Convair's Delta Wing XF-92A

PITOT TUBE 5" LONG AHEAD OF NOSE 3/16" DOWEL
SKIN OMITTED
1/4" SQ. CRUTCH
INSULATION BAFFLE
1/4" SHEET DOUBLERS
TANK
DYNA-JET
1/16" DIA. WIRE
INSULATION - 2 LAYERS ALUM. FOIL 1 LAYER ASBESTOS PAPER
1/4" THK.
U.S. AIR FORCE
6682
1/4"X 1/2" TUBE SUPPORT
BLACK ANTI-GLARE
HATCH HINGE
VENT TUBE
WING L. E.
FULL TOP VIEW
.020" ALUM BAFFLE TUBE
CUT AWAY AT ℄
PLASTIC CANOPY
3/16" SQ.
FUSELAGE PLANKING 1/8"X 3/8"
1/2"X 5/8" L. E.
1/4"X 1/2" SPARS
3/32"X 3" SHEET SKIN
ALUM. COLOR
BAFFLE TUBE
ENGINE TAIL-PIPE
6-32 BOLTS TAILPIPE SUPPORT
BAFFLE TUBE SUPPORT STRIP
1/8" PLYWOOD
PLASTIC WOOD FILL-IN
SCALE
DECAL
XF-92A
WING
DYNA-JET ENGINE
FRONT SECTION
INSULATION
3" DIA. TIN CAN FUEL TANK 7-LAPS
REAR SECTION OVERLAP
WHEEL DOORS 1/32" ALUM. OR 1/16" PLYWOOD
6 OZ. LEAD
PINE BLOCK TANK MOUNT
PINE BLOCK ENGINE MOUNT
ALUM ENGINE MOUNT SEE DETAIL
SCALE AFTER-BURNER
RED BAND - SEE PHOTOS
1/8" THK.
1/4" THK.
HATCH FORMER 1/8" PLYW'D.
3/16" PLYW'D.
EYE OR "J" BOLTS
2" DIA. WHEEL
SCALE NOSE GEAR SIDE
SKIN
2-1/2" DIA. WHEELS
CUT OUT FOR B'LCR'K.
DRILL 1/8" FOR GUIDE WIRE SUPPORT
ALL 1/8" PLYWOOD
CUT OUT FOR CRUTCH
1/4" PLYWOOD
EYE OR "J" BOLTS
NOSE GEAR 1/8" DIA. WIRE
1/4" SHEET DOUBLERS DOOR SUPPORT
HATCH FORMER
1/8" PLYWOOD
MAIN GEAR 1/8" DIA. WIRE
LEFT WING
FORMER 7 STUB
1/2"X 5/8" HARDWOOD BELLCRANK MOUNT
3" VECO
1/16" DIA. WIRE PUSH ROD
SCALE MAIN GEAR - FRONT (FROM PHOTOS)
RIGHT WING PHANTOM LINES
SKIN OMITTED FOR CLARITY
1/4"X 1/2" SPAR
HATCH FORMER SEGMENT
HATCH RAILS 1/8"X 1/2"
1/8" PLYWOOD
TANK
SCALE NOSE GEAR - FRONT
SAME SIZE INSIGNIA AS FUSE. UPPER LEFT LOWER RIGHT
F & B HINGES
BALANCE
SCALE MAIN GEAR - SIDE
1/4"X 1/2" SPAR - GET TAPER FROM RIBS
CUT OUT IN FIN RIBS ONLY
3T
ELEVATOR SPAR LEFT ONLY
L. E. 1/2"X 5/8"
1/8" DIA. WIRE GUIDE SUPPORT
SOLDER
LINE GUIDE- 1/16"X 3/8" BRASS OR STEEL - SIDE
ALL WING & FIN RIBS 1/8" SHEET
MAKE 3 EACH 3-4-5-6
" 2 " 1-2
" 1 " 3T
1/2"
HORN
7/8"
3/4"
1/32" ALUM.
1/32" DIA. WIRE LEADS
DUMMY HINGE FAIRING 1/4"X 1/2"
SIDE
5/8" THK.
3/32"X 3" SHEET SKIN
3/8" SQ. HARDWOOD HORN MOUNT

