

SATELLITE KILLER™

You may never have seen a spacecraft like Centuri's SATELLITE KILLER . . . but you will soon see them in the real world! In the near future, such craft may seek out and destroy enemy spy satellites.



Over one foot in diameter, it climbs safely in

horizontal position, pops its rear-ejection system, and recovers gracefully by parachute. Features all pre-cut fibro parts, huge sheet of 3-color chrome stick-on decals, and "laser-antenna" removable for flight.

#5345
Skill Level 3

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 15 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.



- SAFE "GYRO" RECOVERY
Engine returns by streamer
- FAST & EASY ASSEMBLY
Pre-cut fins & foil decals
- HIGH-HIGH FLIGHTS
Uses lowest priced engine type (1/8A)

WAR SPACE™

Inspired by top secret space weapons now rumored to be under development.

RED-EYE

ENEMY SPY SATELLITE



SKILL LEVEL

1	2	3	4	5
Beginner	Intermediate	Advanced		

RECOMMENDED FOR AGES 10 THRU ADULT
Adult supervision suggested for those under 12 years of age when flying model rockets.

SPECIFICATIONS:

Body Length 4.0" (10.2cm)
Full Length 8.75" (22.2cm)
Body Diam. 0.76" (1.9cm)
Net Weight 0.3oz (8.5g)

RECOMMENDED ENGINE:
(Not included)

1/8A-2

ASSEMBLED
LENGTH 8.75" (22.2cm)
(Including antenna fins)

Centuri FLYING #5345
MODEL ROCKET KIT

HOW IT WORKS

The Red-Eye is designed to fly straight up under rocket power. . . at peak of flight the engine ejection charge ignites, causing the engine to push itself out the back of the rocket. The lightweight Red-Eye is now free to fall gently back to earth, spinning like a copter's blades, while the empty engine casing returns by streamer recovery.

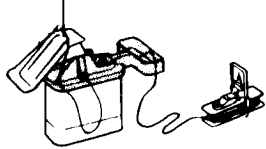
WHAT IT TAKES TO FLY

You will need engines, igniters, and an electrical launch system 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 Enerjet engines; each package includes the famous "Sure-Shot II" 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 use 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.

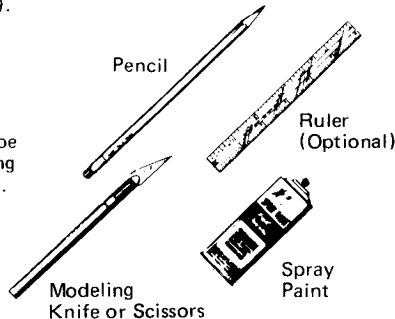
PART	REQUIREMENTS	MATERIAL
Fins	Light Weight	Wood & Fibre Board
Nose Cone	Resist Damage No Finishing	Plastic

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).



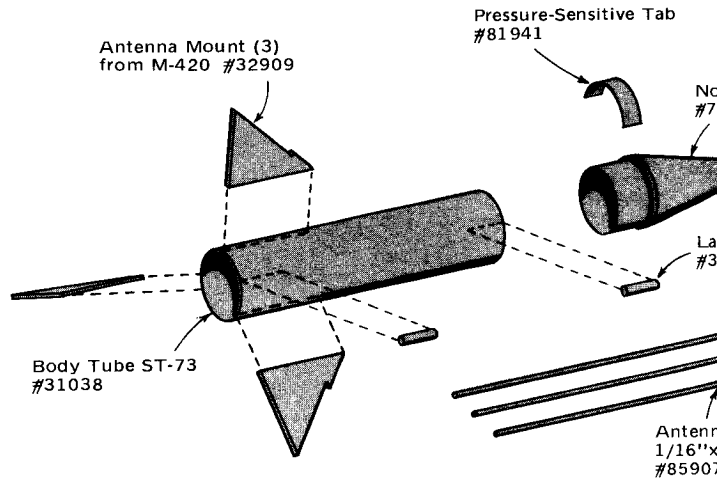
White glue, or "Willhold" type glue, (for gluing all fibre parts).



