



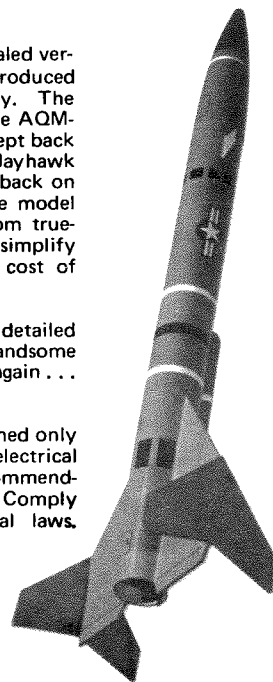
JAYHAWK

TARGET MISSILE

The Centuri JAYHAWK is a semi-scaled version of a small target missile drone produced several years ago for the U.S. Navy. The real Jayhawk, officially designed the AQM-37A Missile Target, had fins that swept back from the mid-section. The Centuri Jayhawk fins originate from a point further back on the body, to ensure a more stable model rocket flight. Other deviations from true-scale appearance were made, to simplify construction and hold down the cost of the kit.

The unusual twin-rudder fins and detailed 3-color decal sheet will give you a handsome model that can be flown again and again . . . when its not on your display shelf.

This rocket is designed to be launched only from standard remote-controlled electrical launch systems. Always use the recommended engines and recovery wadding. Comply with all Federal, State, and local laws.



MODEL ROCKETEER'S SAFETY CODE

CONSTRUCTION

My model rockets will be made of only lightweight materials such as paper, wood, plastic, and thin metallic foils, with the exception of payloads and engine holders made of wirelike material.

ENGINES

I will use only pre-loaded factory made model rocket engines in the manner recommended by the manufacturer. I will not change in any way nor attempt to reload these engines.

RECOVERY

I will always use a recovery system in my model rockets that will return them safely to the ground so that they may be flown again.

WEIGHT LIMITS

My model rocket will weigh no more than 453 grams (16 oz.) at liftoff, and the engines will contain no more than 113 (4 oz.) of propellant, as prescribed by Federal Regulations.

STABILITY

I will check the stability of my model rockets before their first flight except when launching models of already proven stability.

LAUNCHING SYSTEM

The system I use to launch my rockets will be remotely controlled and electrically operated, and will contain a switch that will return to "off" when released. I will remain at least 10 feet away from any rocket that is being launched.

LAUNCH SAFETY

I will not let anyone approach a model rocket on a launcher until I have made sure that either the safety interlock key has been removed or the battery has been disconnected from my launcher.

LAUNCH AREA

My model rockets will always be launched from a cleared area, free of any easy-to-burn materials, and I will only use non-flammable recovery wadding in my rockets.

BLAST DEFLECTOR

My launcher will have a blast deflector device to prevent the engine exhaust from hitting the ground directly.

LAUNCH ROD

To prevent accidental eye injury I will always place the launcher so the end of the rod is above eye level or cap the end of the rod with my hand when approaching it. I will never place my head or body over the launching rod. When my launcher is not in use I will always store it so that the launch rod is not in an upright position.

POWER LINES

I will never attempt to recover my rocket from a power line or other dangerous places.

LAUNCH TARGETS AND ANGLE

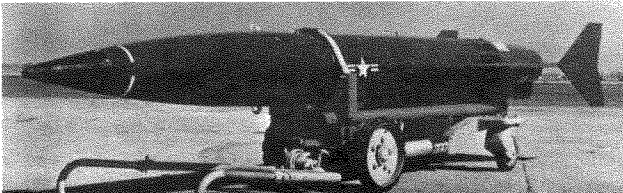
I will not launch rockets so their flight path will carry them against targets on the ground, and will never use an explosive warhead nor a payload that is intended to be flammable. My launching device will always be pointed within 30 degrees of vertical.

PRE-LAUNCH TEST

When conducting research activities with unproven designs or methods, I will, when possible, determine their reliability through pre-launch tests. I will conduct launchings of unproven designs in complete isolation from persons not participating in the actual launching.

