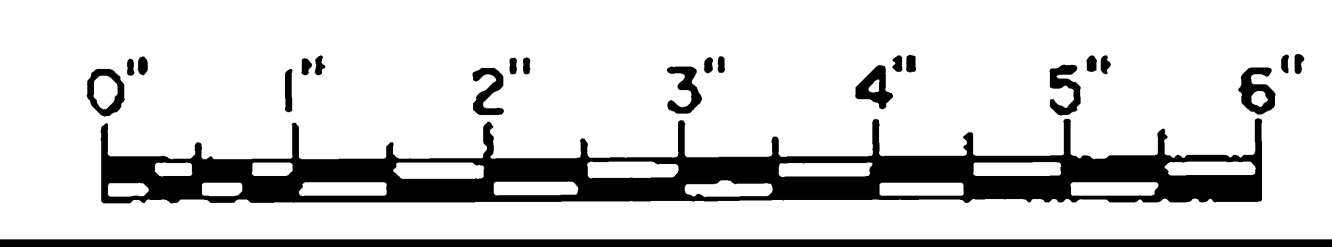


FLYING MODELS  
**ARUP - S2**  
 1933 FLYING WING  
 DESIGNED BY AL WOLSKY  
 TRACING BY JOE DEMARCO  
 ALL RIGHTS RESERVED

SHEET  
 1 OF 2



**FUSELAGE SIDE VIEW**

**FUSELAGE NOSE**

TRIM ELEV. AND AILERONS  
 1" - 1/8" FOR STABLE FLIGHT

EPOXY F-8 TO WIRE  
 STRUT STRENGTHEN  
 WITH FIBERGLASS CLOTH

MAKE 2 OF 1/8" PLYWOOD  
 EPOXY TO INSIDE OF RIB  
 R-1

USE .35 - .40 R/C  
 ENGINE

1/8" DIA.  
 MUSIC WIRE

ELEVATOR CENTER RIB  
 3/16" Balsa MAKE 1

AILERON & ELEVATOR END RIBS  
 1/4" Balsa SHEET MAKE 4

**TAILWHEEL STRUT**

**F-6**

1/8" Balsa  
**AILERON  
 RIB**

**F-5**

1/4" Balsa  
 MAKE 3

1/4" Balsa SHEET  
 OUTLINE

**FIN**

**RUDDER**

**FUSELAGE SIDE VIEW**

DASHED LINE IS FIN  
 SCALE OUTLINE

CABIN CANOPY - BUILT UP  
 OF 3/32" PLY FORMERS

**R-4**

**R-3**

**R-2**

**R-1**

**R-6**

**R-5**

**F-2**

**F-3**

**F-4**

**F-1**

**C.G.  
 RANGE**

**L.G.  
 BLOCKS**

1/4" SPRUCE OR PINE  
 MAIN SPAR

1/8" Balsa  
 PLANKING

3/8" DOWEL  
 LEADING EDGE

1/4" PLY  
 FIREWALL

Balsa  
 BLOCK  
 COWLING

3/32" PLY  
 BOTTOM

OPTIONAL WINDOW  
 BOTH SIDES

1/4" x 1/2" PINE  
 FAIRINGS

SEW TAILWHEEL STRUT TO PLY  
 CROSS PIECE

HINGE LINE  
 POSITION

1/8" Balsa SHEET  
 3/16" Balsa SHEET

**F-4**

3/16" Balsa  
 SHEET

1/4" Balsa  
 SHEET

**F-8**

3/16" Balsa  
 SHEET

**FIREWALL**

**F-2**

**F-1**

WHEEL PANTS  
 SEE SHEET 2

3" DIA. WHEELS

WINDOW  
 OPENING

**F-3**

3/16" Balsa  
 SHEET

1/8" DIA. MUSIC  
 WIRE

1-1/2" DIA. TAILWHEEL

1/4" Balsa  
 SHEET

1/4" PLYWOOD

**F-1**

USE .35 - .40 R/C  
 ENGINE

1/8" Balsa  
 PLANKING

1/4" PLY  
 FIREWALL

Balsa  
 BLOCK  
 COWLING

3/32" PLY  
 BOTTOM

OPTIONAL WINDOW  
 BOTH SIDES

1/4" x 1/2" PINE  
 FAIRINGS

3/16" Balsa  
 SHEET

**FIREWALL**

**F-2**

**F-1**

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 ENGINE

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1/4" PLY  
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 BOTTOM

