

PLEASE READ FIRST !!

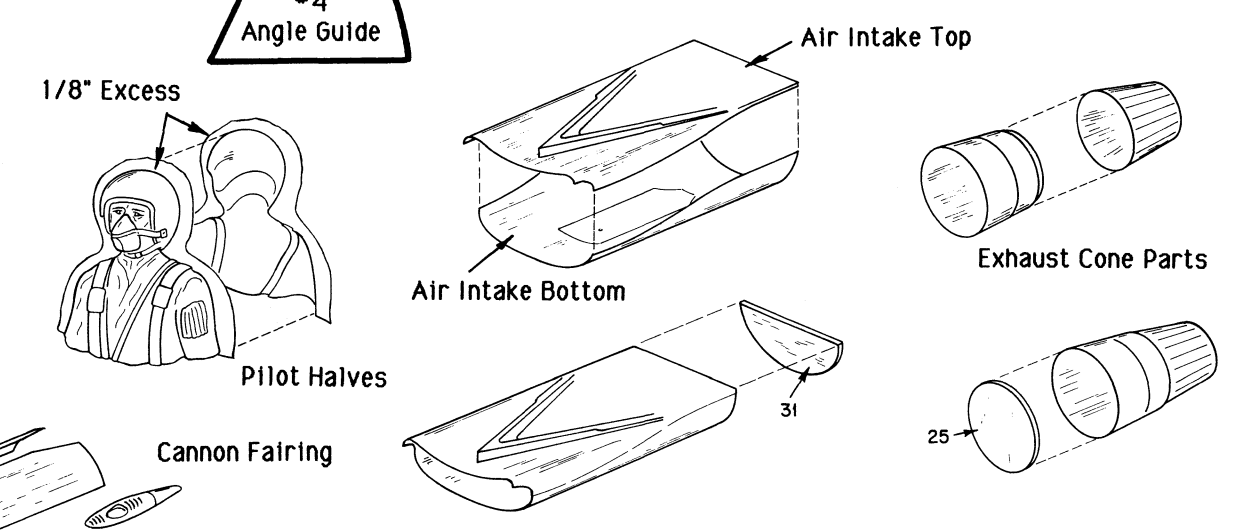
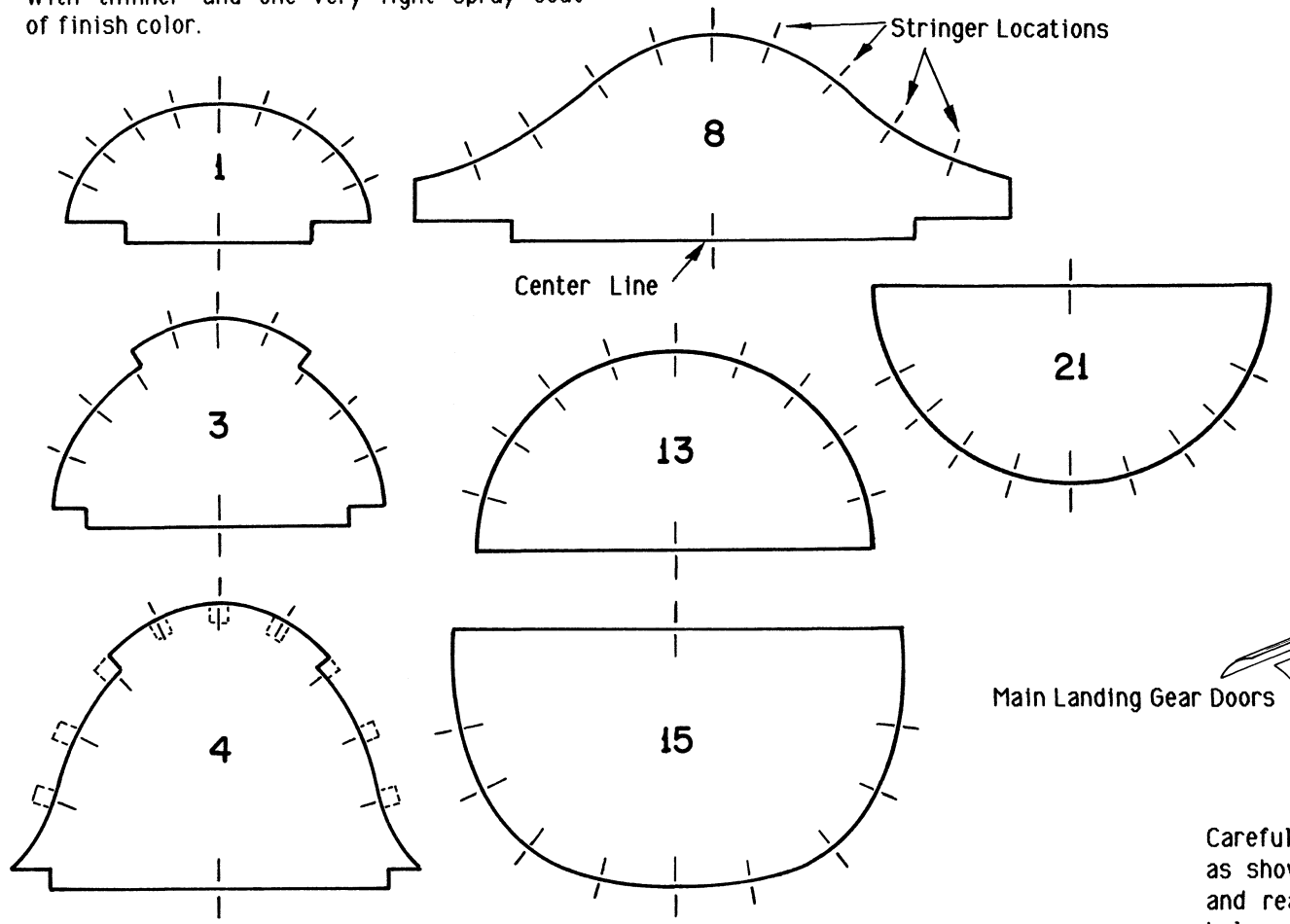
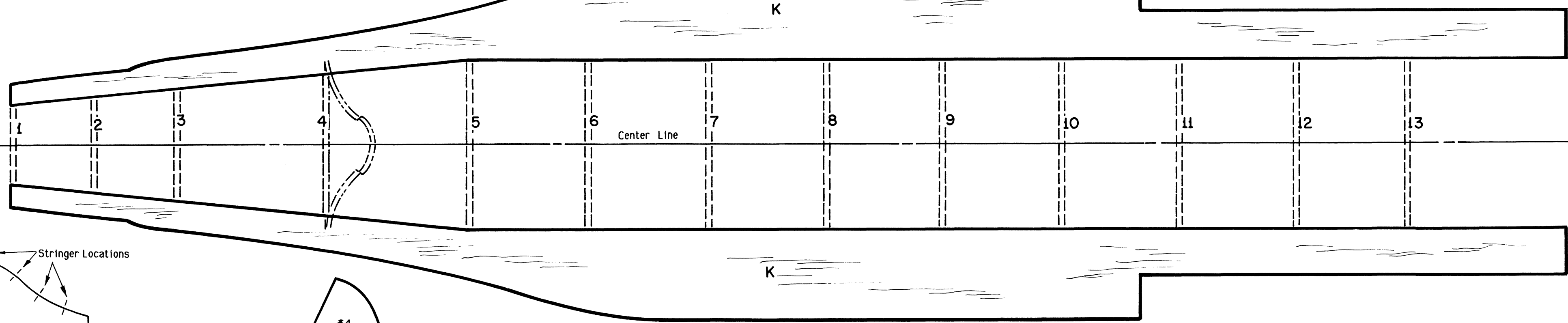
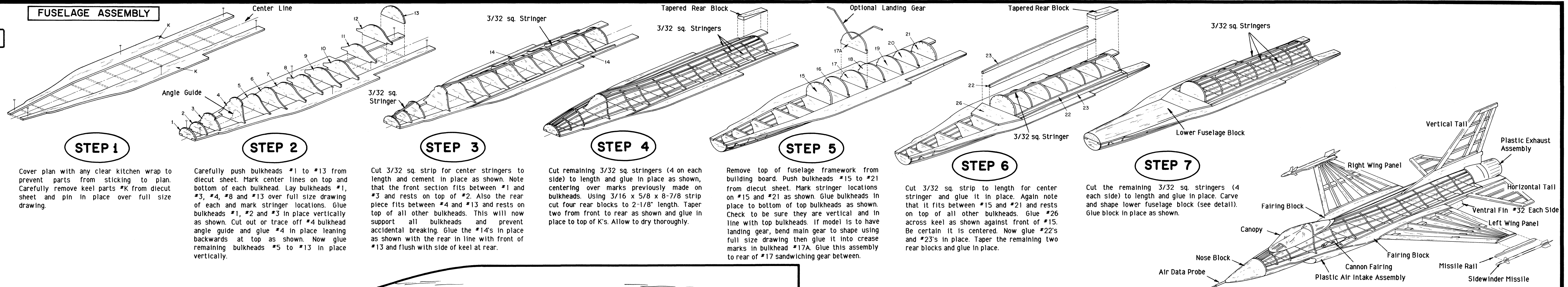
Before you start construction of your model, study the plan and construction procedure carefully so you have a complete understanding of the step - by - step method of building this airplane. Careful attention to detail, patience and workmanship will insure a beautiful model. Remember - work slowly and carefully at all times. This multi-purpose model has been designed to give you a variety of building choices. You can build the model for static display on table top with landing gear in position. You can build the model for static display in flying mode without landing gear (simulated retract position) or you can build the model for flying either as a hand launch or catapult launched glider. You must decide how you want to build your model now and then proceed accordingly. Choose a flat building board and always cover plan with a clear kitchen film to prevent parts from sticking to plan.

