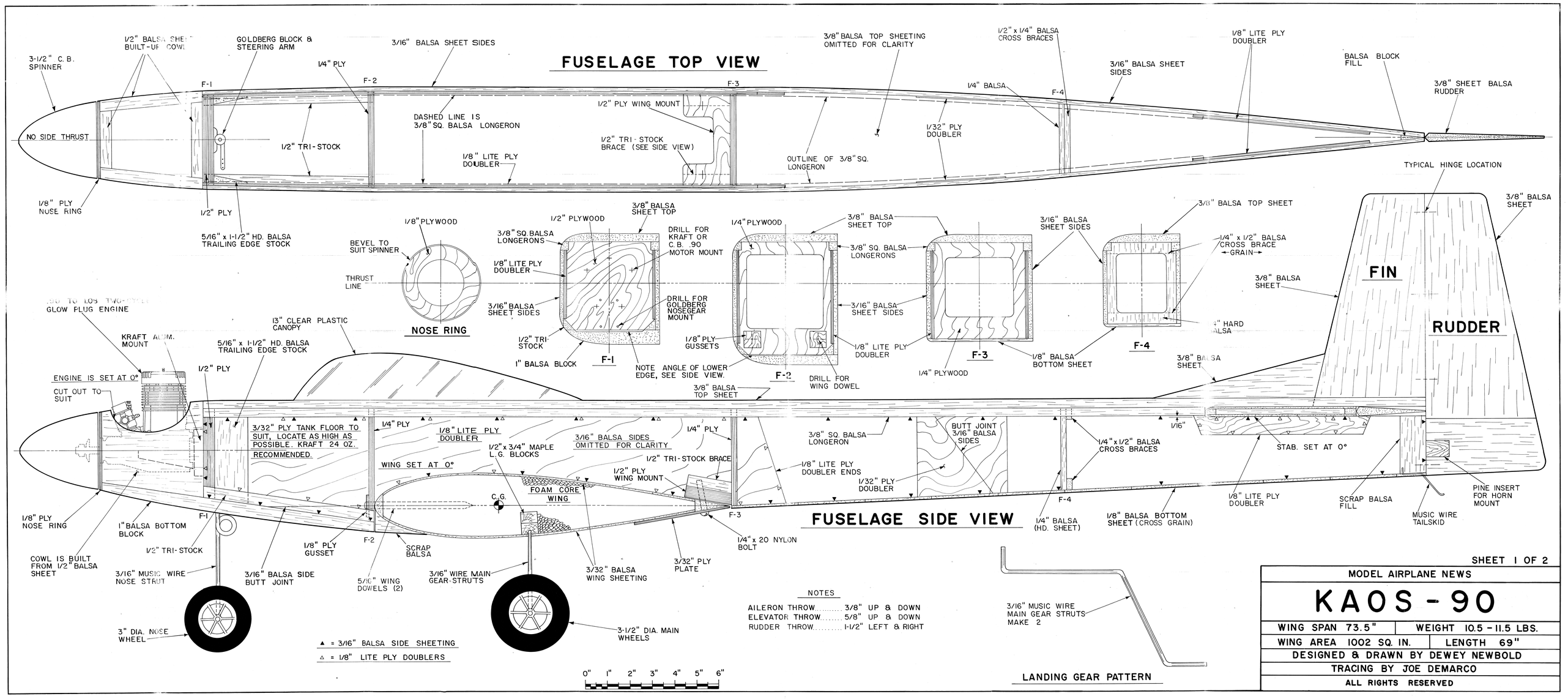
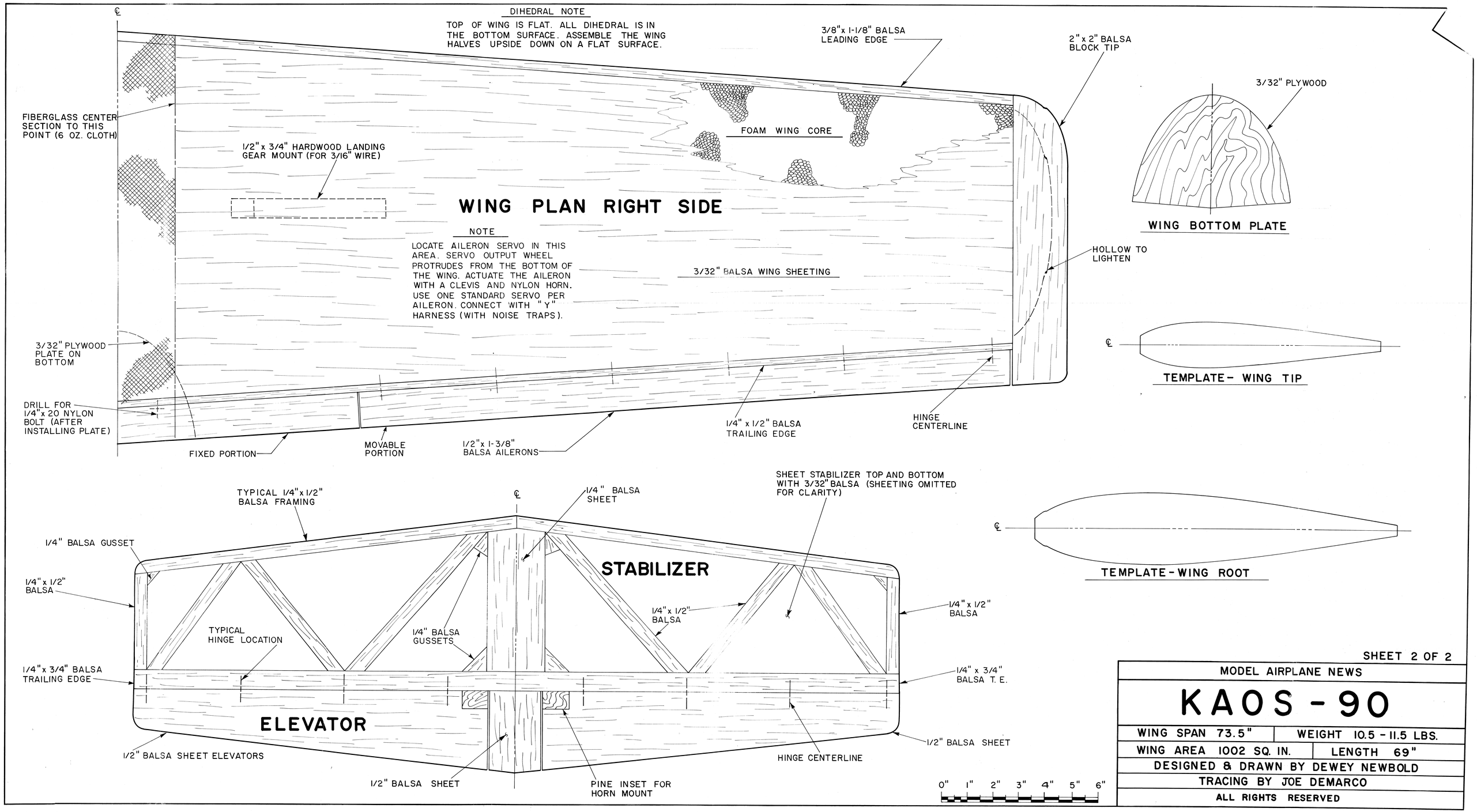

FUSELAGE TOP VIEW
3-1/2" C.B. SPINNER
1/2" BALSA SHEET BUILT-UP COWL
GOLDBERG BLOCK & STEERING ARM
3/16" BALSA SHEET SIDES
1/4" PLY
F-1
F-2
F-3
F-4
NO SIDE THRUST
1/2" TRI-STOCK
DASHED LINE IS 3/8" SQ. BALSA LONGERON
1/8" LITE PLY DOUBLER
1/2" PLY WING MOUNT
1/2" TRI-STOCK BRACE (SEE SIDE VIEW)
OUTLINE OF 3/8" SQ. LONGERON
3/8" BALSA TOP SHEETING OMITTED FOR CLARITY
1/32" PLY DOUBLER
1/4" BALSA
1/2" x 1/4" BALSA CROSS BRACES
3/16" BALSA SHEET SIDES
1/8" LITE PLY DOUBLER
BALSA BLOCK FILL
3/8" SHEET BALSA RUDDER
1/8" PLY NOSE RING
1/2" PLY
5/16" x 1-1/2" HD. BALSA TRAILING EDGE STOCK
1/8" PLYWOOD
BEVEL TO SUIT SPINNER
THRUST LINE
NOSE RING
1/2" PLYWOOD
3/8" SQ. BALSA LONGERONS
1/8" LITE PLY DOUBLER
