
Centuri
STRIKE FORCE
TACTICAL MISSILE™
RUSSIAN
SAM-3
• Semi-Scale
• Balsa nose cone
• All fins are pre-cut balsa
• Bright "camouflage" chute
• Realistic decals and detail strips
• Up to 1000 foot altitude with one engine
MODIFIED FROM RUSSIA'S SURFACE LAUNCHED MISSILE
Includes photos and tech data!
1 MODEL KIT
Paint and Glue not included
1 MODÈLE RÉDUIT
Peinture et Colle non comprises
RECOMMENDED ENGINES (Not included)
½A6-2 A8-3
B4-6 B6-6 C6-7
SPECIFICATIONS
Max. Diam. - - - 1.04" (2.6cm)
Net Wgt. - - - - - 1.2oz (34g)
ASSEMBLED LENGTH 13.5" (34.3cm)
RECOMMENDED FOR AGES 10 THRU ADULT
Centuri FLYING MODEL ROCKET KIT
#5332
Made in U.S.A. Centuri Engineering Co., Inc., Phoenix, AZ 85001

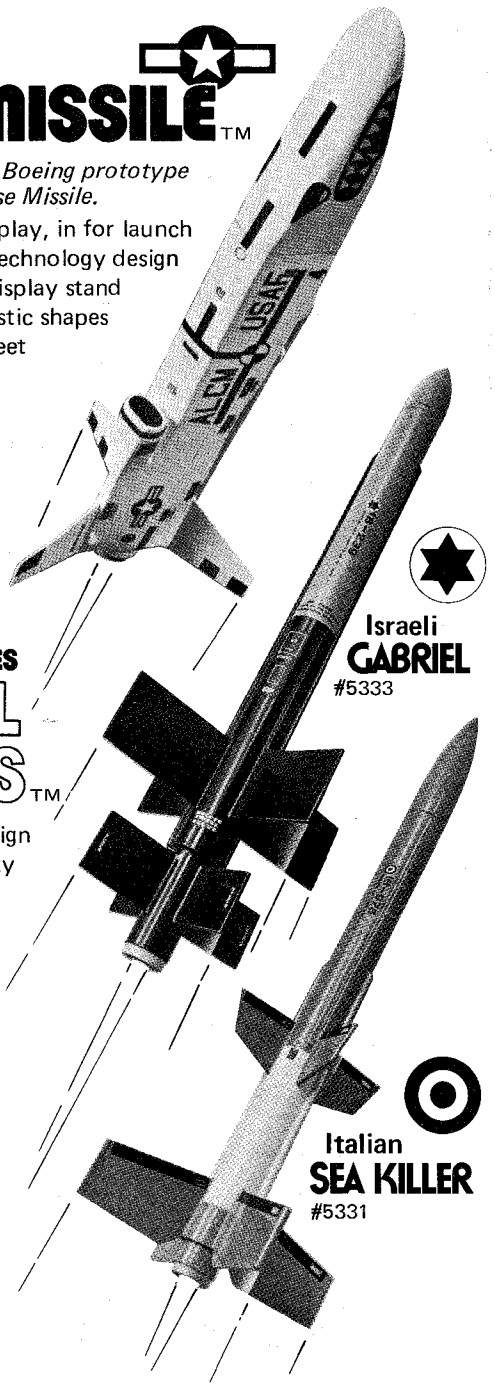
STRIKE FORCE™

Dramatically styled flying model rockets of military missiles from around the world.

BOEING A.L.C.M.
CRUISE MISSILE™

Scaled from the colorful Boeing prototype of the Air launched Cruise Missile.