ADHESIVES YOU CAN USE

Your model can be built using many different products such as white glue, epoxy, regular model cements or cyanoacrylate (CA) glues. You may choose to use any one or a variety of these adhesives for your model. For example: white glue will not hold plastic parts together or on the model but any of the others will. **WARNING** - be very careful when using CA glues and read the manufacturers instructions completely.

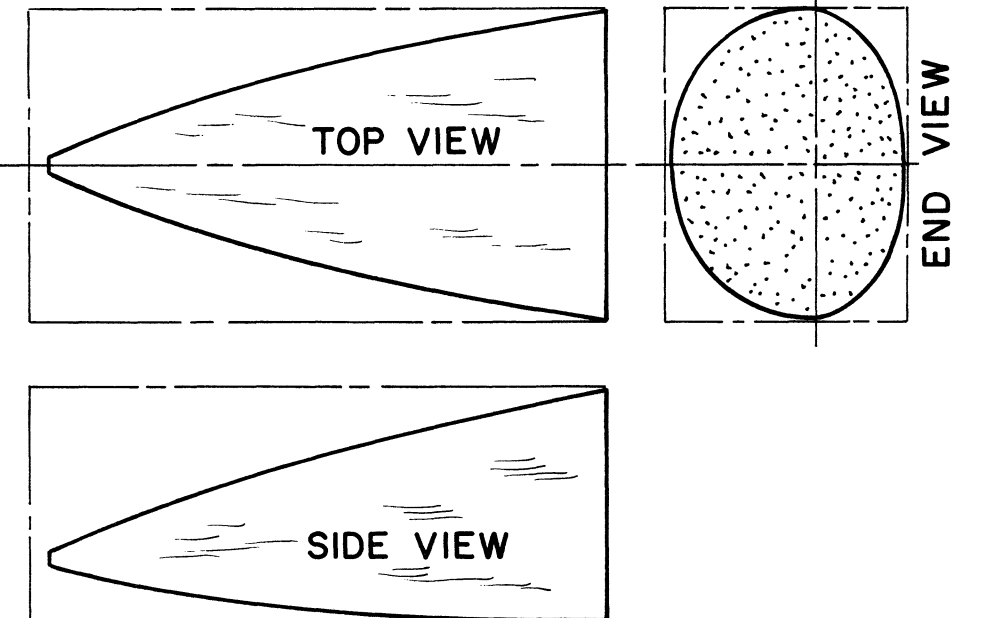
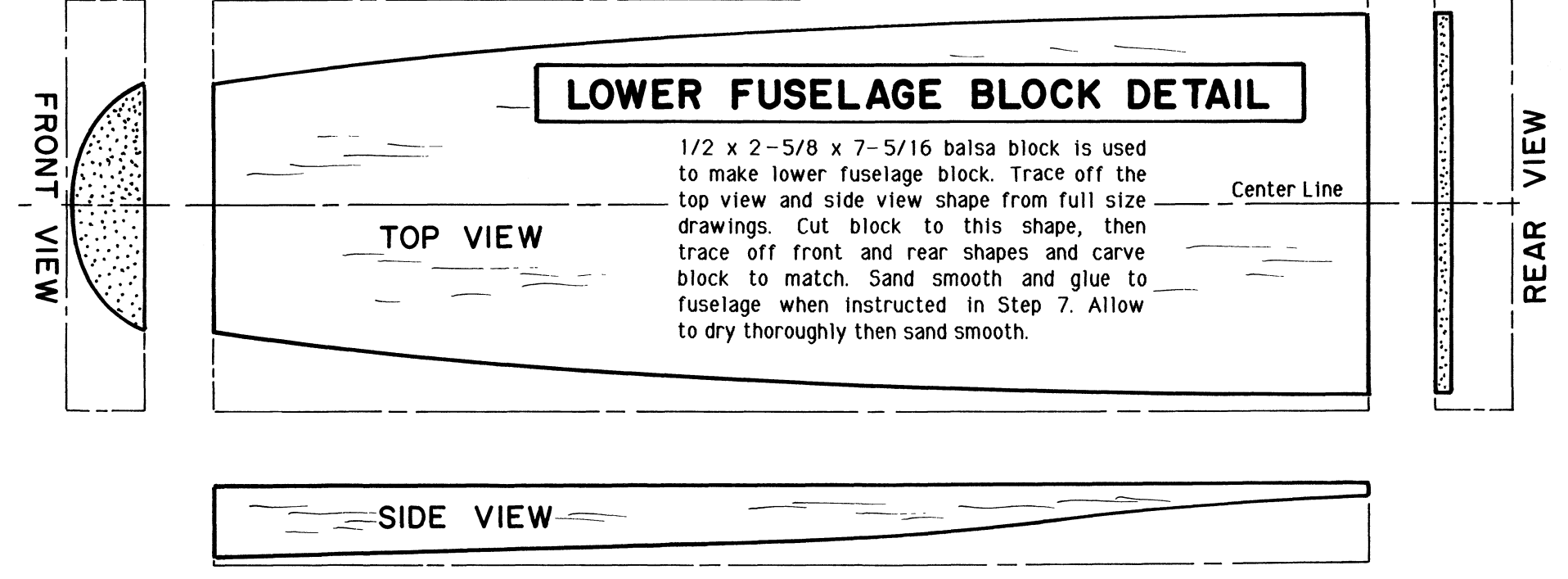
SUGGESTIONS FOR BUILDING A LIGHTWEIGHT FLYING MODEL

Sand all finished parts (wing panels, stab, vertical fin, fuselage) very carefully tapering surfaces (see specification views) so that all surfaces have a minimum of wood structure. Do not install landing gears, missiles, air probe, or any unnecessary details. After applying tissue use two coats of clear dope thinned 50 - 50 with thinner and one very light spray coat of finish color.