FLYING CONDITIONS

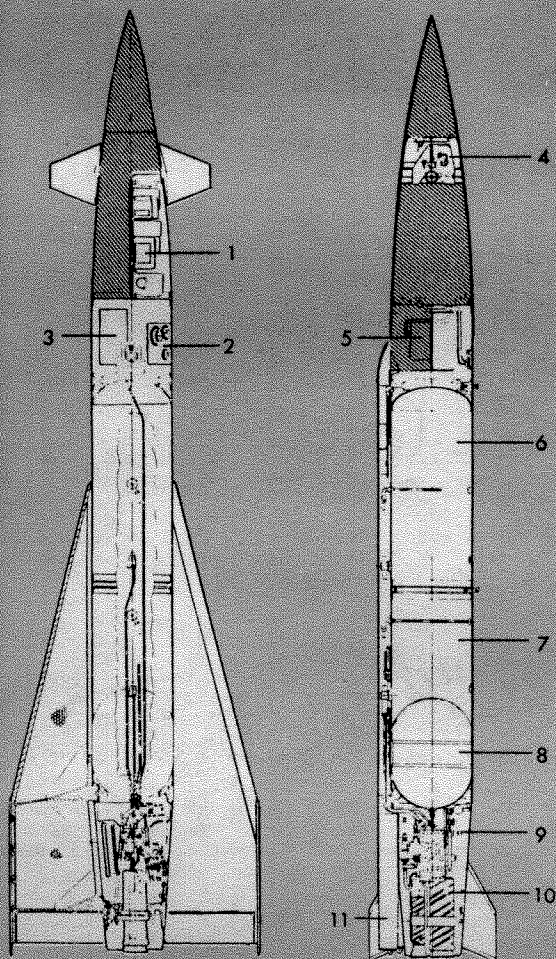
I will not launch my model rocket in high winds, near buildings, power lines, tall trees, low flying aircraft or under any conditions which might be dangerous to people or property.



The Jayhawk is a drone type of cruising missile used as a target in aerial combat training. The Jayhawk, shown resting on its handling dolly, gives U.S. Navy pilots practice at supersonic aerial interception. It's low cost and high maneuverability made it ideal for aerial target practice, where fighter pilots could develop lightning fast reflexes.



Note the small size of this particular Jayhawk. The drone was developed in several larger sizes also, with speeds up to Mach 4.0 and altitudes to 100,000 feet.



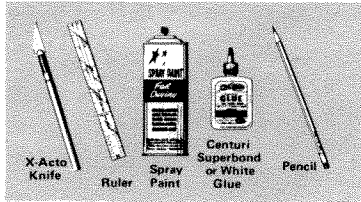
1. Electronic Components
2. Flight Control Panel
3. Batteries

4. Canard Controls
5. Radar Beacon (Optional)
6. Oxidizer Tank (Irfna)
7. Fuel Tank (Maf-4)
8. Pressurant Tank (Nitrogen)
9. Aerodynamic Destructor
10. Rocket Engine
11. Flare Container (Optional)

ASSEMBLY INSTRUCTIONS

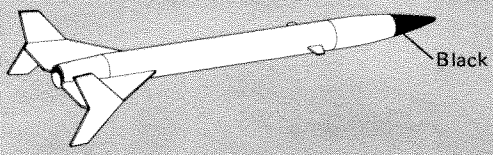
READ BEFORE STARTING ASSEMBLY

TOOLS: The Jayhawk may be easily assembled with the standard model rocket tools shown below. **DO NOT** use model airplane glue for building flying model rockets.

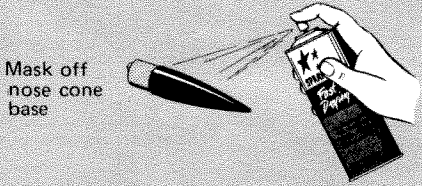


You may wish to consider this optional paint treatment, before you even start assembling the Jayhawk:

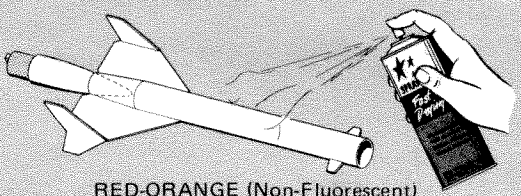
A. The Jayhawk pictured on the package exterior is entirely one color (a special reddish-orange) except for the front half of the nose cone, which is black.



B. If you want to have this unusual paint treatment on your model, spray paint the nose cone with PRIMER, then glossy black, before doing any assembly.