- Wings fold out for display, in for launch
- Advanced aerospace technology design
- Pre-colored realistic display stand
- 3 types of formed plastic shapes
- Huge 4-color decal sheet
- Official Boeing specs
- Parachute recovery



INTERNATIONAL SERIES
TACTICAL MISSILES™

- Camouflage chute design
- Single engine reliability
- Multistage appearance
- Flights over 1000 feet
- 14" average length
- Balsa nose cones
- Body detailing
- Military decals
- Pre-cut fins
- Tech data

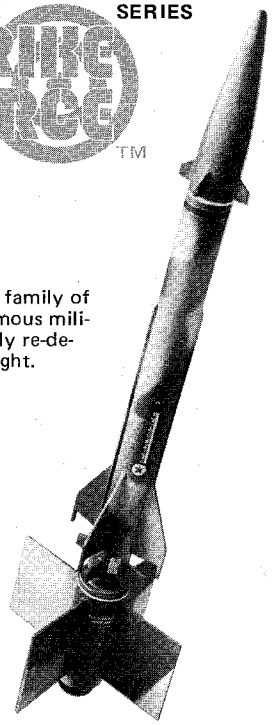
Israeli
GABRIEL
#5333

Italian
SEA KILLER
#5331

Centuri

FROM THE STRIKE FORCE™ SERIES

#5332
RUSSIAN
Sam-3



The "Strike Force" Tactical Missiles are a family of scale-like model rockets designed after famous military missiles. Each missile has been slightly re-designed for safe and stable model rocket flight.

Real Tactical Missiles are designed for flight at much higher speeds than model rockets fly at. The fin area and placement used on the real missiles are designed to give high performance. Model rockets are much lighter and operate at much lower speeds, so minor modifications have to be made to the fins.

While this kit is not a scale model of the real Tactical Missile, it is designed to look similar to the missile and still fly in a stable manner to many hundreds of feet. The "Strike Force" series of military missiles is the first complete line of weapons in model rocketry. Collect the whole series!

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.

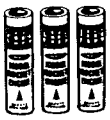
CENTURI Engineering Co., Inc., Phoenix, AZ 85001
Printed in U.S.A. (6/78) 81607

HOW IT WORKS

Your Tactical Missile model rocket is designed to fly in the same manner as other model rocket kits. The electrically ignited engine provides the power to boost the rocket to peak altitude. The rocket is guided off the launcher by a launch rod. At peak altitude the engine's ejection charge is activated to eject the parachute. The Tactical Missile returns to earth by parachute, ready for another flight.

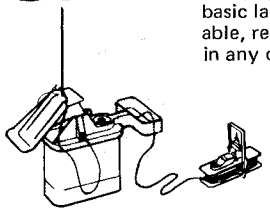
WHAT IT TAKES TO FLY

You will need engines, igniters, an electrical launch system and parachute wadding to fly your rocket. These supplies are NOT included in individual rocket kits, but are available separately and ARE included in every Centuri Starter Set or Rocket Outfit.



We recommend using Centuri engines; each package includes the famous "Sure-Shot" igniters, acclaimed as the world's most reliable model rocket igniter.

The popular Centuri "Powr-Pad" is an ideal basic launch system; compact, highly portable, reliable, and offering features not found in any other launch system.



Always sue standard remote-control electrical ignition and follow the engine recommendations. Be sure to comply with any laws that may apply in your area, for the good of Model Rocketry and your own enjoyment.

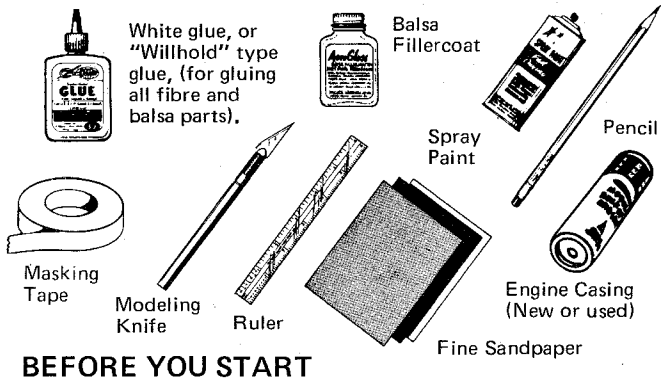
RIGHT MATERIALS FOR THE JOB

Different model rocket kits are made out of a variety of materials, depending on the needs of each kit. The chart below explains why this particular kit is designed using certain materials.

PART	REQUIREMENTS	MATERIAL
Nose Cone Fins	Light Weight Strength	Balsa
Body	Strength Safe	Paper

TOOLS YOU WILL NEED

In addition to the parts supplied, you will need the following tools to assemble and finish this kit (DO NOT use model airplane glue for building model rockets).