PLASTIC PARTS

Carefully trim all plastic parts from sheet as shown. Leave about 1/8" excess on front and rear pilot halves as shown. Glue pilot halves, top and bottom of air intake and the two parts that form exhaust. Allow to dry thoroughly! Trim excess from pilot and sand seam smooth. Cement #25 into front of exhaust assembly and #31 into rear of air intake. If landing gear is used trim nose gear door from air intake. Sandwich nose gear between #33 and #34 and glue in place as shown on side view.



Make balsa nose block using 1-1/4 x 1-5/8 x 3 stock. Trace off side view, top view and end view from plan. Trim and sand block to this shape and install in final assembly.

PROUD OF YOUR MODEL

If you wish, send us a photo of your completed model. We have a photo album for display at trade shows and exhibitions. Don't forget your name, address and age on back of the photo so we can credit the builder.

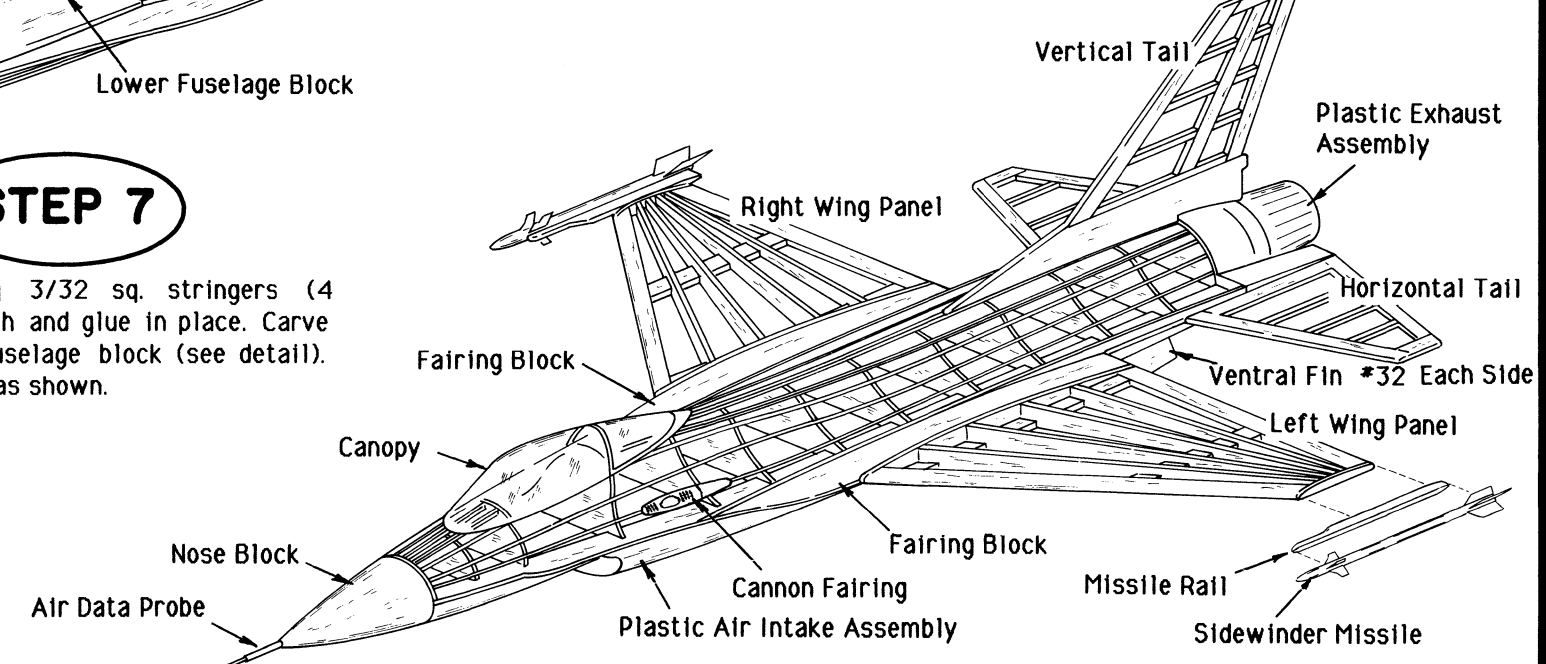
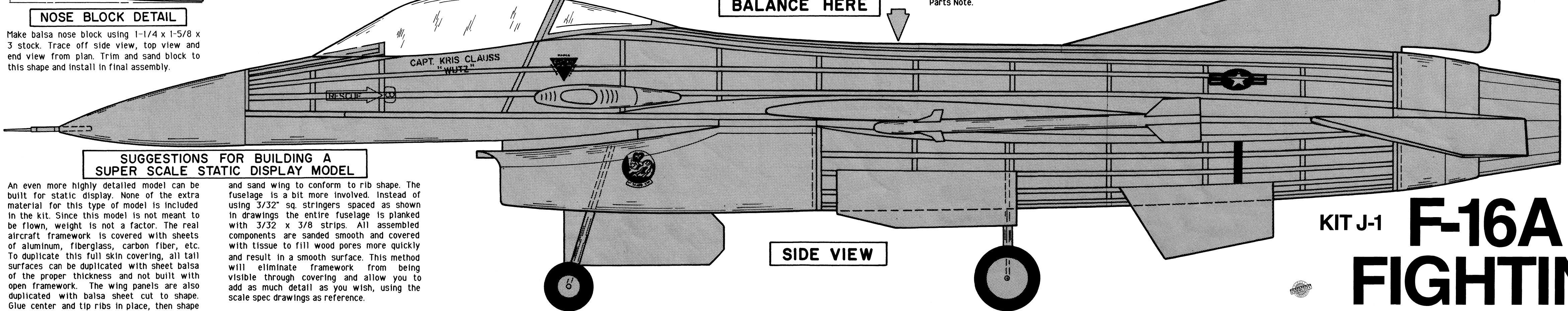
I NEED HELP

If, during the construction of your model you need a word of explanation to solve a building problem, just drop a line and we'll be glad to answer your question by return mail. We also welcome your comments or suggestions since we are intent on furnishing you the model builder with the finest scale flying model kits.