BEFORE YOU START

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

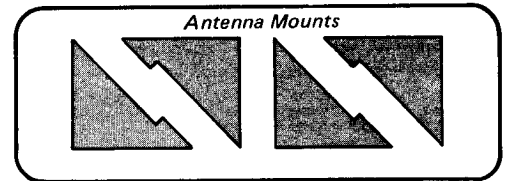
- Choose a practical assembly area: well lighted, big enough to work in, and out of the way of relatives or pets who might accidentally mess up your work.
- Cover your worktable with plywood or heavy cardboard to protect the table from glue, paint, cuts, etc.
- Remove the entire contents of your kit 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.



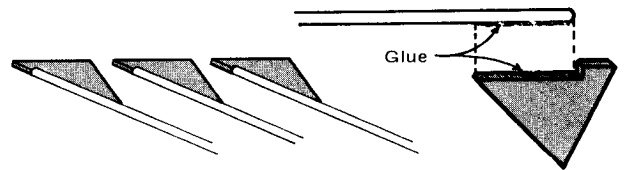
The Red-Eye is a simple beginner kit with a unique "gyro" recovery system. This gyro spinning is caused by a combination of factors. The fins are extremely long and thin, the rocket is very lightweight, and the airstream easily deflects the recovering rocket to spin in one direction or another. This gyro principle will not work on larger model rockets. Watch your Red-Eye carefully when you launch it on its first test flight. If it does not seem to spin much when recovering, try adding a tiny tab to the tip of one antenna. Make the tab from scrap "decal" material.

ASSEMBLY INSTRUCTIONS

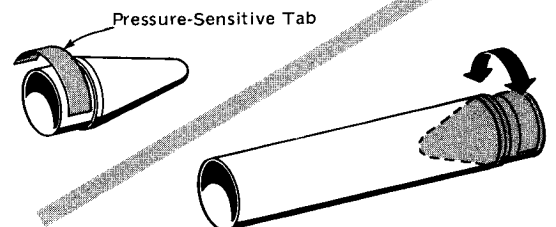
- 1 Remove the pre-cut antenna mounts from their sheet carefully, to avoid tearing the fibre board. Only three of the mounts will be used.



- 2 Apply a small amount of glue to a mount and antenna as shown, and join the parts neatly. Make all 3 "fins" this way and allow them to dry laying on a flat surface.

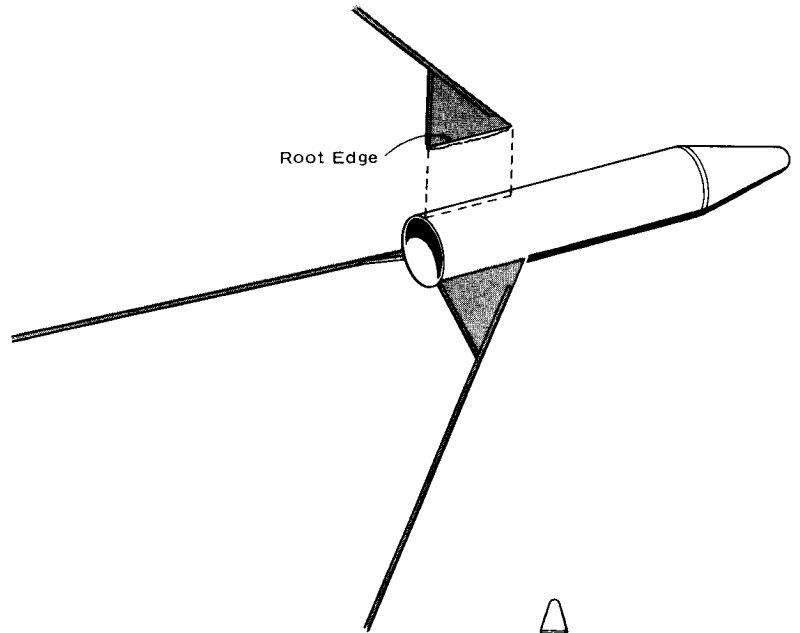


- 3 Peel the backing from the small pressure-sensitive tab and rub the tab firmly onto the nose cone base. Use the front of the nose cone to smooth the inside edge of the body tube.