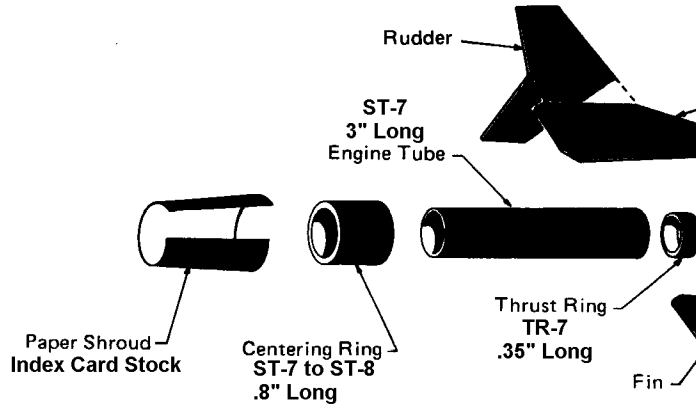
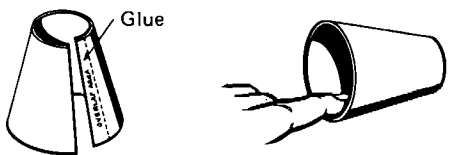
C. Later, when the entire model is built, simply insert the nose cone firmly into the model's engine tube. Now, spray paint the entire model. When the paint is dry, remove nose cone and you'll have a neat, sharp, two-color paint scheme!



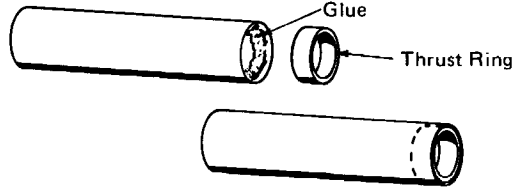
1 Cut out the paper shroud carefully. Pre-curl the paper (with shiny surface outside) by running it under a straight edge on a clean, flat surface. Curl paper carefully and gradually so as to prevent creases from forming.



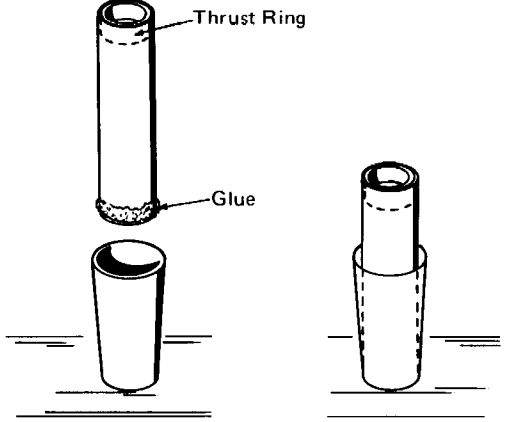
2 Form the paper into a cone and apply a thin film of glue on the overlap area marked on the shroud. Be careful not to smear glue on the exposed part of the paper. Line up the edge of the paper with the dotted line and press together on a flat surface. Test-fit the shroud with engine tube and body tube . . . adjust if necessary. Set the shroud aside to dry.



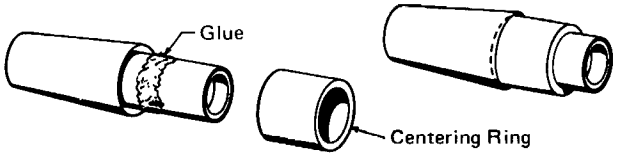
3 Run a bead of glue around the inside of one end of the 3" engine tube. Insert the thrust ring, flush with the tube's end.



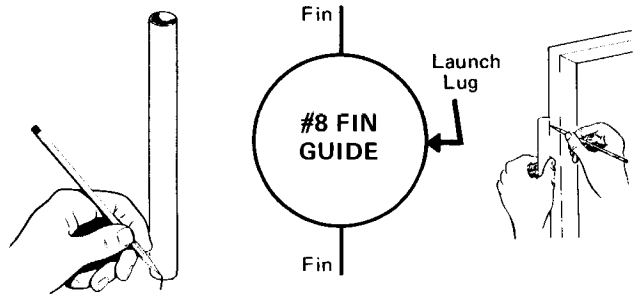
4 Stand the paper shroud up right on its small end. Run a bead of glue around the rear end of the engine tube, and insert it firmly down into the shroud.