LANDING GEAR DETAIL

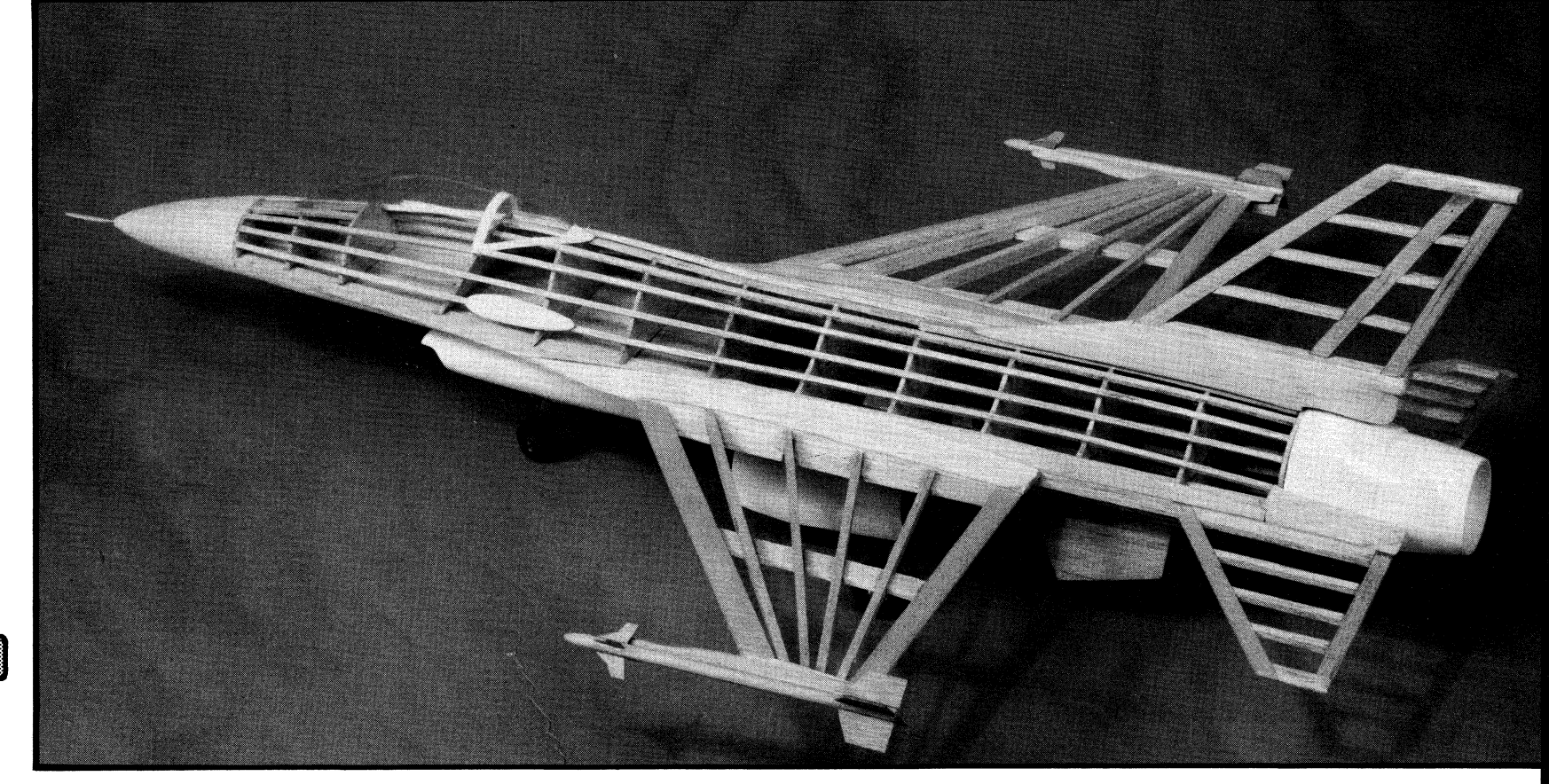
Landing Gear is optional. Cut and bend Main Gear and Nose Gear from .045 Dia. wire. Main Gear is installed in Step 5 and Nose Gear is installed as described in Plastic Parts Note.

BALANCE HERE

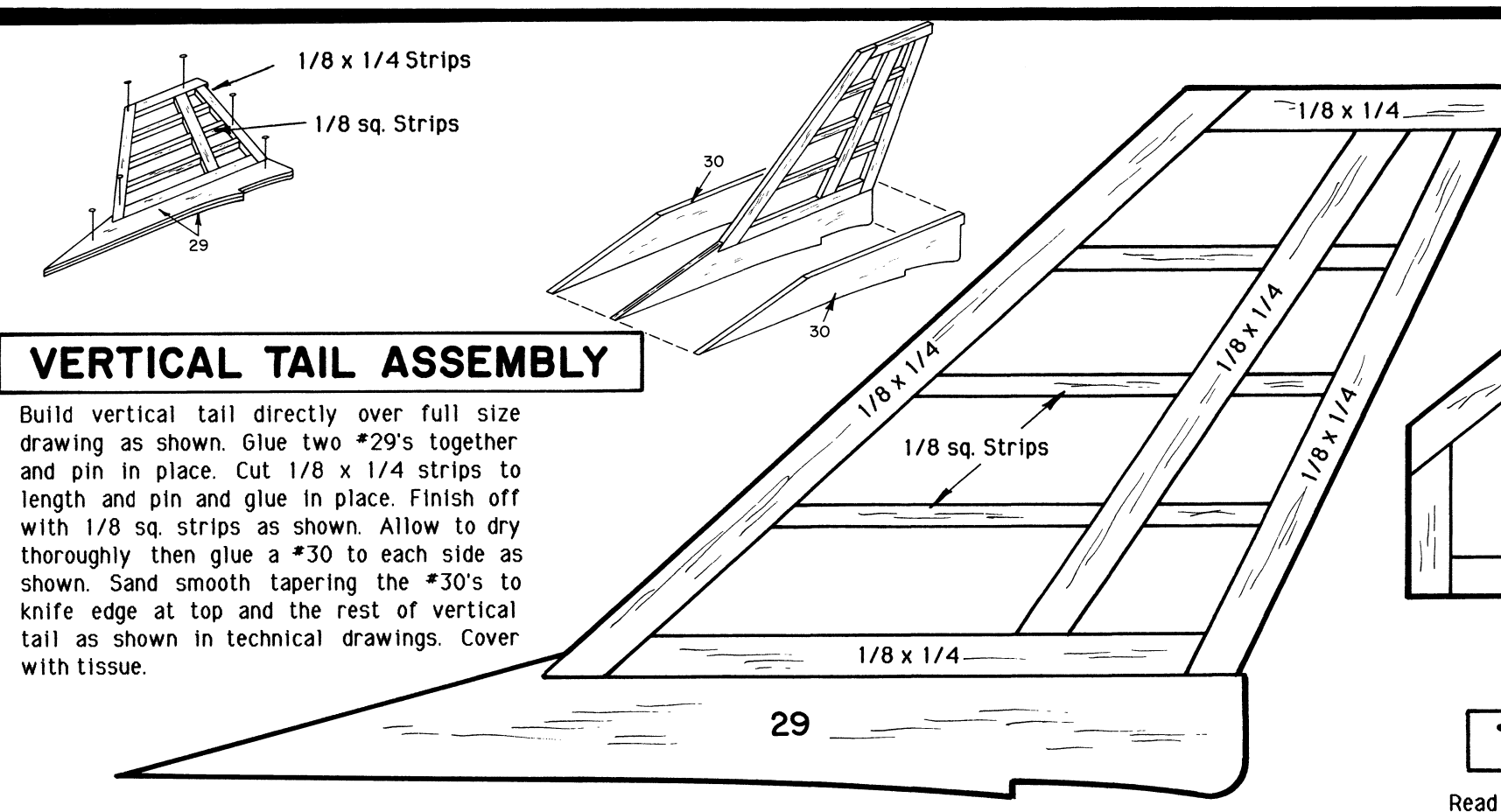


FINAL ASSEMBLY

Cut the 7/16 x 9/16 x 1/8 fairing block in half to 9" lengths. Place on top of keel against outside of #14 and trace off shape of #14. Put wing panel against outside of block, flush with bottom of keel and trace off top of wing shape. Trace off shape of keel at front of block. Remove block and cut and sand to shape as shown. Be sure to make a left and right hand. Glue fairings in place. Carve nose block (see detail) and glue to front of fuselage. Sand entire fuselage smooth. Trial fit all other parts, wings, tails and plastic parts to make sure everything fits well then cover fuselage with tissue. The final assembly sketch shows parts uncovered for clarity only. They are covered separately and then joined. Glue wings in place aligning carefully with keel and fairings. Glue plastic air intake and exhaust in place. Glue horizontal tails in place at downward angle using angle template. Glue vertical tail in place. Check alignment of all surfaces carefully as glue dries. Now you can glue cannon fairing in place. Make missile rails (see detail) and glue to wing tips at slight downward angle, (see side view). Cut and shape air data probe from 1/16 dia. dowel using side view for pattern. Drill hole in front of nose block and sand to shape as shown. Model is now painted. If it is to be a flying model use only two coats of clear dope thinned 50-50 with thinner then one light spray coat of color. If it is to be a static display model painted scale colors, see technical data and photo on box top. Assemble the two AIM-9 missiles (see detail). Paint and glue to rails as shown. Paint cockpit area flat black. Cut instrument panel from sheet and glue to back of #3. Pilot is optional. If pilot is used glue a scrap piece of balsa across cockpit as a support. Glue pilot in place. Trim out the clear canopy and paint framework area. Glue canopy in place.



