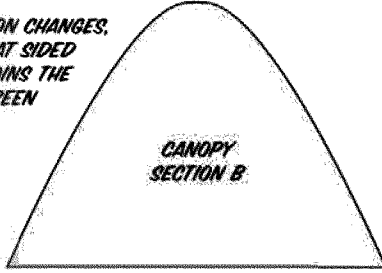
USE THIS TOP VIEW TO JOIN THE SIDE KEELS

F2A-3 VERSION HAS 8MM NOSE EXTENSION (SEE ABOVE)

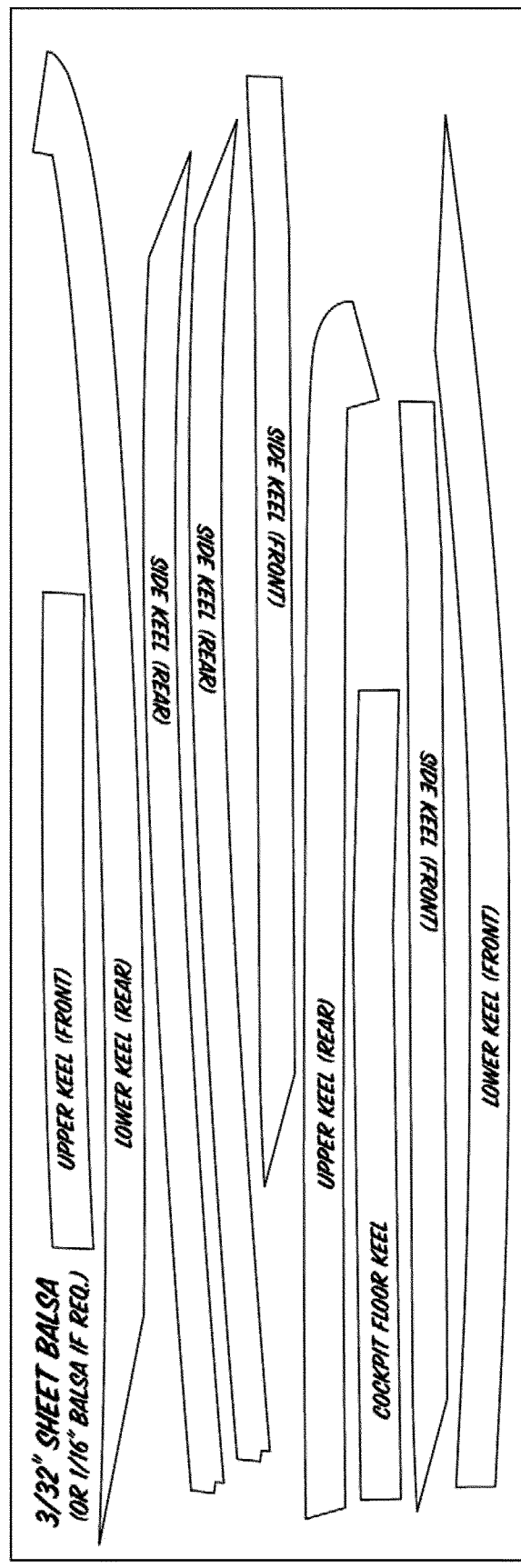
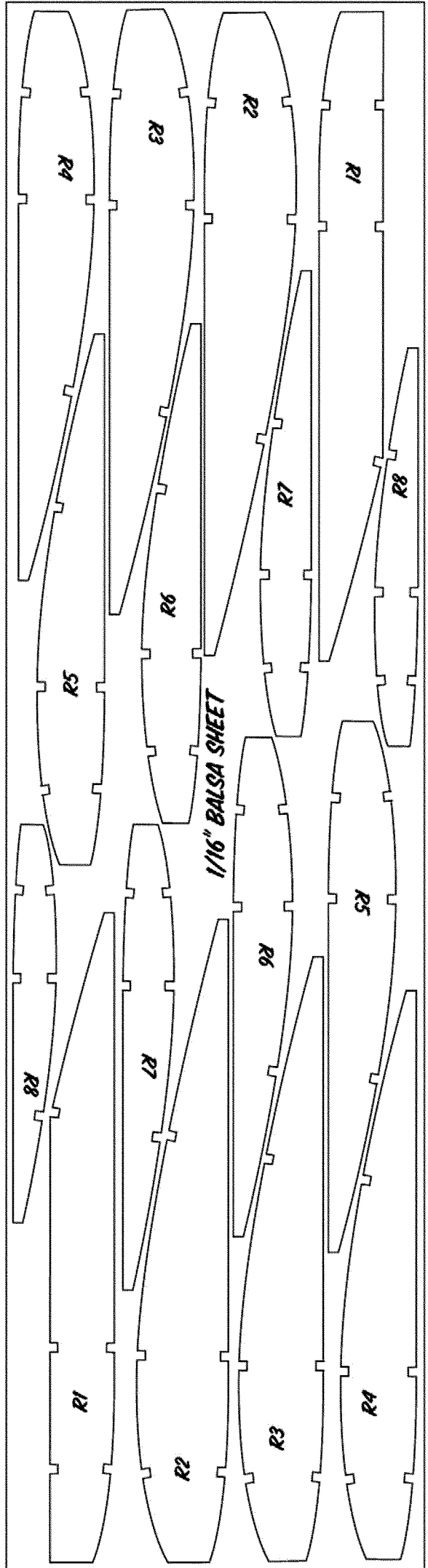
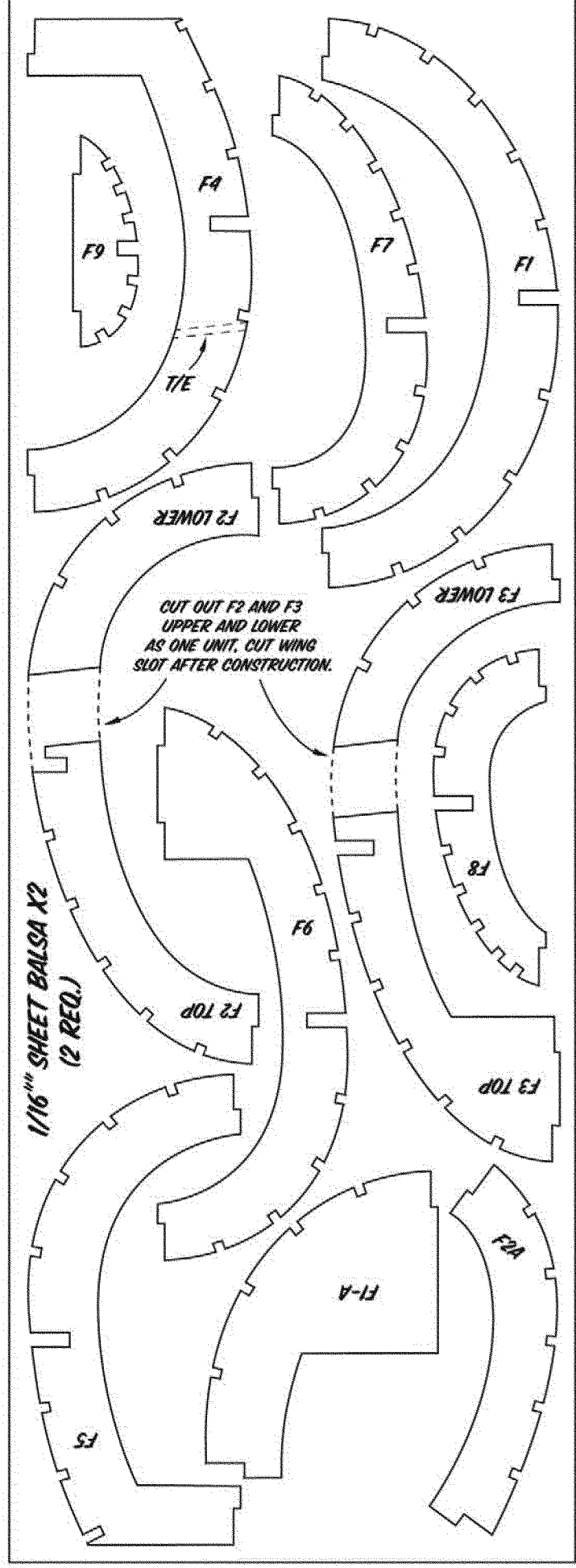
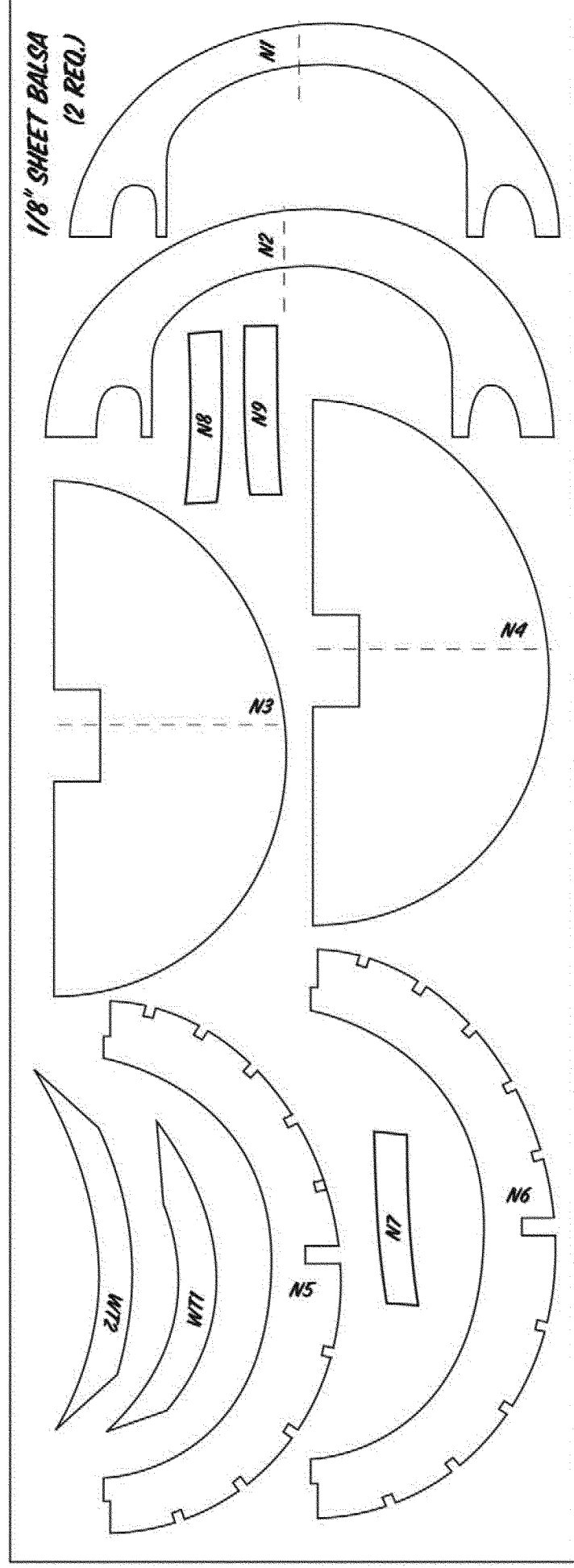
NOTE HOW SECTION CHANGES, CANOPY IS FLAT SIDED WHERE IT JOINS THE WINDSCREEN



CANOPY SECTION A



CANOPY SECTION B



For readers looking to building Richard Crossley's Brewster Buffalo (for which Part 1 and accompanying 1st two sheets of the plan appeared in the May issue), we have a laser-cut component pack available. As emphasised before, these cut-part sets provide ready-cut pieces of all the bits that you would otherwise have to trace out onto the balsa or plywood sheets before knifing them out, thus saving a fair bit of tedious time, so that the airframe assembly process can start immediately. The parts sets do NOT include strip and sheet wood that you can get from your friendly model shop.

The parts set costs £80.00 plus £9.50 for carriage in UK. Sets can be supplied to overseas customers, with carriage costs quoted on an individual destination basis.

ORDER DIRECT FROM KEY PUBLISHING LTD, PO BOX 100, STAMFORD, LINCOLNSHIRE, PE9 1XQ, U.K. (TEL: 0178 480404)