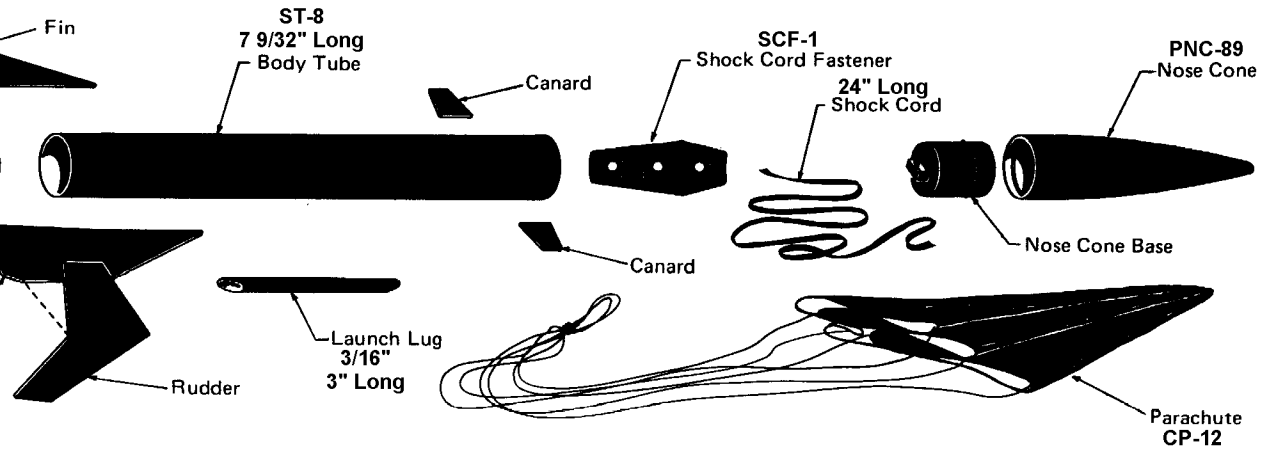


5 Run a generous bead of glue around the exposed part of engine tube. Slide the centering ring over this tube, gently positioning it just barely down into the shroud.



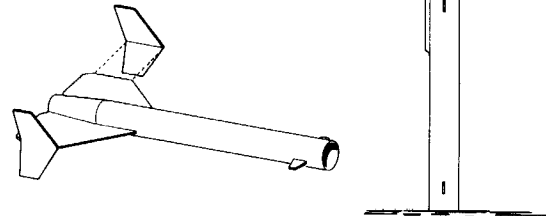
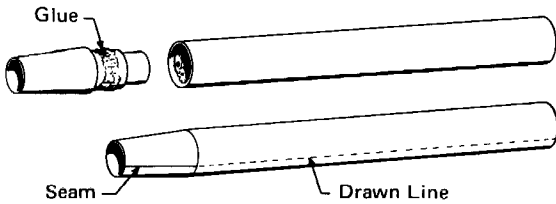
6 Stand the body tube on the fin guide to mark fin and launch lug locations. Find a convenient channel or groove, such as a door jamb, partially open drawer, or molding. Extend the marks the full length of the tube.





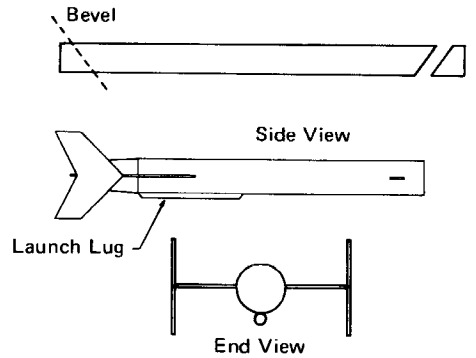
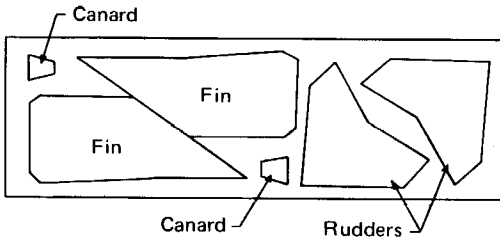
7 Run a bead of glue around engine mount centering ring and inside one end of the body tube. Insert the engine mount with a firm turning motion. **NOTE: BE SURE TO LINE PAPER SHROUD SEAM WITH ONE OF THE DRAWN FIN LINES**, so the seam will be hidden when a fin is glued on later.

11 Run a bead of glue along each fin's outer edge, and position the rudders. Check end view and side view for neat alignment, and stand model on end and allow to dry for a few minutes.