3/16" BALSA SHEET SIDES
1/2" TRI-STOCK
1" BALSA BLOCK
3/8" BALSA SHEET TOP
DRILL FOR KRAFT OR C.B. 90 MOTOR MOUNT
DRILL FOR GOLDBERG NOSEGEAR MOUNT
NOTE ANGLE OF LOWER EDGE, SEE SIDE VIEW.
3/8" BALSA TOP SHEET
1/4" PLYWOOD
1/8" PLY GUSSETS
DRILL FOR WING DOWEL
3/8" BALSA SHEET TOP
3/8" SQ. BALSA LONGERONS
3/16" BALSA SHEET SIDES
1/8" LITE PLY DOUBLER
1/4" PLYWOOD
3/16" BALSA SHEET SIDES
1/8" BALSA BOTTOM SHEET
3/8" BALSA TOP SHEET
1/4" x 1/2" BALSA CROSS BRACE
GRAIN
1/4" HARD BALSA
3/8" BALSA SHEET
3/8" BALSA SHEET
TYPICAL HINGE LOCATION
FIN
RUDDER
GLOW PLUG ENGINE
KRAFT ALUM. MOUNT
13" CLEAR PLASTIC CANOPY
5/16" x 1-1/2" HD. BALSA TRAILING EDGE STOCK
1/2" PLY
ENGINE IS SET AT 0°
CUT OUT TO SUIT
3/32" PLY TANK FLOOR TO SUIT, LOCATE AS HIGH AS POSSIBLE. KRAFT 24 OZ. RECOMMENDED.
