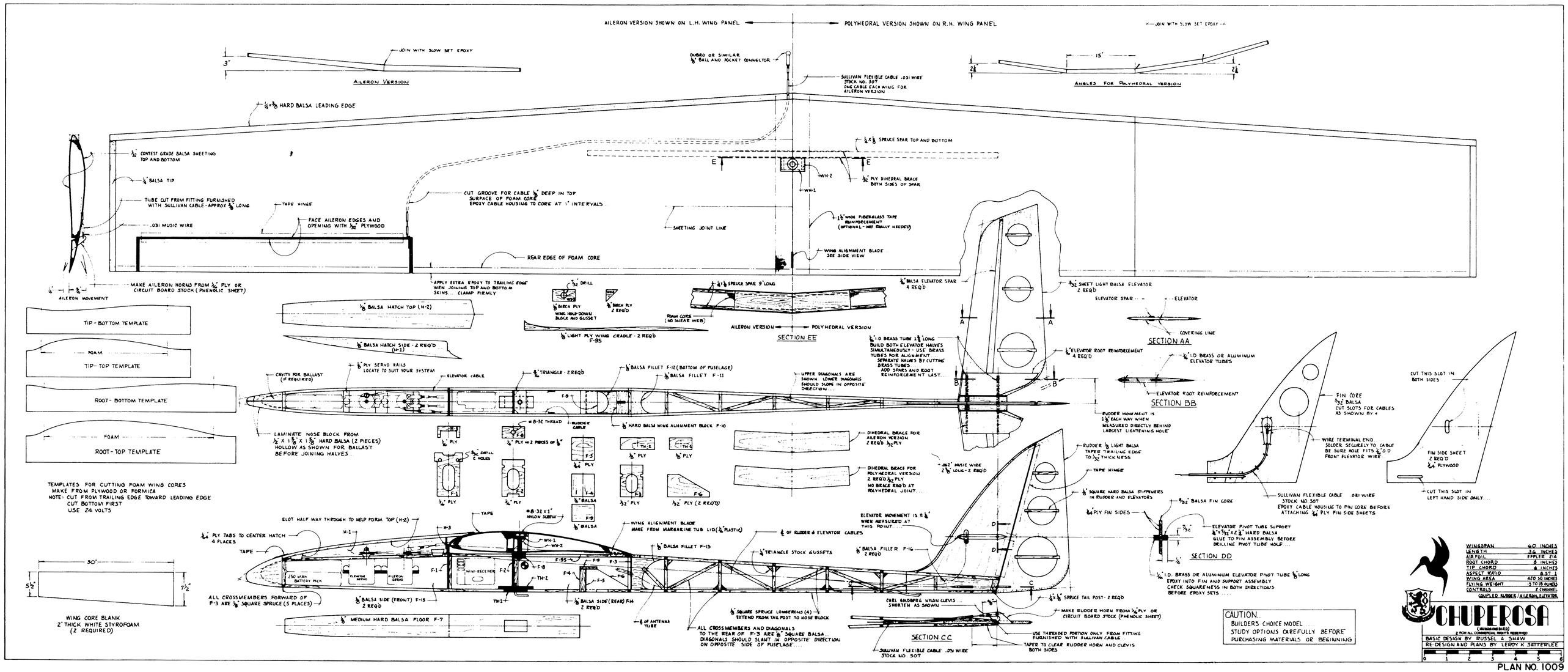
AILERON VERSION SHOWN ON L.H. WING PANEL
POLYHEDRAL VERSION SHOWN ON R.H. WING PANEL
JOIN WITH SLOW SET EPOXY
AILERON VERSION
ANGLES FOR POLYHEDRAL VERSION
OUBRO OR SIMILAR 1/8" BALL AND SOCKET CONNECTOR
SULLIVAN FLEXIBLE CABLE .031 WIRE STOCK NO. 307 ONE CABLE EACH WING FOR AILERON VERSION
1/4 x 3/8 HARD BALSA LEADING EDGE
1/4 x 1/8 SPRUCE SPAR TOP AND BOTTOM
1/32 CONTEST GRADE BALSA SHEETING TOP AND BOTTOM
1/8 BALSA TIP
TUBE CUT FROM FITTING FURNISHED WITH SULLIVAN CABLE - APPROX 3/8 LONG
.031 MUSIC WIRE
TAPE HINGE
FACE AILERON EDGES AND OPENING WITH 1/32 PLYWOOD
CUT GROOVE FOR CABLE 1/8 DEEP IN TOP SURFACE OF FOAM CORE EPOXY CABLE HOUSING TO CORE AT 1" INTERVALS
SHEETING JOINT LINE
1/2 WIDE FIBERGLASS TAPE REINFORCEMENT (OPTIONAL - NOT ORIGINALLY NEEDED)
WING ALIGNMENT BLADE SEE SIDE VIEW
REAR EDGE OF FOAM CORE
1/32 PLY DIHEDRAL BRACE BOTH SIDES OF SPAR
WH-1
WH-2
MAKE AILERON HORNS FROM 1/16 PLY OR CIRCUIT BOARD STOCK (PHENOLIC SHEET)
AILERON MOVEMENT
APPLY EXTRA EPOXY TO TRAILING EDGE WEN JOINING TOP AND BOTTO IN SKINS... CLAMP FIRMLY
1/8 BALSA HATCH TOP (H-2)
1/8 BALSA HATCH SIDE - 2 REQ'D (H-1)
TIP - BOTTOM TEMPLATE
FOAM
TIP - TOP TEMPLATE
ROOT - BOTTOM TEMPLATE
FOAM
ROOT - TOP TEMPLATE
TEMPLATES FOR CUTTING FOAM WING CORES MAKE FROM PLYWOOD OR FORMICA
NOTE: CUT FROM TRAILING EDGE TOWARD LEADING EDGE
CUT BOTTOM FIRST
USE 24 VOLTS
3/32 DRILL