OPTIONAL WINDOW  
 BOTH SIDES

1/4" x 1/2" PINE  
 FAIRINGS

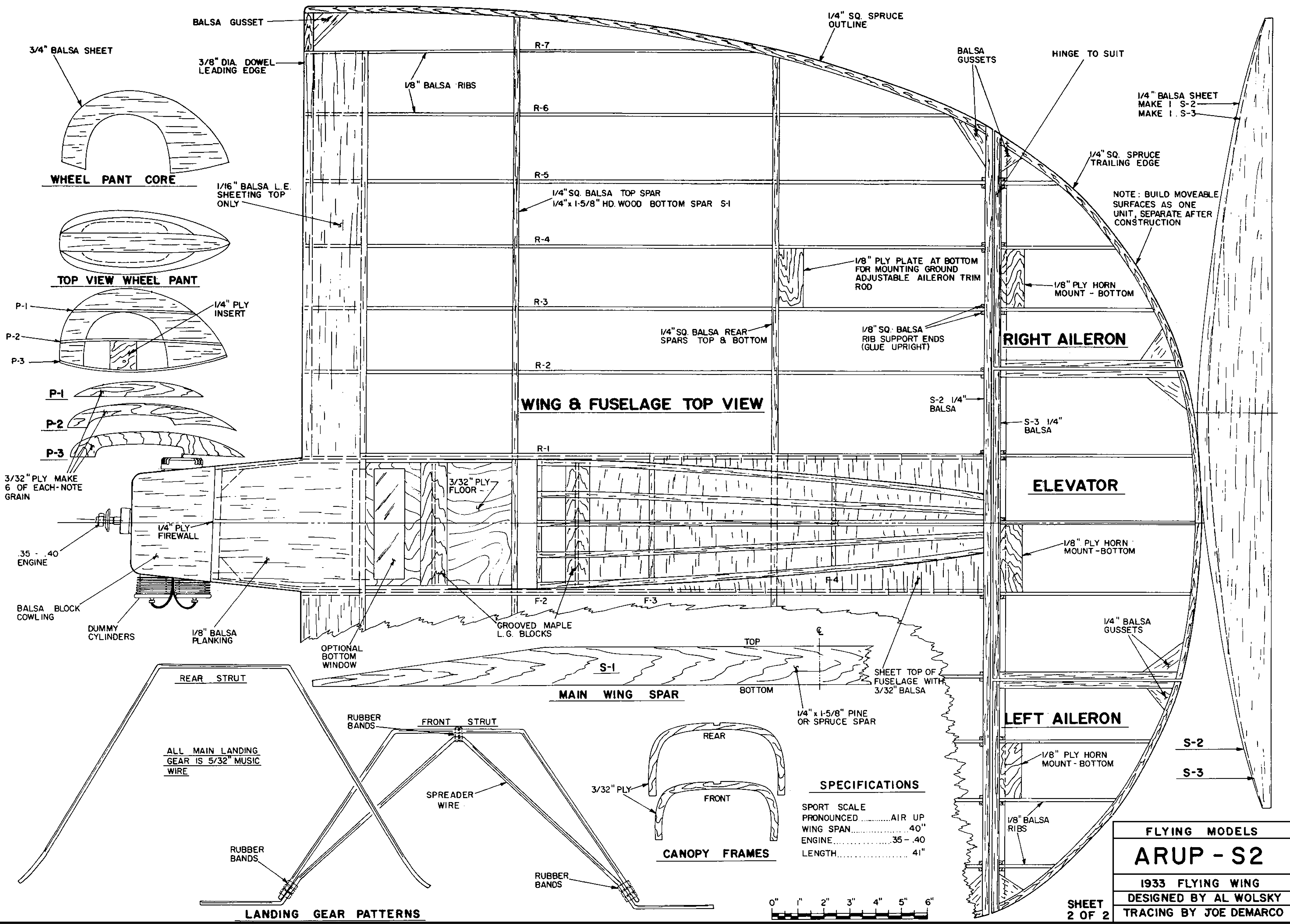
3/16" Balsa  
 SHEET

**FIREWALL**

**F-2**

**F-1**

USE .35 - .40 R/C  
 ENGINE



3/4" Balsa Sheet

Balsa Gusset

3/8" Dia. Dowel Leading Edge

1/8" Balsa Ribs

1/4" SQ. Spruce Outline

Balsa Gussets

Hinge to Suit

1/4" Balsa Sheet  
Make 1 S-2  
Make 1 S-3

1/4" SQ. Spruce Trailing Edge

NOTE: BUILD MOVEABLE SURFACES AS ONE UNIT, SEPARATE AFTER CONSTRUCTION

1/8" Ply Plate at Bottom for Mounting Ground Adjustable Aileron Trim Rod

1/8" Ply Horn Mount - Bottom

RIGHT AILERON

1/4" SQ. Balsa Rear Spars Top & Bottom

1/8" SQ. Balsa Rib Support Ends (Glue Upright)