CAL SMITH

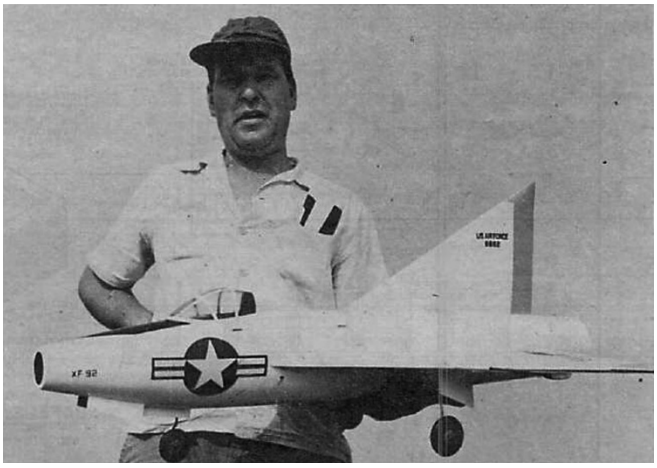
Convair Delta Wing XF-92A

Jet Powered Model by Frank Lashek and Cal Smith. Thousands have seen this model fly, now you can duplicate it for powering with a Dyna Jet engine.

The paper dart finally came into its own with the advent of the delta-wing aircraft. Convair's XF-92 was built as a high speed research aircraft and was the first completely successful design of this type flown anywhere. The flying equilateral triangle has turned in such fine performance that many designers and engineers believe this shape to be the most promising for future aircraft. From the experimental XF-92, Convair has developed the Sea-Dart, a twin jet hydro ski delta fighter, and the upcoming F-102, supersonic interceptor. The latest modification of the XF-92A features addition of afterburner to the J-33-A-29 turbojet, boosting thrust to over 5200 lbs.

Combining the Dyna Jet and delta wing shape results in a scale model that is a real show stopper. The white paint job is dazzling and the Dyna-Jet boosts the ship along at 95 mph. The model handles well and flies very smoothly. There has been no trouble with excess heat from the engine and the odd configuration will fly right if balanced properly. The model is scaled at 1"= 1', making a pretty big job. Length is 41 in. and span is 31'4 in. This size is necessary so that there is ample clearance around the Dyna Jet in the fuselage. Complete accurate data has not been released on the big XF-92A, so the model does not have all details complete, notably on the landing gear.

You will note on the plan side view that outlines of the scale tail cone are a bit higher than the model



And here's the master of jet powered scale model flying Frank Lashek of Asbury Park, N. J. His jet control line jobs have been duplicated around the world. Trailing edges are aluminum color.

construction. The model was laid out with fuselage symmetrical about the center line for ease of building. If you should wish to match the scale outlines shown, the center line should angle up from former 7 to scale position at tail cone. The short cone at rear cannot be used because the tail opening would be too small.

The nose air inlet opening on the big ship forms practically a knife edge, however, the fuselage planking does not permit this on the model, so outside diameter is 1/4" larger than scale. A turned aluminum ring could be made to proper size for the nose section. The main landing gear is a single strut rather than the complex scale gear, and the tread is wider for better ground stability. The drawings of scale landing gear are, based on photos, so the accuracy is not guaranteed. The gear could not be made retractable anyway, since there is inadequate room in the model fuselage.

Construction of the XF-92A is fairly complex and therefore not recommended for beginners. The fuselage is built on a jig made up of 1" x 3" blocks at each former station (see construction steps drawing). The blocks are nailed or screwed to a 6" wide plank forming a base board. Lay out the fuselage center line and crutch positions on the top of 1 "x 3" blocks. Cut the formers from 1/8" plywood except #3 which is 3/16" plywood and #7 which is 1/4" plywood.

Convair Delta Wing XF-92A

Make duplicate top segments of formers 3 and 6 for hinged hatch on top. To save plywood, formers 1, 2 and 4 can be cut from same piece since they are concentric. Formers 8, 10 and 11 can also be cut in same way.

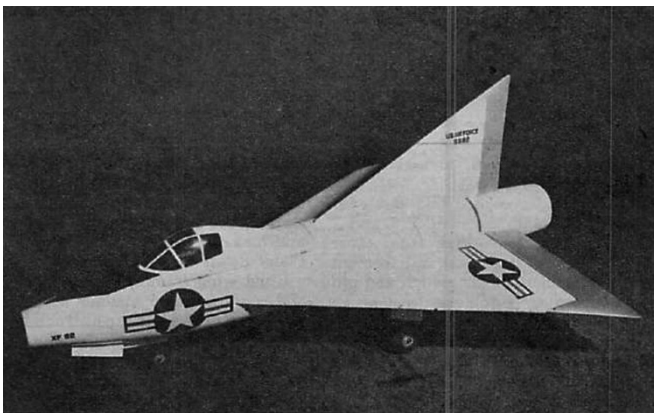
The crutch pieces are laid out over the jig block with formers 5, 6 and 7 slipped in place. Working from these formers toward nose and tail, cement the other formers to the crutch and pin crutch down to jig block as you go along. Formers should lie flat against the vertical face of jig blocks for good alignment. Leave center hole in formers 1 and 11 under size for strength until planking is done, then opening can be filed out to proper size. Put strips of waxed paper between mating surfaces of hatch rails and hatch formers for ease of removal later.