1/8 BIRCH PLY WING HOLD-DOWN BLOCK AND GUSSET
1/8 BIRCH PLY 2 REQ'D
1/4 x 1 1/8 SPRUCE SPAR 9" LONG
FOAM CORE (NO SHEAR WEB)
1/8 LIGHT PLY WING CRADLE - 2 REQ'D F-9S
AILERON VERSION
POLYHEDRAL VERSION
SECTION EE
1/4 BALSA ELEVATOR SPAR 4 REQ'D
3/32 SHEET LIGHT BALSA ELEVATOR 2 REQ'D
ELEVATOR SPAR
ELEVATOR
COVERING LINE
SECTION AA
1/4 I.D BRASS TUBE 1 1/8 LONG BUILD BOTH ELEVATOR HALVES SIMULTANEOUSLY - USE BRASS TUBES FOR ALIGNMENT SEPARATE HALVES BY CUTTING BRASS TUBES ADD SPARS AND ROOT REINFORCEMENT LAST...
1/4 ELEVATOR ROOT REINFORCEMENT 4 REQ'D
1/4 I.D BRASS OR ALUMINUM ELEVATOR TUBES
ELEVATOR ROOT REINFORCEMENT
SECTION BB
RUDDER MOVEMEUT IS 1 1/8 EACH WAY WHEN MEASURED DIRECTLY BEHIND LARGEST LIGHTENING HOLE
CAVITY FOR BALLAST (IF REQUIRED)
1/8 PLY SERVO RAILS LOCATE TO SUIT YOUR SYSTEM
ELEVATOR CABLE
3/16 TRIANGLE - 2 REQ'D
1/8 BALSA FILLET F-12 (BOTTOM OF FUSELAGE)
1/8 BALSA FILLET F-11
UPPER DIAGONALS ARE SHOWN LOWER DIAGONALS SHOULD SLOPE IN OPPOSITE DIRECTION...
#8-32 THREAD
RUDDER CABLE
1/8 HARD BALSA WING ALIGNMENT BLOCK F-10
LAMINATE NOSE BLOCK FROM 1/2 X 1 1/8 X 1 3/8 HARD BALSA (2 PIECES) HOLLOW AS SHOWN FOR BALLAST BEFORE JOINING HALVES...
1/8 PLY
3/32 DRILL 2 HOLES
1/4 PLY
1/4 PLY = 2 PIECES OF 1/8"
1/4 PLY
1/8 PLY
1/8 PLY
1/8 BALSA
3/32 PLY
3/32 PLY (2 REQ'D)
1/8 BALSA
DIHEDRAL BRACE FOR AILERON VERSION 2 REQ'D 3/32 PLY
DIHEDRAL BRACE FOR POLYHEDRAL VERSION 2 REQ'D 3/32 PLY NO BRACE REQ'D AT POLYHEDRAL JOINT...