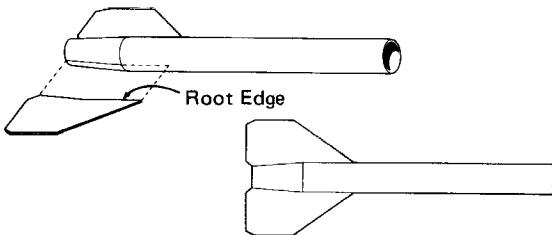
8 Carefully press the fin parts from their die-cut sheet, and trim away any little "ticks" from the edges if necessary. These fins will be easier to paint than balsa wood, due to the smooth paper surface.

12 The large launch lug also simulates the "flare tunnel" of the real Jayhawk. For best appearance, cut the ends to a bevel with a sharp modeling knife or razor blade. Glue in place on drawn line, centered between fins.



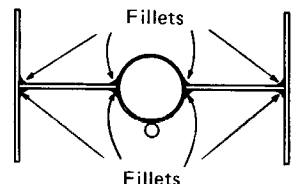
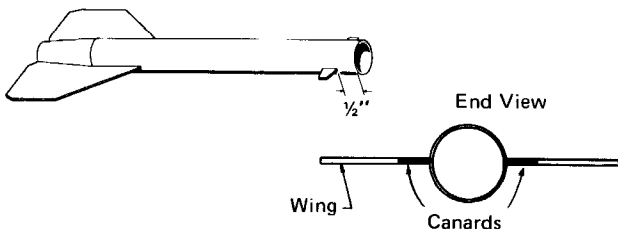
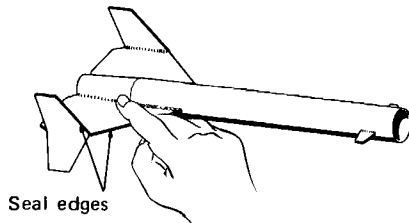
9 Apply a bead of glue to one fin's root edge and press onto the lower body tube along a drawn line. Remove, allow it to become tacky. Add fresh glue to fin, and reposition. Repeat with the other fin. Note how one fin should cover the seam on the paper shroud.

13 Seal all exposed fibre-fin edges with a thin film of glue for best appearance.



14 Run a bead of glue along each indicated joint and smooth into neat fillets with your finger. Use glue sparingly and wipe away excess. Allow to dry thoroughly before painting, but don't let any fins sag.

10 The canards are positioned $\frac{1}{2}$ " back from the forward end of the body. Check for neat alignment by sighting along end view.



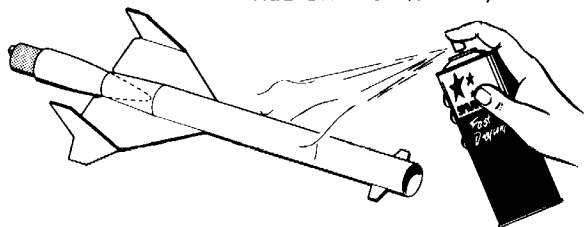
NEVER USE "DOPE" ON PLASTIC PARTS:

15 Spray painting your finished model with a fast-drying enamel will produce the best results ... **IF IT IS DONE PROPERLY!!!** Most important is the number of coats of paint. **DO NOT** try to paint your model with one heavy coat! Instead, give it a couple of quick, light coats first and **THEN** a finish coat. Let each coat dry before applying the next.

When all glue joints are thoroughly dry, the model is ready to be painted. Insert nose cone into rear of rocket.

RECOMMENDED COLOR SCHEME:

Spray paint entire model
RED-ORANGE (or **RED**, or **ORANGE**)

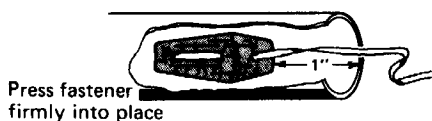


16 When paint is dry, install recovery system. Peel the backing from the shock cord fastener. Thread the end of the elastic shock cord through the fastener as shown. Take care not to touch the adhesive backing any more than absolutely necessary. Slightly crease the fastener lengthwise to allow easy insertion into the tube.



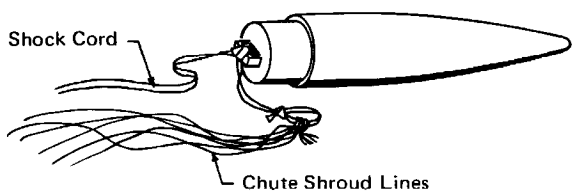
Press end of shock cord against adhesive back of fastener

17 Insert the fastener 1" past the top of the body tube. Press firmly against the inside wall of the tube with a finger or eraser end of a pencil. **NOTE:** All edges of the fastener must be firmly contacted to the tube to insure a permanent bond.