While basic fuselage structure is drying, proceed with construction of the fin. Build up frame consisting of leading edge, spars and ribs over the plan. Put 5/16" thick scrap blocks under leading edge and 3/8" thick blocks under spars so that ribs will clear work board. This fin frame can be planked on one side while still in place over the plan or it can be removed and planked in hand before attaching to fuselage. Either way check alignment as work advances.

Now cement fin in place on fuselage top. Note how spars extend down behind formers 8 and 9 and leading edge behind former 6. (See skin detail.) With fin in place, fuselage planking can be started.
Use 1/8 "x 3/8" medium hard strips and make a snug fit along fin junction. Plank down to crutch top.

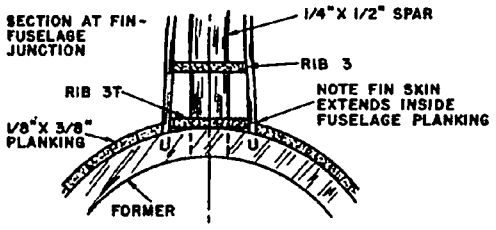
Build wing frames, leading edge, ribs and spars in same manner as fin. Fin and wing utilize same construction and duplicate ribs. Wing leading edge should be blocked up 9/16" and spars 5/8" for rib clearance. Note that right wing construction is same as fin while left wing has additional spar in the elevator. The right wing can be planked before joining to the fuselage, but the left wing should be left unplanked until it is attached and controls installed.

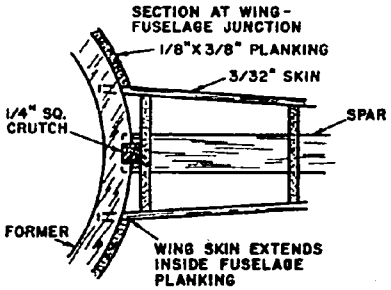
Complete building details are avail-able on the full size plans.



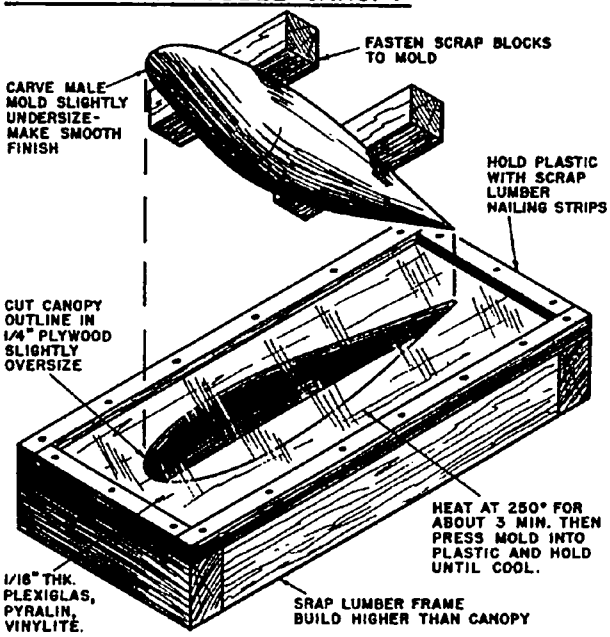
Isn't this just about the most beautiful model you've ever beheld? She's the successor to Mr. Lashek's widely publicized Dyna Jet powered Panther. Full size plans are available of the XF-92A, write Air Trails for info.