1/4" PLY
1/8" LITE PLY DOUBLER
WING SET AT 0°
1/2" x 3/4" MAPLE L.G. BLOCKS
3/16" BALSA SIDES OMITTED FOR CLARITY
1/4" PLY
1/2" TRI-STOCK BRACE
1/2" PLY WING MOUNT
FOAM CORE WING
C.G.
3/8" SQ. BALSA LONGERON
1/8" LITE PLY DOUBLER ENDS
1/32" PLY DOUBLER
BUTT JOINT 3/16" BALSA SIDES
1/4" x 1/2" BALSA CROSS BRACES
1/16"
STAB. SET AT 0°
1/8" LITE PLY DOUBLER
SCRAP BALSA FILL
PINE INSERT FOR HORN MOUNT
MUSIC WIRE TAILSKID
1/8" BALSA BOTTOM SHEET (CROSS GRAIN)
1/4" BALSA (HD. SHEET)
1/4" x 20 NYLON BOLT
3/32" PLY PLATE
3/32" BALSA WING SHEETING
3/16" WIRE MAIN GEAR STRUTS
5/16" WING DOWELS (2)
SCRAP BALSA
1/8" PLY GUSSET
3/16" BALSA SIDE BUTT JOINT
3/16" MUSIC WIRE NOSE STRUT
COWL IS BUILT FROM 1/2" BALSA SHEET
1/2" TRI-STOCK
1" BALSA BOTTOM BLOCK
1/8" PLY NOSE RING
3" DIA. NOSE WHEEL
3-1/2" DIA. MAIN WHEELS
FUSELAGE SIDE VIEW
▲ = 3/16" BALSA SIDE SHEETING
△ = 1/8" LITE PLY DOUBLERS
0" 1" 2" 3" 4" 5" 6"
NOTES
AILERON THROW..... 3/8" UP & DOWN
ELEVATOR THROW..... 5/8" UP & DOWN
RUDDER THROW..... 1-1/2" LEFT & RIGHT
3/16" MUSIC WIRE MAIN GEAR STRUTS MAKE 2
LANDING GEAR PATTERN
SHEET 1 OF 2
MODEL AIRPLANE NEWS
KAOS - 90
WING SPAN 73.5"
WEIGHT 10.5 - 11.5 LBS.
WING AREA 1002 SQ. IN.
LENGTH 69"
DESIGNED & DRAWN BY DEWEY NEWBOLD
TRACING BY JOE DEMARCO
ALL RIGHTS RESERVED


DIHEDRAL NOTE
TOP OF WING IS FLAT. ALL DIHEDRAL IS IN THE BOTTOM SURFACE. ASSEMBLE THE WING HALVES UPSIDE DOWN ON A FLAT SURFACE.
3/8" x 1-1/8" BALSA LEADING EDGE
2" x 2" BALSA BLOCK TIP
FIBERGLASS CENTER SECTION TO THIS POINT (6 OZ. CLOTH)
1/2" x 3/4" HARDWOOD LANDING GEAR MOUNT (FOR 3/16" WIRE)
FOAM WING CORE
WING PLAN RIGHT SIDE
NOTE
LOCATE AILERON SERVO IN THIS AREA. SERVO OUTPUT WHEEL PROTRUDES FROM THE BOTTOM OF THE WING. ACTUATE THE AILERON WITH A CLEVIS AND NYLON HORN. USE ONE STANDARD SERVO PER AILERON. CONNECT WITH "Y" HARNESS (WITH NOISE TRAPS).
3/32" BALSA WING SHEETING
HOLLOW TO LIGHTEN
3/32" PLYWOOD PLATE ON BOTTOM
DRILL FOR 1/4" x 20 NYLON BOLT (AFTER INSTALLING PLATE)
FIXED PORTION
MOVABLE PORTION
1/2" x 1-3/8" BALSA AILERONS
1/4" x 1/2" BALSA TRAILING EDGE
HINGE CENTERLINE
3/32" PLYWOOD
WING BOTTOM PLATE
TEMPLATE- WING TIP
TEMPLATE-WING ROOT
TYPICAL 1/4" x 1/2" BALSA FRAMING
1/4" BALSA SHEET
SHEET STABILIZER TOP AND BOTTOM WITH 3/32" BALSA (SHEETING OMITTED FOR CLARITY)
1/4" BALSA GUSSET
1/4" x 1/2" BALSA
STABILIZER
1/4" x 1/2" BALSA
1/4" x 1/2" BALSA
TYPICAL HINGE LOCATION
1/4" BALSA GUSSETS
1/4" x 3/4" BALSA TRAILING EDGE
1/4" x 3/4" BALSA T. E.
ELEVATOR
1/2" BALSA SHEET ELEVATORS
1/2" BALSA SHEET
PINE INSET FOR HORN MOUNT
HINGE CENTERLINE
1/2" BALSA SHEET
0" 1" 2" 3" 4" 5" 6"
SHEET 2 OF 2
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