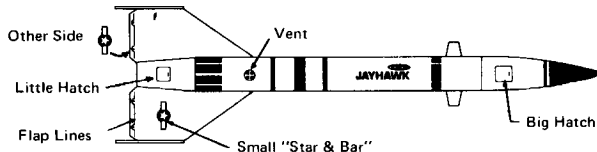
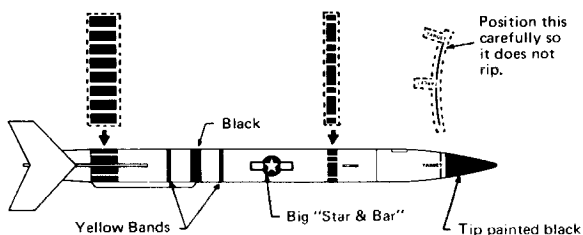
Press fastener firmly into place

18 If its not already done for you, push the plastic insert base into the plastic nose cone until it snaps in place. (Be careful not to break the cone.) Pass one end of the shock cord through the eyelet and tie with a firm knot. Tie the assembled parachute's shroud lines onto the free end of shock cord.



19 Apply the decals, one at a time, according to the instructions printed on the decal backing paper. Refer also to the package illustration for placement. The five long bands are applied around the body tube. Any bands positioned around the fin area will have to be cut to fit, of course.

SUGGESTED PLACEMENT:



ENGINES

Igniters and complete engine installation instructions are included in "Engine Operating Instructions" which accompany all Centuri Engines.

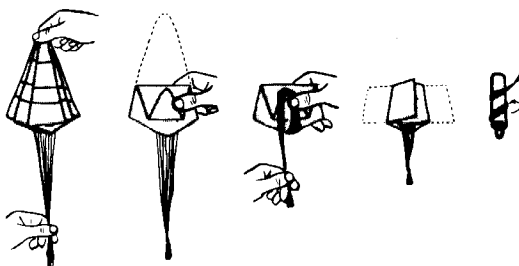
The Jayhawk can be launched with the following engines:

ENGINE	APPROXIMATE ALTITUDE	PURPOSE
1/2A6-2 A5-4	150 - 400 Ft.	LOW ALTITUDE - for first test flights and small launch areas.
B4-6 B6-6	700 - 1000 Ft.	MEDIUM ALTITUDES - for general flying and medium size launch areas.
C6-7	1200 - 1800 Ft.	HIGH ALTITUDES - for extremely high flights and large launch areas.

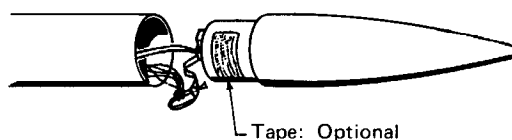
NOTE: The Jayhawk does not have an engine lock, due to the paper shroud. Be sure to friction fit your engine with tape, as explained in the engine instruction sheet.

FLIGHT PREPPING

1. Inspect shock cord fastener for firm bond.
2. Insert Flameproof Parachute Wadding according to its directions.
3. Tuck in shock cord.
4. Roll chute tightly as shown, and insert.
5. Socket nose cone in place.



Cone fit: Snug, but not too tight.



Carefully prepare and check all parts of your rocket before each flight.