BEFORE YOU START

In case you are new to model rocketry, here are some general tips to get you off to a good start.

- Choose a practical assembly area: well lighted, big enough to work in, and out of the way of relatives or pets who might accidentally mess up your work.
- Cover your worktable with plywood or heavy cardboard to protect the table from glue, paint, cuts, etc.
- Remove the entire contents of your kit package carefully to avoid losing or damaging small parts. Lay them out neatly and identify each by referring to the "exploded view" drawing on this instruction.
- NOTE: Sometimes certain parts are packed INSIDE of other parts, such as tape discs inside parachutes, decals or couplers inside body tubes, etc.

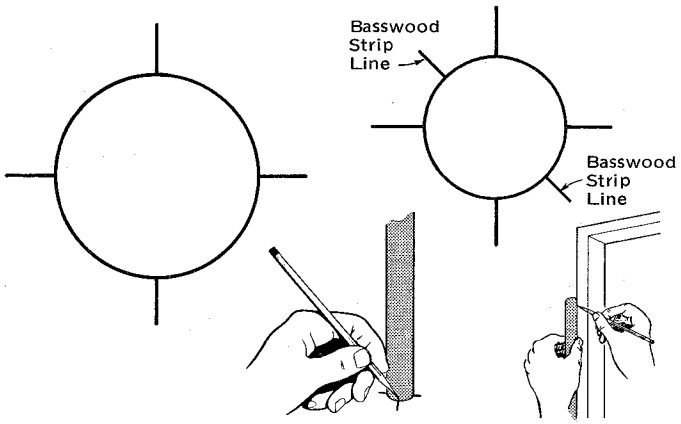
ASSEMBLY INSTRUCTIONS

Place the "Exploded View" plan sheet where you can refer to it while following these assembly instructions. Look it over to get familiar with all the parts.

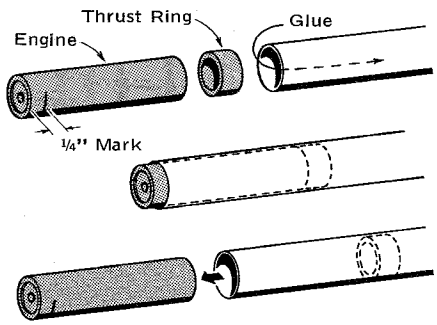
You MUST follow these instructions for satisfactory flights. The shape and placement of the model's parts has been carefully engineered for safe flights. DO NOT try to change the design, "customize" it, or leave off any parts!

1 To draw lines for the fin locations, stand the upper body tube on the fin guide below and mark the fin positions with a pencil. Repeat for the larger lower body tube.

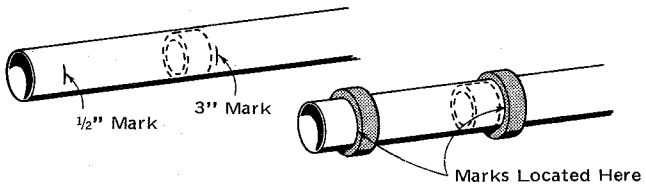
Find a convenient groove or channel, such as a door jamb or open drawer. Extend the marks you made the full length of the body tube.



2 Locate the thrust ring. Mark an engine ¼" from one end. Run a generous bead of glue around the inside of one end of the upper body tube. Place the thrust ring in the body tube and push it forward using an engine until the mark on the engine and the end of the body tube are even. Remove the engine immediately to prevent it from being glued in place.

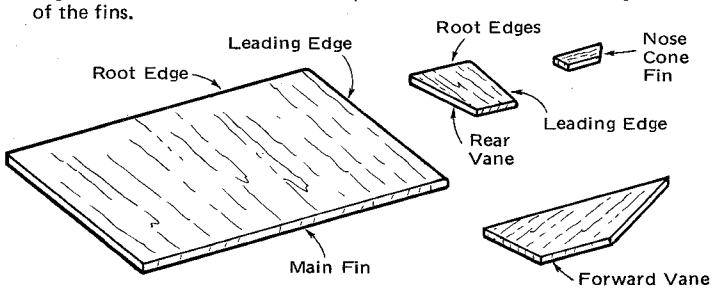


3 Mark the upper body tube ½" and 3" from the end with the thrust ring. Locate the two centering rings. Glue the centering rings in place so the rear edges of each ring are in line with the marks you just made.