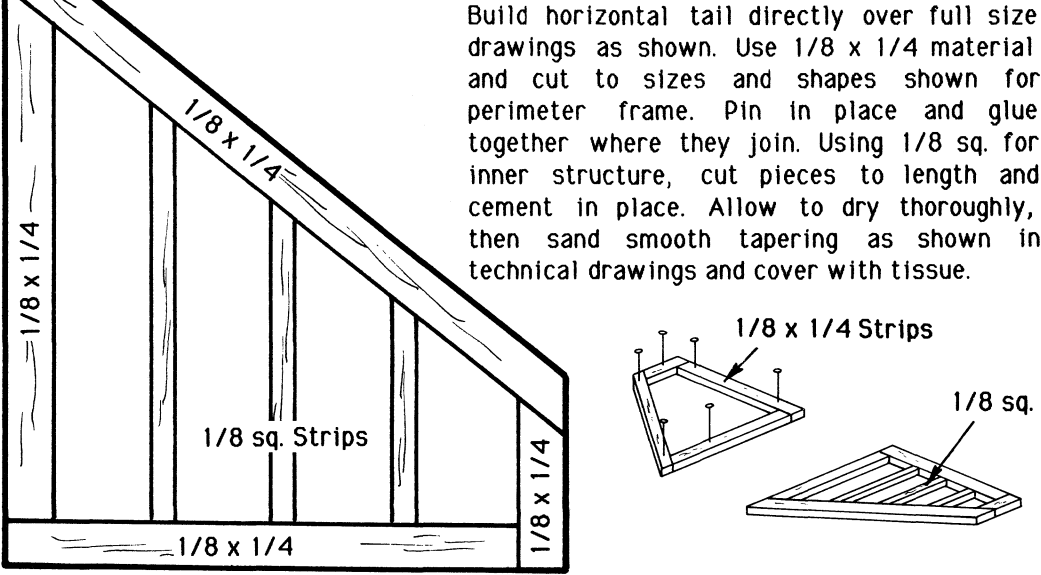
KIT J-1 F-16A FIGHTING FALCON
 1/24 Scale Balsa Kit
 Length: 24" Wingspan: 15"
TODAYS HOBBIES INC.



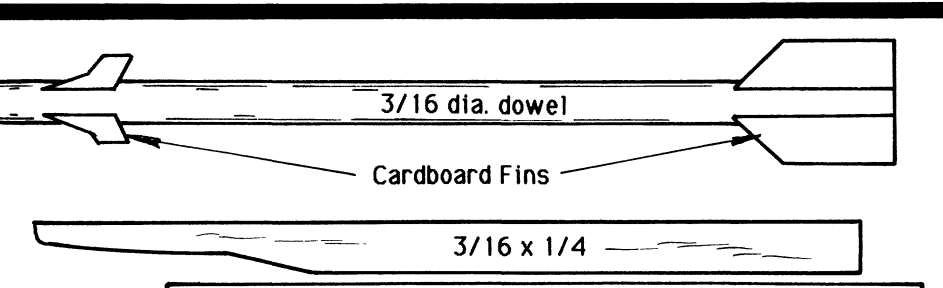
VERTICAL TAIL ASSEMBLY

Build vertical tail directly over full size drawing as shown. Glue two #29's together and pin in place. Cut 1/8 x 1/4 strips to length and pin and glue in place. Finish off with 1/8 sq. strips as shown. Allow to dry thoroughly then glue a #30 to each side as shown. Sand smooth tapering the #30's to knife edge at top and the rest of vertical tail as shown in technical drawings. Cover with tissue.

HORIZONTAL TAIL ASSEMBLY



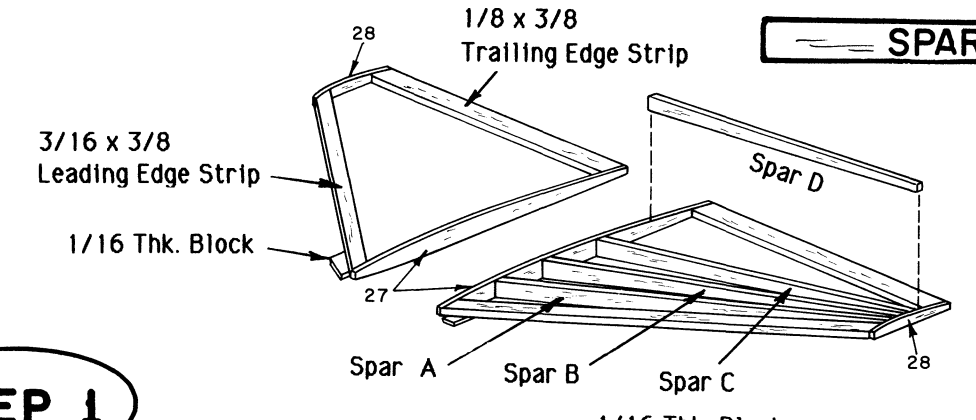
Build horizontal tail directly over full size drawings as shown. Use 1/8 x 1/4 material and cut to sizes and shapes shown for perimeter frame. Pin in place and glue together where they join. Using 1/8 sq. for inner structure, cut pieces to length and cement in place. Allow to dry thoroughly, then sand smooth tapering as shown in technical drawings and cover with tissue.



MISSILE RAIL & MISSILE ASSEMBLY

Make two missile rails from 3/16 x 1/4 balsa using full size drawing as pattern. Missiles are made from 3/16 dia. dowel cut to length and rounded on front. Cut the fins from cardboard sheet and glue in place. Missiles are painted white with black stripes as shown on photos on plan and box top.

WING ASSEMBLY



STEP 1

Cut two each of the four wing spars using material indicated. Pin rib #27 in place. Cut trailing edge from 1/8 x 3/8 strip and pin in place gluing to rib. Cut leading edge pin shape from 3/16 x 3/8 strip. Pin and glue in place blocking up center 1/16" with scrap block as shown. Pin and glue end rib #28 in place . Cut in place.