SKIN DETAILS



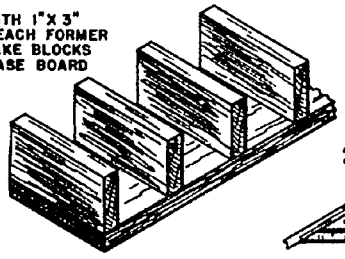


MAKING THE BUBBLE CANOPY

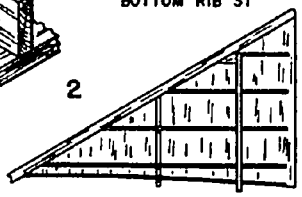


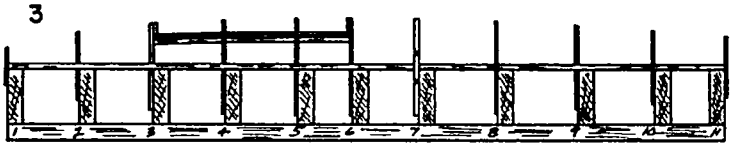
CONSTRUCTION STEPS

BUILD JIG WITH 1"X 3" BLOCKS AT EACH FORMER STATION - MAKE BLOCKS 6" LONG - BASE BOARD 40" LONG



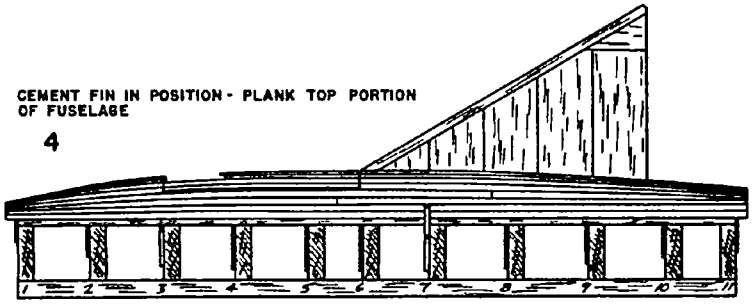
BUILD FIN FRAME FLAT OVER PLAN - PLANK WITH 3/32"X 3" LET SKIN EXTEND BEYOND BOTTOM RIB 3T

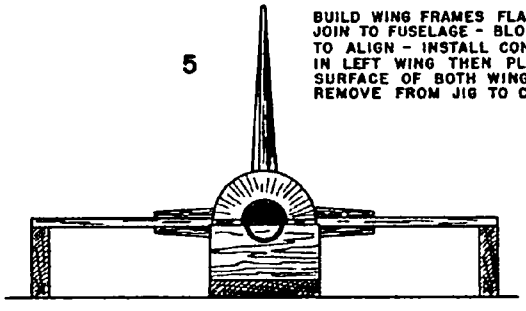




LAYOUT ℄ AND CRUTCH POSITIONS ON TOP OF 1"X 3" BLOCKS
JOIN FORMERS TO CRUTCH - ADD HATCH RAILS FROM 3 TO 6

CEMENT FIN IN POSITION - PLANK TOP PORTION OF FUSELAGE

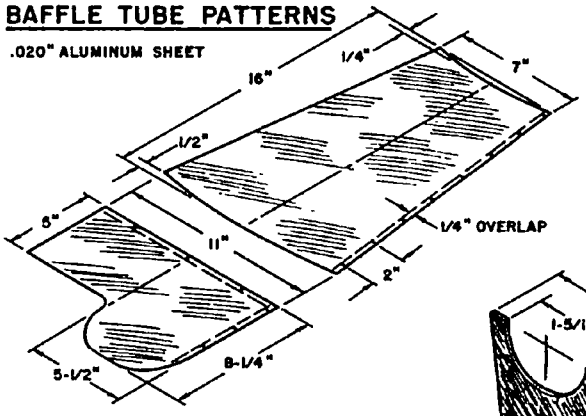




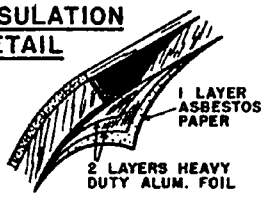
BUILD WING FRAMES FLAT OVER PLAN JOIN TO FUSELAGE - BLOCK UP TIPS TO ALIGN - INSTALL CONTROL SYSTEM IN LEFT WING THEN PLANK TOP SURFACE OF BOTH WINGS REMOVE FROM JIG TO COMPLETE

BAFFLE TUBE PATTERNS

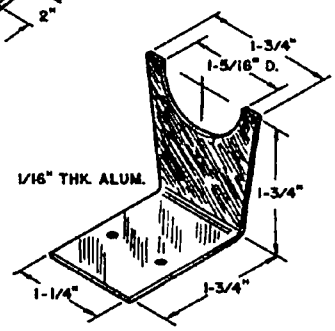
.020" ALUMINUM SHEET



INSULATION DETAIL



WATER GLASS ADHESIVE



FRONT ENGINE MOUNT