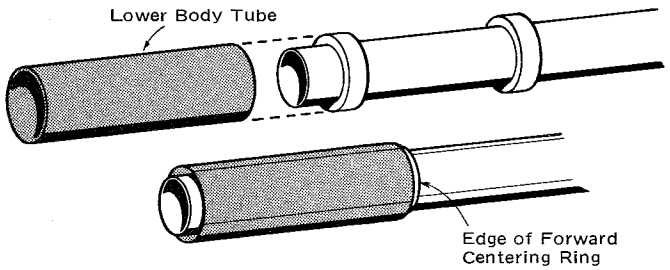


4 Carefully remove all fins from the pre-cut balsa sheet. Use a modeling knife, if necessary, to help remove the fins from the balsa sheet.

5 Square up the fin edges by running them over a piece of fine sandpaper. Use the sandpaper to round the leading edges of all pieces, except for the forward vanes and nose cone fins. Their leading edges will be rounded in a later step. Do not round the root edges of the fins.

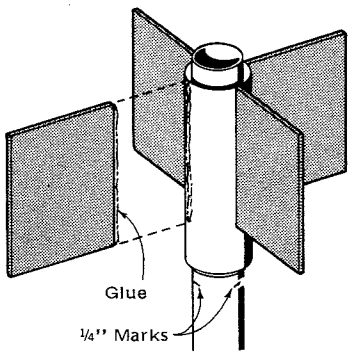


6 Smear glue on the outer edges of both centering rings and slide the lower body tube into place, making sure it is positioned so the lower edge of the tube is just slightly behind the edge of the forward centering ring. Make sure the fin lines on each body tube are lined up. Allow to dry thoroughly.

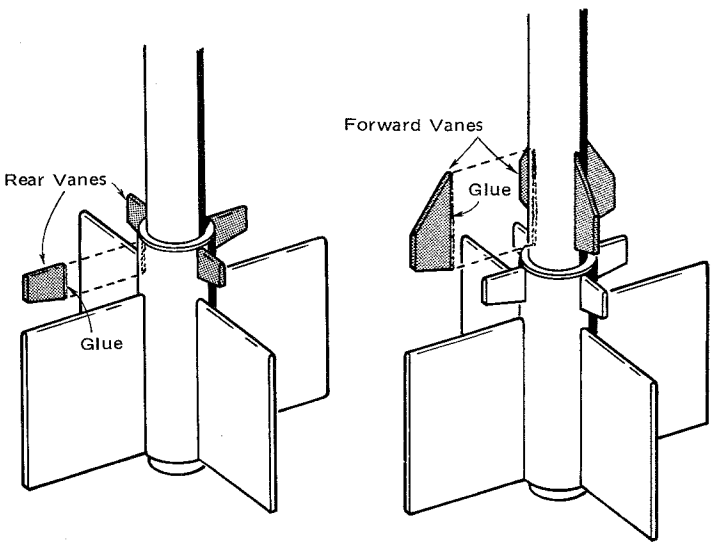


7 Assemble the parachute by following the instructions printed on it.

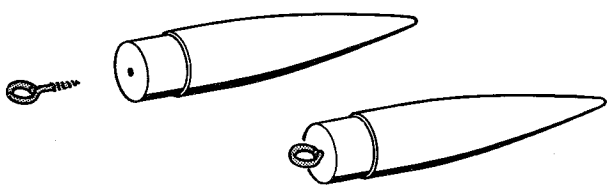
8 When the tubes are completely dry, mark the upper body tube ¼" from the front end of the lower body tube along the fin location lines. Then apply a small bead of glue to the root edge of one main fin and glue it to the lower body tube along one fin location line so that the lower edge of the fin is even with the end of the lower body tube. Remove the main fin, allow the glue to "set" for a few seconds, then apply another small bead of glue to the root edge of the fin and replace the fin. Hold in place while the glue sets, making sure the fin is properly aligned. Repeat for the remaining three main fins.