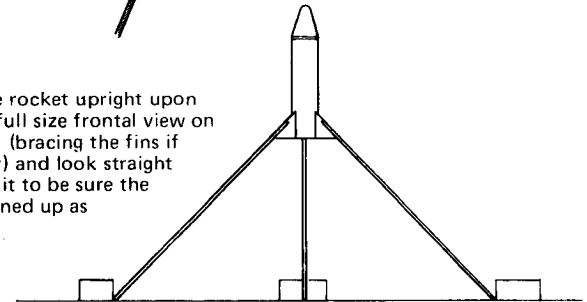


Exploded View

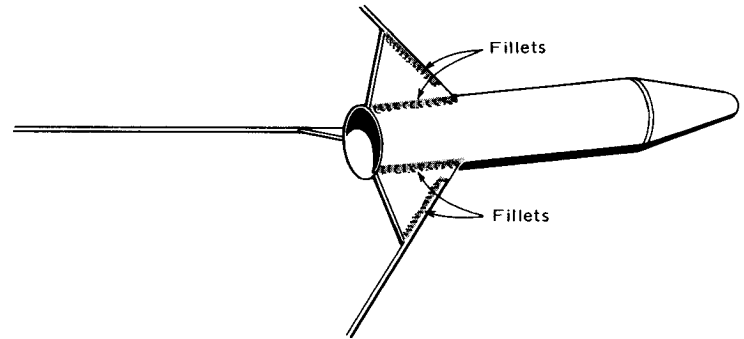
7 Use this pre-gluing technique to put your fins on: one at a time, apply glue to the root edges of the fins, press in place on the tube. Remove the fin and repeat with remaining fins. Apply fresh glue to each fin and reposition on the tube.



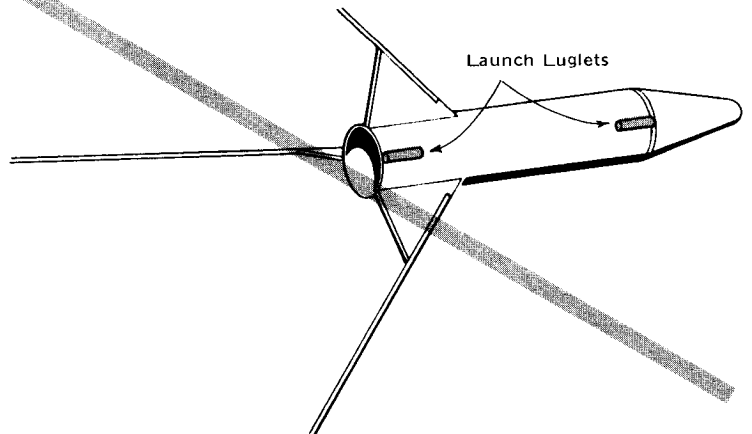
8 Stand the rocket upright upon the gray full size frontal view on this sheet (bracing the fins if necessary) and look straight down on it to be sure the fins are lined up as shown.



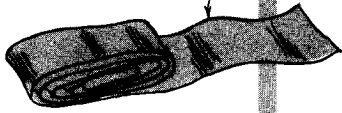
9 When rocket is dry enough to handle, reinforce all glue joints by running a bead of glue along the joint and smoothing into neat "fillets" with your finger.



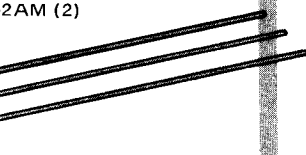
10 Glue the two launch luglets to the body along their drawn line. Each luglet should be flush with each end of tube.