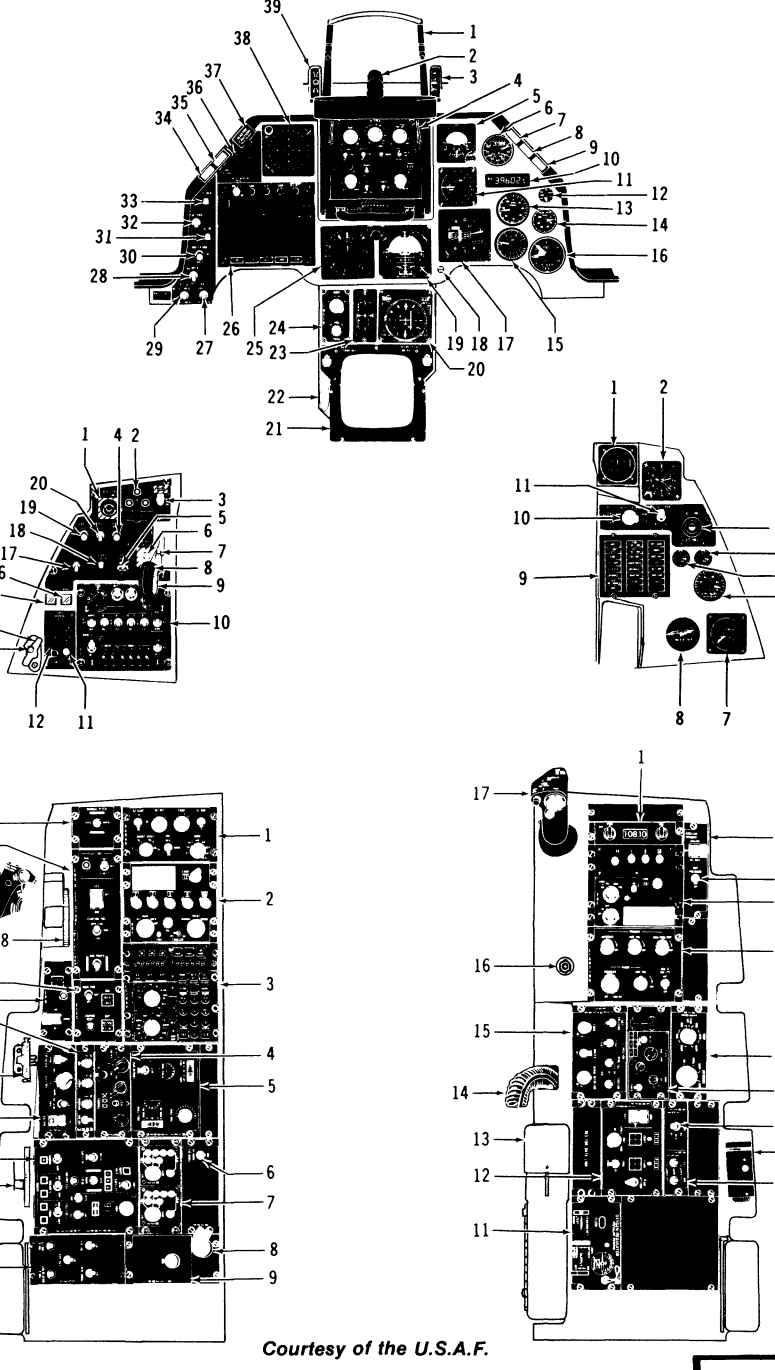
STEP 2

Using 1/8 x 3/8 strip, cut spar supports to lengths and shapes shown. Glue in place as shown. Be sure to lift front of inside front piece to match rib and leading edge. Build opposite panel in same manner. Allow to dry thoroughly, then remove panels from building board and sand smooth, rounding leading edge and tapering trailing edge to match wing ribs. Cover with tissue.

TISSUE COVERING

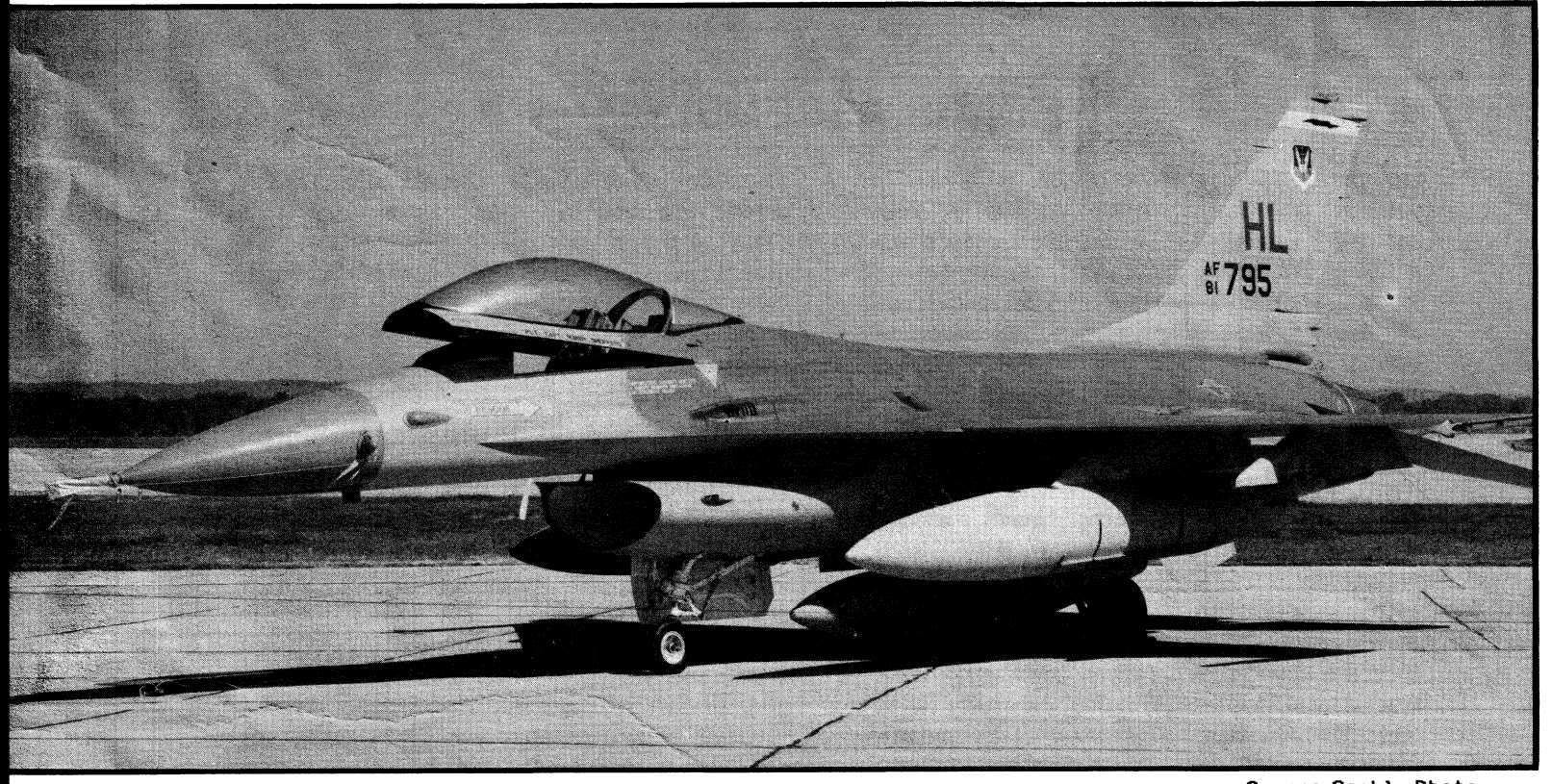
Read entire note before starting. The tissue supplied in this kit allows covering of compound curves without wrinkling when moistened with water before applying to framework. Tissue shrinks as it dries to a tight, smooth surface. Use clear dope to attach tissue as follows: Apply a light coat of dope to outside edges of area to be covered. Allow to dry and sand smooth with fine sandpaper. Cut tissue to shape needed plus about 1/2" oversize on all sides. Place tissue on a flat surface and dampen with moistened cloth by dabbing. Apply a second coat of clear dope to area to be covered, then place moistened tissue over frame and wet dope. Pull tissue gently to work out wrinkles and sags. Allow to dry - trim off excess. Apply two coats of clear dope (thinned 50-50 with thinner) before final assembly. All parts are covered with the largest piece of tissue possible without causing wrinkles. For instance: The wing panels can be covered with one piece for the top and one piece for the bottom. The same holds true for the tail parts. The fuselage however, will require many separate pieces. You can use your own skill and judgement to determine just how large and many pieces you will need to do the entire fuselage. Remember any area that develops wrinkles can be cut out and recovered. Check wing panels and tail surfaces for warps. If any have developed, they can be removed by holding over steam from a boiling kettle, and twisting gently in opposite direction. Check again when cool. BE CAREFUL - STEAM IS VERY HOT - DON'T BURN YOURSELF.