S-2 1/4" Balsa

S-3 1/4" Balsa

ELEVATOR

1/8" Ply Horn Mount - Bottom

1/4" Balsa Gussets

LEFT AILERON

1/8" Ply Horn Mount - Bottom

1/8" Balsa Ribs

S-2

S-3

WING & FUSELAGE TOP VIEW

1/16" Balsa L.E. Sheeting Top Only

WHEEL PANT CORE

TOP VIEW WHEEL PANT

1/4" Ply Insert

P-1  
P-2  
P-3

P-1

P-2

P-3

3/32" Ply Make 6 of Each - Note Grain

1/4" Ply Firewall

.35 - .40 Engine

Balsa Block Cowlings

Dummy Cylinders

1/8" Balsa Planking

3/32" Ply Floor

Optional Bottom Window

Grooved Maple L.G. Blocks

F-2

F-3

F-4

S-1

MAIN WING SPAR

BOTTOM

SHEET TOP OF FUSELAGE WITH 3/32" Balsa

1/4" x 1-5/8" Pine or Spruce Spar

REAR STRUT

ALL MAIN LANDING GEAR IS 5/32" MUSIC WIRE

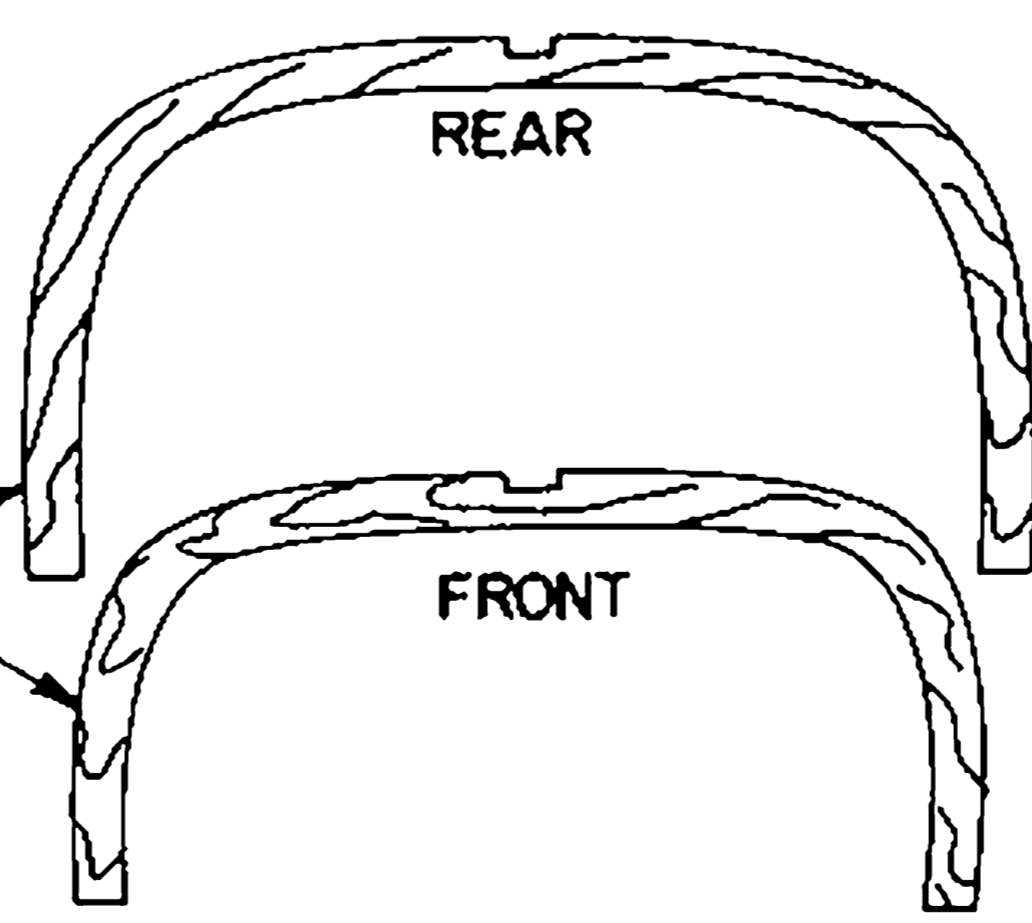
RUBBER BANDS

FRONT STRUT

SPREADER WIRE

RUBBER BANDS

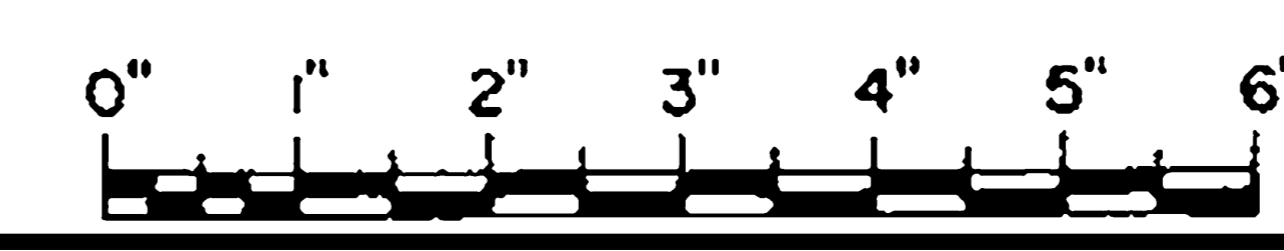
RUBBER BANDS



CANOPY FRAMES

SPECIFICATIONS

SPORT SCALE  
 PRONOUNCED ..... AIR UP  
 WING SPAN ..... 40"  
 ENGINE ..... 35 - 40  
 LENGTH ..... 41"



LANDING GEAR PATTERNS

FLYING MODELS

ARUP - S2

1933 FLYING WING

DESIGNED BY AL WOLSKY

TRACING BY JOE DEMARCO

SHEET 2 OF 2