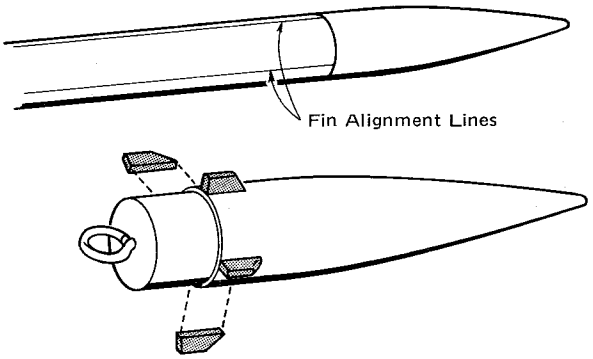
9 Use the same procedure described in step 8 to glue on the forward and rear vanes. The rear vanes are glued along the main-fin location lines so the leading edge is even with the forward edge of the lower body tube. The forward vanes are glued to the upper body tube so that their rear edges are even with the mark made in step 8.



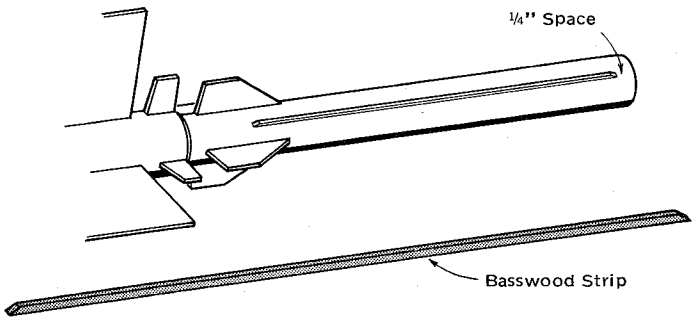
10 Install the screw eye in the nose cone by first turning it into the center of the nose cone base. Remove the screw eye and place a drop of glue into the hole you just made. Insert the screw eye back into the nose cone and allow to dry.



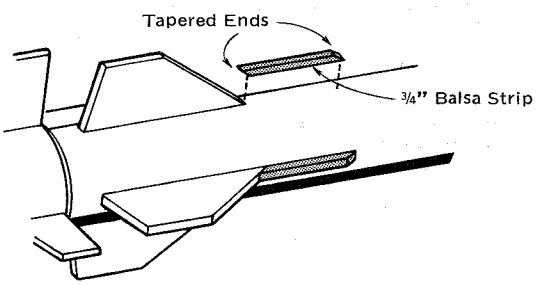
11 When the glue on the fins has dried, stand the rocket in an upright position and temporarily insert the nose cone. Mark the nose cone where the four fin alignment lines come in contact with the cone. Remove the nose cone and glue one of the four remaining balsa fins on each mark so that the rear edge of each fin is even with the rear of the nose cone. Do not glue the fins to the shoulder of the nose cone. After the glue has dried, round leading edge of each nose cone fin.



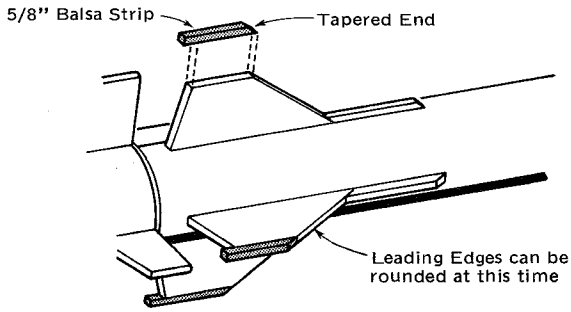
12 Taper the ends of two of the basswood strips as shown and glue them to the upper body tube on opposite sides of the tube, centered between two fins. The forward end of each strip should be ¼" behind the front end of the upper body tube.



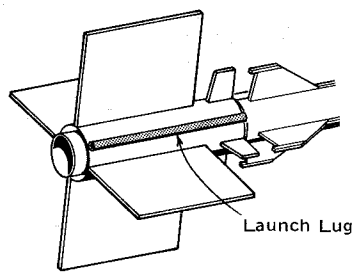
13 From the remaining bass strip, cut four 5/8 inch pieces and four 3/4 inch pieces. The 3/4" pieces are glued on to the upper body tube in front of the forward vanes. Taper the front and back edges as shown to fit in front of the vanes and glue the four strips in place.