Streamer Material 1"x90"
SM-1C #38273



Shock Cord ESC-12
#85781



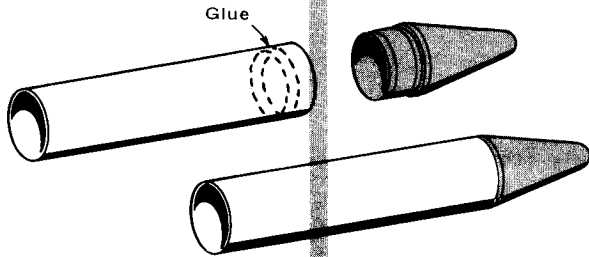
Cone PNC-71
371

Launch Luglets LL-2AM (2)
176

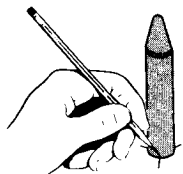
Dowels
1/8" M-419 (3)

(Not Shown)
Stick-On Decals
#36866

4 Apply a small amount of glue inside the tube and around the nose cone base. Insert cone with a gentle, but firm, turning motion.



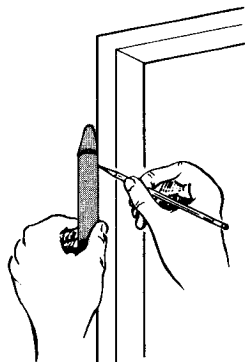
5 To draw guide lines for neatly gluing on fins: stand body tube on its fin guide and mark each position on the tube.



Launch Lug

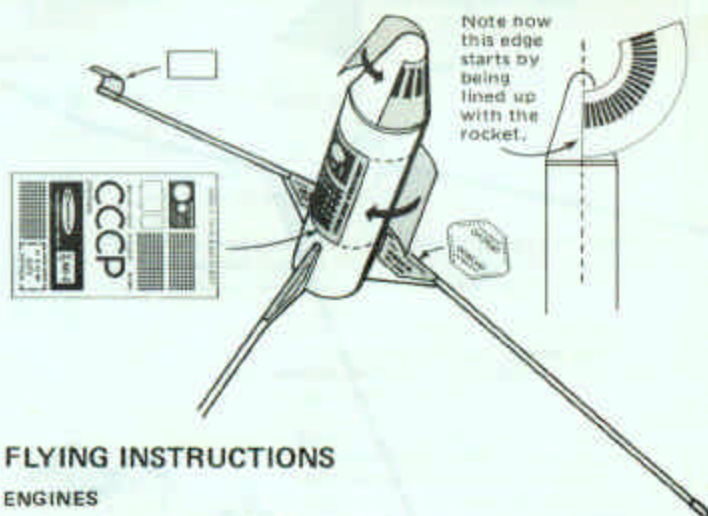
ANTENNA FIN GUIDE
FRONTAL VIEW

6 Find a convenient groove or channel, such as a door jamb or partially open drawer. Extend the marks into straight guide lines the length of the tube.



11 After all glue is dry, paint entire model red. Spray enamel works best. Do not use dope on the plastic nose cone because it will dissolve plastic. Apply light coats, allow each to dry, then one final finish coat.

12 After the paint is dry, apply the pressure sensitive decals. Begin by cutting out the decals from the sheet using scissors (or a modeling knife and ruler). Remove the backing paper from each piece and apply as shown. Rub each decal down firmly after you are sure it is positioned where you want it.



FLYING INSTRUCTIONS

ENGINES

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

RECOMMENDED ENGINE: 1/8A6-2

This engine will carry the small Red-Eye surprisingly high. More powerful engines should not be used because they will put it too high to be seen, and they do not have enough empty room for tucking in the streamer. Further, they may cause fins to snap off.

ENGINE RECOVERY

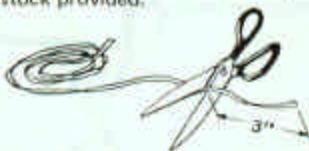
A simple streamer recovery system must be attached to the ejected engine casing for each flight. There is enough material for 4 complete recovery systems included in this kit. Each system should last 2-3 flights at least.

ASSEMBLE EACH SYSTEM LIKE THIS:

1 With scissors or a modeling knife, cut a 20" length of streamer from stock provided.



2 Cut a 3" piece of shock cord from stock provided.



3 Tie the shock cord to one end of streamer.



4 Tape the free end of the shock cord to the forward end of the engine (end opposite the engine nozzle).



Your engine recovery system is now complete and you can begin flight prepping.