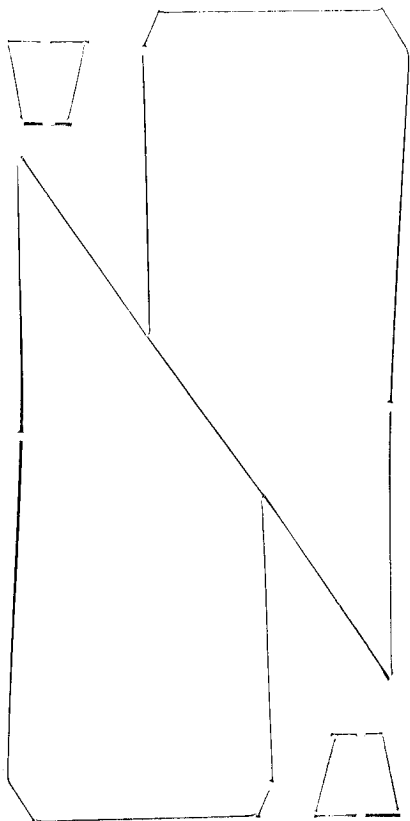
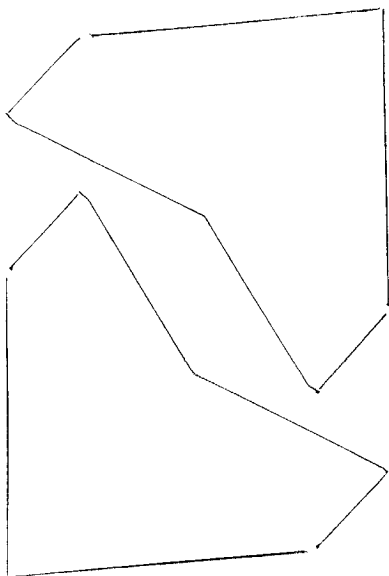
Launch the Jayhawk from any standard model rocket launcher having a 1/8" diameter x 36" long steel launch rod.

Do not leave the rocket sitting in the sun for long periods as this may soften the adhesives,

Referring to the specific instructions which accompany Centuri launchers and firing panels, mount the rocket on the launcher and prepare for ignition. Avoid eye injury by capping the exposed tip of the launch rod when not actually launching! Follow instructions and the Safety Code, and have many happy hours with Model Rocketry.



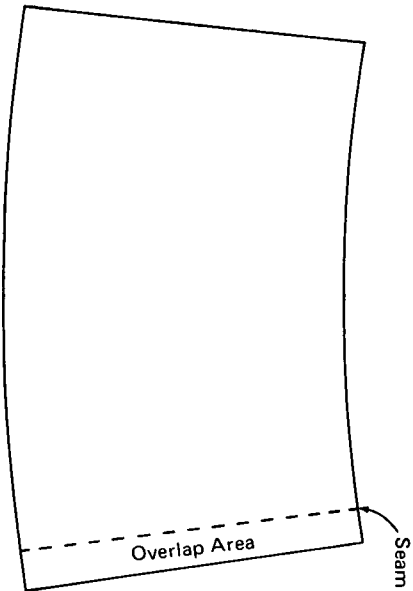
.050" Thick White Faced Fiber Card



1 Inch

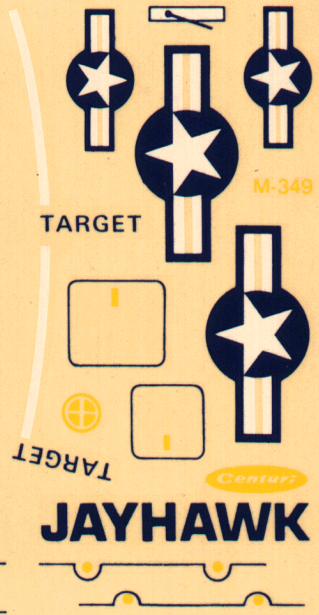
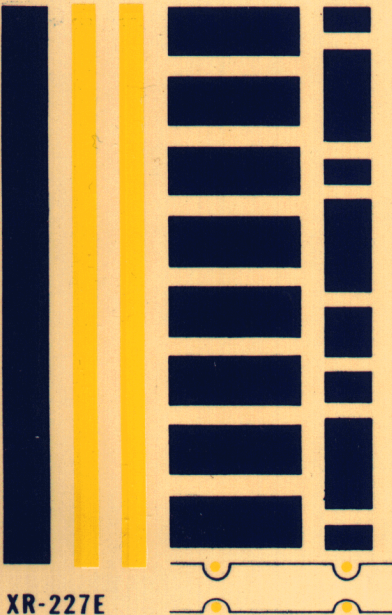
IP-475

LONG #7 - 8 SHROUD



Index Card or File Folder Stock

XR-227E



TARGET

M-349

TARGET

CENTUR

JAYHAWK

Contour

SPECIFICATIONS

Designation

JAYHAWK

Length

12.6"

Net. Wt.

1 oz.

Recom.

1/2 A6-2 A5-4 B4-6

Engines

B6-6 C6-7

Parachute Recovery

IP-662

BONUS

METALLIC SPEC-PLATE

SIMPLY CUT ON DOTTED
LINE, PEEL OFF BACKING,
AND RUB ON TO ROCKET!