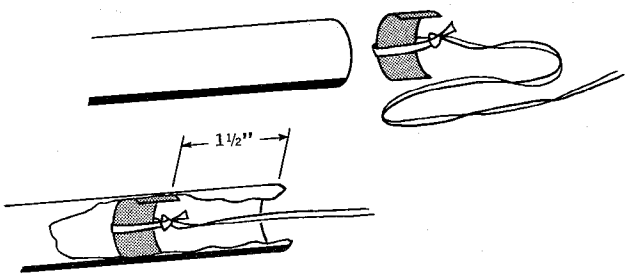
14 The 5/8 inch strips are glued to the tips of the forward vanes, with the excess amount of strip protruding behind the vanes. First taper one end of each strip as shown, and then glue the strips in place, making sure the tapered end is even with the leading edge of the forward vane.



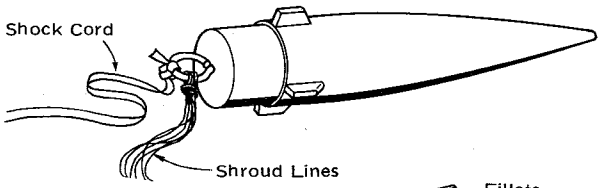
15 Glue the launch lug to the lower body tube making sure it is aligned straight along the body tube and centered between two fins. Choose one side that does not have one of the 6" long basswood strips on it.



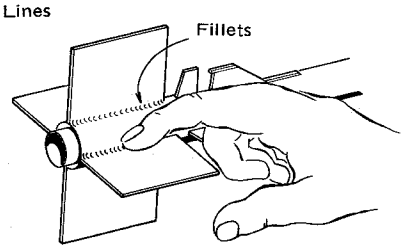
16 Tie one end of the shock cord around the heavy paper fastener. Bend it neatly into a half circle and apply glue to the outside surface. Insert this assembly into the front end of the upper body tube, making sure the fastener lies flat against the inside wall of the tube and is at least 1½" inside the body tube.



17 Tie the free end of the shock cord to the screw eye in the nose cone base. Attach the parachute to the screw eye by running the loops of shroud line through the screw eye and passing the parachute through the loops and then pulling the shroud lines tight.



18 After all the glue has dried completely, run another bead of glue along both sides of each fin and smooth it into a fillet. Using this procedure, fillet each fin and vane joint. Allow to dry.



19 Paint all the wood surfaces with balsa fillercoat or sanding sealer and allow to dry. Sand lightly with fine sandpaper. Paint and sand again, repeating the process until all the grain is filled.

1st coat of fillercoat
2nd coat of fillercoat
After sanding
3rd coat of fillercoat
After sanding

20 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, then a finish coat. Let each dry before applying the next. Follow the diagram below for proper paint scheme. For best results, spray first with an enamel primer. (You can paint your model in either of two ways: simple or challenging. See the table below and the package for color scheme.)

Simple: Silver

Challenging: Camouflage – using Pactra flat military colors.
2001 Desert Yellow
2002 Light Sand
SM13 Camouflage Gray

21 When all paint has completely dried, apply the decals according to the instructions printed on the decal backing. See package photo for most decal placements. We have added extra decals which can be added to your model at your discretion.

FLYING INSTRUCTIONS

ENGINES

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

Your Tactical Missile can be launched with the following engines:

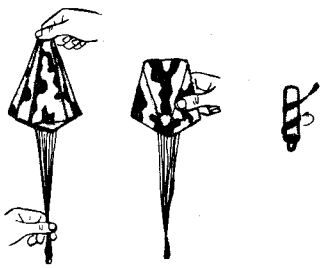
ENGINE	APPROXIMATE ALTITUDE	PURPOSE
½A6-2 A8-5	100–300 feet	LOW ALTITUDE–for first test flight and small fields.
B4-6 B6-6	300–700 feet	MEDIUM ALTITUDES–for general flying and medium sized fields.
C6-7	700–1000 feet	HIGH ALTITUDES–for extremely high altitudes and large launch fields.

FLIGHT PREPPING

Inspect entire recovery system for good condition before each flight. If the recovery system is tangled from the last flight, cut it apart to untangle it.