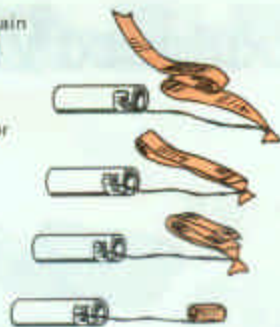
FLIGHT PREPPING

1 Insert a small wad of streamer into engine casing to act as flameproof wadding.



2 Begin folding streamer in half again and again until it is small enough to roll into a tight, neat size.

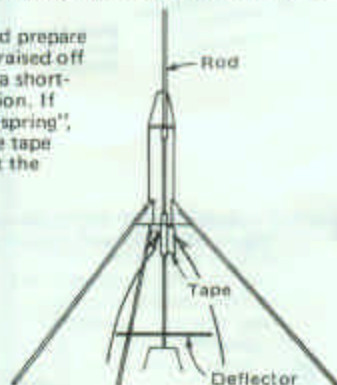
Insert the rolled streamer into the engine casing. Do this carefully to avoid ripping or or damaging the streamer.



3 Insert engine into your rocket. The engine must be able to pop out easily when the ejection charge ignites. If the engine falls out by its own weight it's too loose. If so, remove engine and build up its diameter by adding tape. Add only enough for a snug fit.

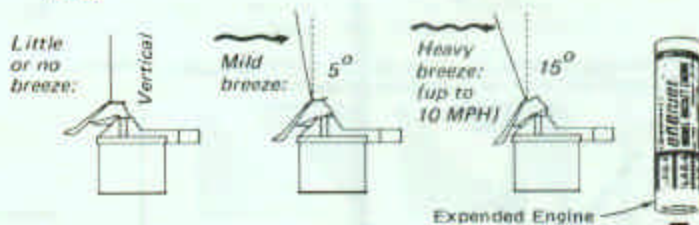
4 Install igniter in engine, following instructions enclosed with engines.

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



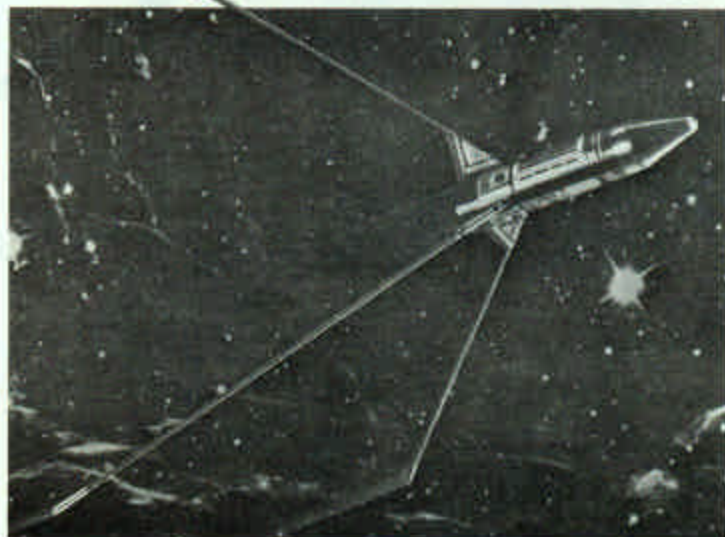
BE SURE YOUR IGNITER LEADS ARE NOT TANGLED WITH THE ANTENNA FINS!

6 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 rocket . . . do not tilt the rod to its maximum angle.



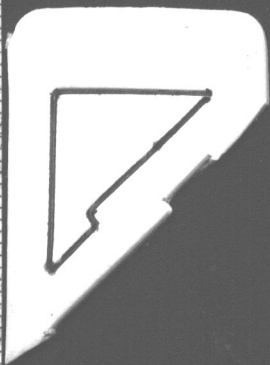
Avoid eye injury by capping the exposed tip of the launch rod when not actually launching. Follow the instructions and the Safety Code, and have many happy hours with model Rocketry.

CENTURI Engineering Co., Inc., Phoenix, AZ 85001
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