F-16A COCKPIT LAYOUT



KEYS TO CALLOUTS

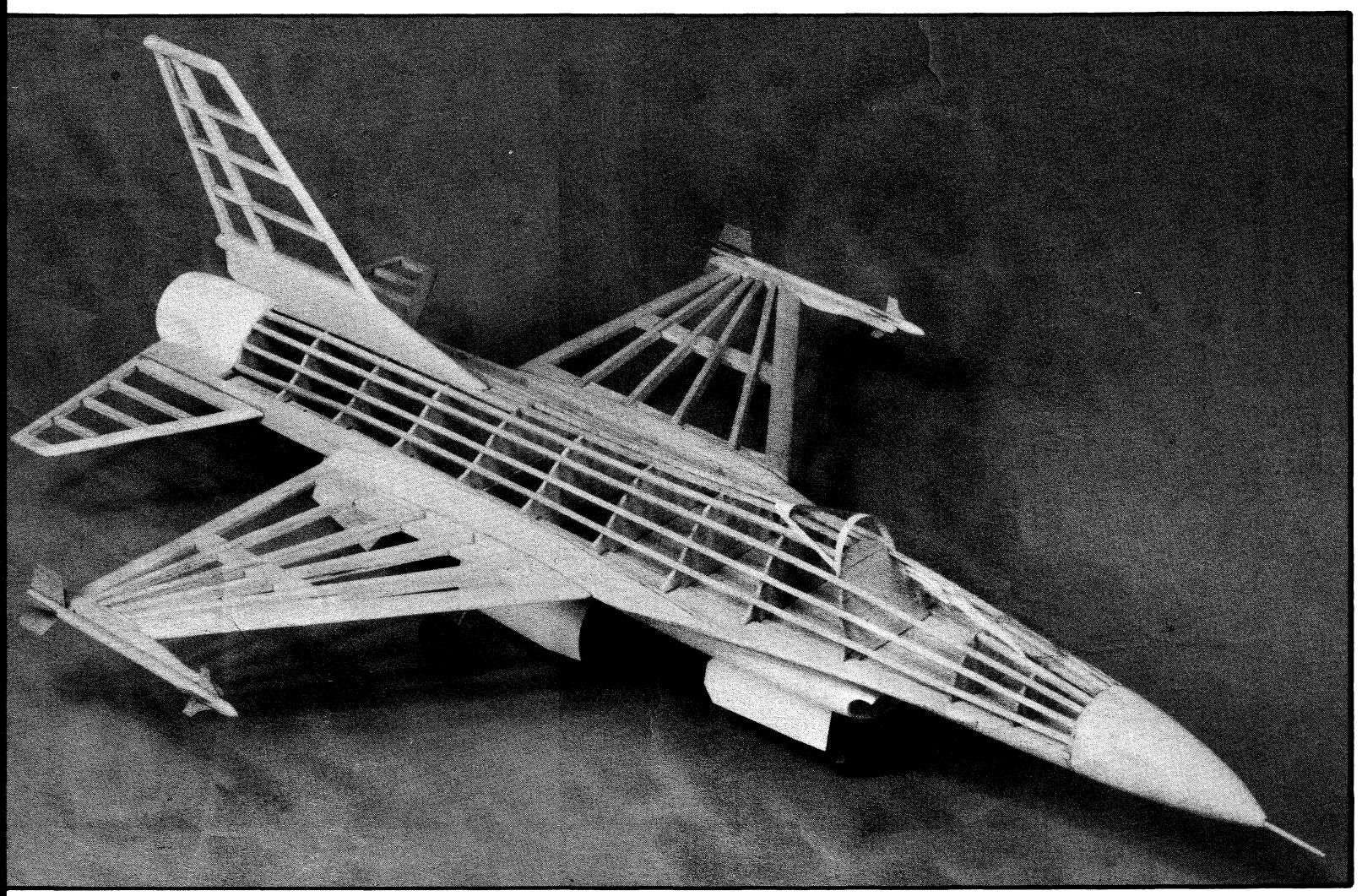
- 1 Radar EO Dowel
- 2 Rubber HOA, ADJ Knob
- 3 ADA Indicator
- 4 Instrument Mode Select Panel
- 5 Airspeed Mach Indicator
- 6 Inverse Control Panel
- 7 Autopilot ROLL Mode Switch
- 8 AUTOPILT Switch
- 9 Autopilot PITCH Mode Switch
- 10 ACESSARY AHA Switch
- 11 ALT REL Button
- 12 SMC Push Switch
- 13 #1 OBN Button
- 14 ENG FIRE Warning Light (Red)
- 15 E D LAND COMB Warning Light (Red)
- 16 THREAT WARNING Controls and Indicators
- 17 MASTER CAUTION Light (Amber)
- 18 THREAT WARNING Asmuth Indicator
- 19 ADA Inverse
- 20 Horizontal Situation Indicator (HSI)
- 21 Radar Control Panel
- 22 UP/Down Control Panel
- 23 Fire Control Navigation Panel (FNCP)
- 24 TACAN Control Panel
- 25 Manual Trim Panel
- 26 ECM Pod Control Panel
- 27 Airc-C Out Inset Connection
- 28 Fuel Control Panel
- 29 DEVOI Level
- 30 Fuel Control Panel
- 31 CANOPY JETTISON Handle
- 32 Control System Control Panel
- 33 EPU Control Panel
- 34 Control System Control Panel
- 35 Thrustle FRICIDA Control
- 36 Eng Air Data Storage Panel
- 37 MANUAL PITCH Overide Switch
- 38 CHAFF FLARE Dispenser Button
- 39 Thrustle
- 40 REDUCED IDLE THURSTLE Switch (Inoperable)



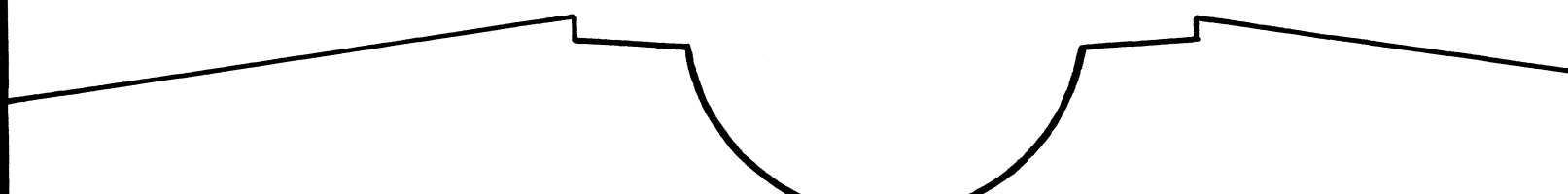
George Cockle Photo



George Cockle Photo



HORIZONTAL TAIL ANGLE TEMPLATE



PARTS IN THE KIT

We strive to supply quality materials in all our kits. All parts are inspected with regard to the function they serve. If an imperfection is spotted in a scrap area of die cut sheets, plastic parts, etc. and doesn't affect the actual part, the sheet is considered acceptable. Also, when wooden parts are cut, natural internal stresses can be relieved. These relieved stresses may allow parts to bow or twist. These will readily straighten out as parts are assembled into a structural unit.