Insert flameproof chute wadding to protect your parachute from being melted by the engine's ejection charge. We recommend using 3 sheets of Centuri crepe wadding (#5846/SPW-19).

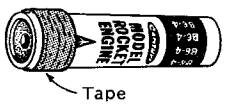
Fold parachutes as shown and tuck neatly into rocket . . . trying to avoid tangles. Chutes should be packed just before flight to avoid them possibly sticking together.



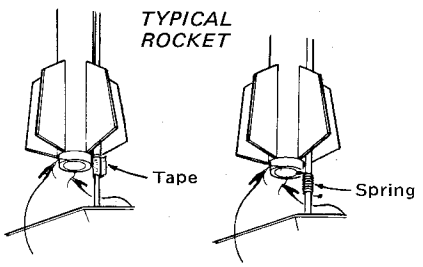
Tuck in shock cord and insert nose cone. The cone should fit snugly, yet be loose enough to eject.

Install igniter into engine, following instructions enclosed with engines.

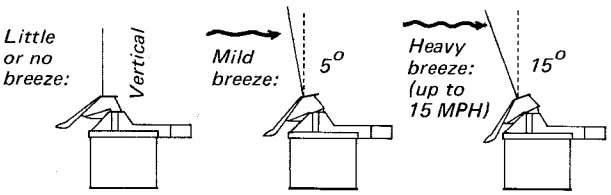
Insert engine into its mount. Wrap masking tape around one end for a tight, secure fit.



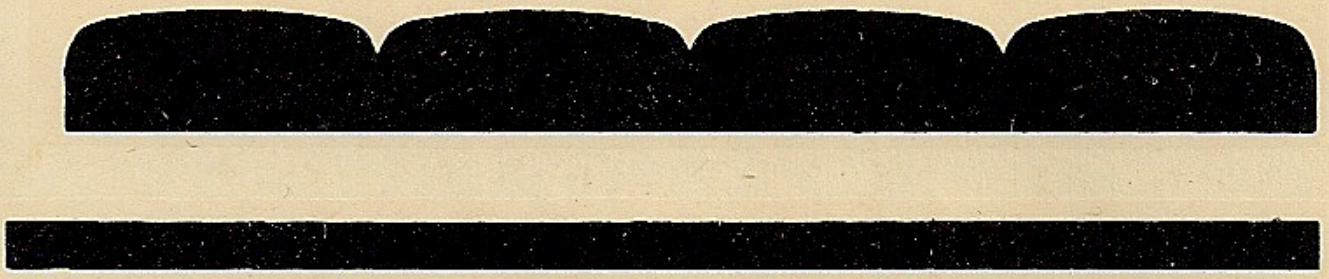
Mount the rocket on launcher and prepare for ignition. The rocket must be raised slightly off the launcher's deflector to avoid a short-circuit which might prevent ignition. If your launcher has a "positioning spring" use it as shown. Otherwise just wrap a little tape around the launch rod to support the rocket and the launch lug.



If your launcher has a rod-tilting feature, use it only for launching in breezes . . . normally model rockets are launched straight up. For reliable, impressive flights, never tilt the rod more than 15 degrees when flying your Fighter Kit . . . do not tilt the rod to its maximum angle.



Avoid eye injury by capping the exposed tip of the launch rod when not actually launching. Follow the instructions and the Safety Code, and have many happy hours with model rocketry.

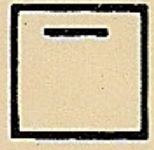


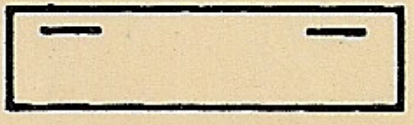
19-2С5Т

ТАКТИЧЕСКАЯ РАКЕТА

19-2С5Т

ТАКТИЧЕСКАЯ РАКЕТА





НОМЕР СЕРЫЕ

ТАБЛИЦА СТРЕЛЬБЫ

ДАТА ЗАРЯДИ

ОПАСНО ОПАСНО ОПАСНО ОПАСНО

Centuri

Decal #36846

Parts List

1 ST-7100
.759" O.D. x 10 "

1 ST-1030
1.04" O.D. x 3"

1 BC-734D