.062" MUSIC WIRE 2 3/8 LONG - 2 REQ'D
RUDDER 1/8 LIGHT BALSA TAPER TRAILING EDGE TO 3/32 THICKNESS
TAPE HINGE
1/8 SQUARE HARD BALSA STIFFNERS IN RUDDER AND ELEVATORS
3/32 BALSA FIN CORE
1/16 PLY FIN SIDES
FIN CORE 3/32 BALSA CUT SLOTS FOR CABLES AS SHOWN BY +
WIRE TERMINAL END SOLDER SECURELY TO CABLE BE SURE HOLE FITS 1/16 O.D FRONT ELEVATOR WIRE
SULLIVAN FLEXIBLE CABLE .031 WIRE STOCK NO. 307 EPOXY CABLE HOUSING TO FIN CORE BEFORE ATTACHING 1/16 PLY FIN SIDE SHEETS
CUT THIS SLOT IN BOTH SIDES...
FIN SIDE SHEET 2 REQ'D 1/16 PLYWOOD
CUT THIS SLOT IN LEFT HAND SIDE ONLY...
ELEVATOR MOVEMENT IS 1/8 WHEN MEASURED AT THIS POINT...
ELEVATOR PIVOT TUBE SUPPORT 1/8 x 7/32 x 2 1/8 HARD BALSA GLUE TO FIN ASSEMBLY BEFORE DRILLING PIVOT TUBE HOLE...
SECTION DD
1/16 I.D. BRASS OR ALUMINUM ELEVATOR PIVOT TUBE 1/8 LONG EPOXY INTO FIN AND SUPPORT ASSEMBLY CHECK SQUARENESS IN BOTH DIRECTIONS BEFORE EPOXY SETS.....
SLOT HALF WAY THROUGH TO HELP FORM TOP (H-2)
1/4 PLY TABS TO CENTER HATCH 4 PLACES
TAPE
H-1
H-3
#8-32 x 1" NYLON SCREW
WH-1
WH-2
WING ALIGNMENT BLADE MAKE FROM MARGARINE TUB LID (1/16 PLASTIC)
1/8 BALSA FILLET F-13
1/16 OF RUDDER & ELEVATOR CABLES
1/8 TRIANGLE STOCK GUSSETS
1/8 BALSA FILLER F-16 2 REQ'D
250 MAH BATTERY PACK
ELEVATOR SERVO
AILERON SERVO
MINI-RECEIVER
F-14
F-2
F-8
TH-2
TH-1
F-9S
F-9
F-3
F-4
F-5
F-6
1/8 BALSA SIDE (FRONT) F-15 2 REQ'D
1/8 BALSA SIDE (REAR) F-14 2 REQ'D
1/8 OF ANTENNA TUBE
1/8 SQUARE SPRUCE LONGERONS (4) EXTEND FROM TAIL POST TO NOSE BLOCK
ALL CROSSMEMBERS AND DIAGONALS TO THE REAR OF F-3 ARE 1/8 SQUARE BALSA DIAGONALS SHOULD SLANT IN OPPOSITE DIRECTION ON OPPOSITE SIDE OF FUSELAGE...
ALL CROSSMEMBERS FORWARD OF F-3 ARE 1/8 SQUARE SPRUCE (5 PLACES)
1/8 MEDIUM HARD BALSA FLOOR F-7
30"
5 1/2
7 1/2
WING CORE BLANK 2" THICK WHITE STYROFOAM (2 REQUIRED)
OREL GOLDBERG NYLON CLEVIS SHORTEN AS SHOWN
1/4 x 1/8 SPRUCE TAIL POST - 2 REQ'D
MAKE RUDDER HORN FROM 1/16 PLY OR CIRCUIT BOARD STOCK (PHENOLIC SHEET)
USE THREADED PORTION ONLY FROM FITTING FURNISHED WITH SULLIVAN CABLE
TAPER TO CLEAR RUDDER HORN AND CLEVIS BOTH SIDES
SULLIVAN FLEXIBLE CABLE .031 WIRE STOCK NO. 307
SECTION CC
CAUTION...
BUILDERS CHOICE MODEL...
STUDY OPTIONS CAREFULLY BEFORE PURCHASING MATERIALS OR BEGINNING
WINGSPAN 60 INCHES
LENGTH 36 INCHES
AIRFOIL EPPLER 214
ROOT CHORD 8 INCHES
TIP CHORD 6 INCHES
ASPECT RATIO 8.57:1
WING AREA 420.50 INCHES
FLYING WEIGHT 15 TO 18 OUNCES
CONTROLS 2 CHANNEL COUPLED RUDDER/AILERON/ELEVATOR
CHUPEROSA
(WHIMSICAL BIRD)
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BASIC DESIGN BY RUSSEL A. SHAW
RE-DESIGN AND PLANS BY LEROY K SATTERLEE
0 1 2 3 4 5 6
PLAN NO. 1009