SPECIAL THANKS TO BERT KINZEY & IN DETAIL & SCALE PUBLICATION FOR TECHNICAL REFERENCE DATA AND SPECIFICATION DRAWINGS

CAUTION

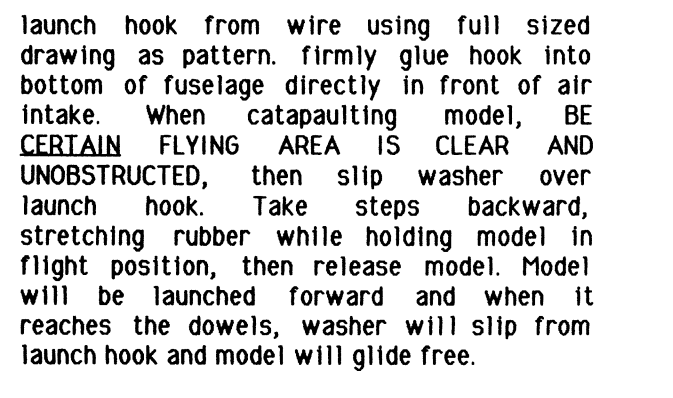
Do not fly any model in the vicinity of Electric Power Lines, or if flying sight is obstructed or spectators are in unsafe positions.

FLYING INSTRUCTIONS



CATAPULT LAUNCH FLYING

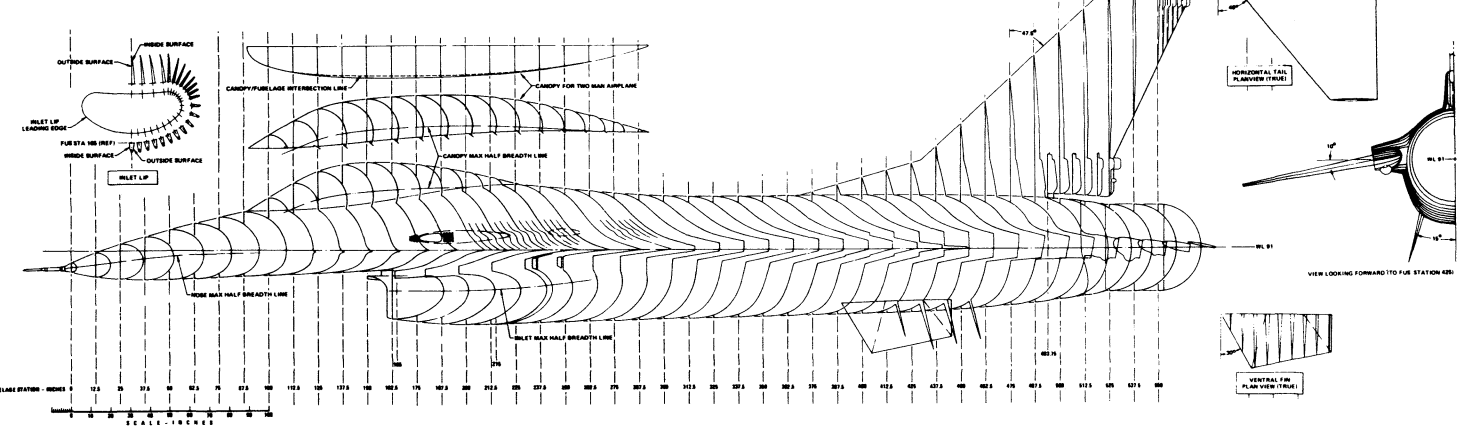
If you choose to fly your model as a Catapult Launched Glider read Suggestions For Building A Lightweight Flying Model. Balance and adjust model as described in Hand Launch Glider Note. None of the material required for Catapult Flying is supplied. Two 1/2" Dia. x 36" long hardwood dowels are FIRMLY driven into ground about 20 feet apart. A 30 foot length of 1/4" rubber strip is tied to the top of each dowel with a 5 foot length of strong string tied to middle of rubber strip. Now tie a metal washer to the other end of string. Bend a launch hook from wire using full sized drawing as pattern. firmly glue hook into bottom of fuselage directly in front of air intake. When catapulting model, BE CERTAIN FLYING AREA IS CLEAR AND UNOBSTRUCTED, then slip washer over launch hook. Take steps backward, stretching rubber while holding model in flight position, then release model. Model will be launched forward and when it reaches the dowels, washer will slip from launch hook and model will glide free.



HAND LAUNCH FLYING

If you choose to fly your model as a Hand Launched Glider read Suggestions For Building A Lightweight Flying Model. After construction is completed, model MUST balance at point shown on Side View. Add weight as needed to nose or tail. Choose a calm day for flying and a field with tall grass for first test flights. Allow model to rest on your forward hand at air intake and push off hard and slightly nose down with your other hand. If model stalls and balance is correct - adjust horizontal tail to a slightly down position. If model dives adjust tail up slightly. Continue adjustments until model glides well. Remember - this is a scale model of a Jet Airplane. Flying speed is CRITICAL due to small wing area and heavy loading. Model will glide well under speed and drop quickly when flying speed is lost.

LAUNCH HOOK



General Data

WINGS		VERTICAL FIN (EACH)			
Area.....	300 Sq. Ft.	Area.....	803 Sq. Ft.		
Span.....	35 Ft. 0 In.	Aspect Ratio.....	22.29 (Theor) (27.5 In. Actual)		
Aspect Ratio.....	6.375 (Theor)	Tip Speed.....	0.472 (Theor)		
Tip Speed.....	63.275	Tip Angle.....	32°		
Sweep (L.E.).....	40°	Distal (Cant).....	15° Outboard		
Dihedral (Cant).....	10°	Airfoil.....	NACA 644204		
Airfoil.....	NACA 644204	At Root.....	3.868 x Modified Wedge		
Incidence.....	0°	At Tip.....	Constant 0.038		
Twist.....	0°	SPEED BRAKE			
At Root.....	0°	Area (4 Element Crowlark).....	14.26 Sq. Ft. (3.665 Sq. Ft. Ea.)		
At S. 180.0.....	3°	LANDING GEAR			
Fuselage Area.....	31.32 Sq. Ft.	Main Gear.....	25.5 x 8.14		
L.E. Flap Area.....	36.71 Sq. Ft.	Nose Gear.....	11.0 In.		
HORIZONTAL TAIL (MOVABLE)		Steno. Rolling Radius.....	11.0 In.		
Area.....	49.0 Sq. Ft.	Nose Gear.....	18 x 5.58		
Aspect Ratio.....	2.598	Steno. Rolling Radius.....	7.5 In.		
Tip Speed.....	62.3	Preparation.....	Engine.....	F100 PW (1003) Thrust.....	11,000 Lb (Clint)
Sweep (L.E.).....	10°	Engine Compressor.....	34.8 In.		
Dihedral.....	10°	Face Dia.....	34.8 In.		
Airfoil.....	05 Bicouver	Engine Length.....	191.16 In.		
At Root.....	3.3 Bicouver				
At Tip.....	3.3 Bicouver				

TECHNICAL DATA

WEIGHTS:

F-16A
Weight Empty 14,567 lbs.
Internal Fuel 6,972 lbs.
Takeoff Weight (Air-to-Air Without Tanks) 22,785 lbs.
F-16A
Maximum Takeoff Weight 33,000 lbs.

DIMENSIONS

Wingspan:	30' 0"
W/O Missile Rails:	31' 0"
With Missiles:	32' 10"
Wheel Tread:	7' 9"
Length (W/O Pitot):	47' 7.6"
Height:	16' 5.2"
Horizontal Tail Span:	18' 0.34"

General Arrangement

