

## P.T.S. SHAMAN

The P.T.S. Shaman is a patrol transport ship of the American Alliance in the late 21st century.

This kit has pre-cut balsa wood fins, pre-shaped nose and features rear ejection parachute deployment. Sticker decals and plastic engine pods are included.

**SKILL:** Level 2

**LENGTH:** 16"

**DIAMETER:** 2.3"

**WEIGHT:** 9 ounces

**MMT:** 24mm

**RECOVERY:** 18" rip-stop nylon  
parachute

**RECOMMENDED MOTORS:**

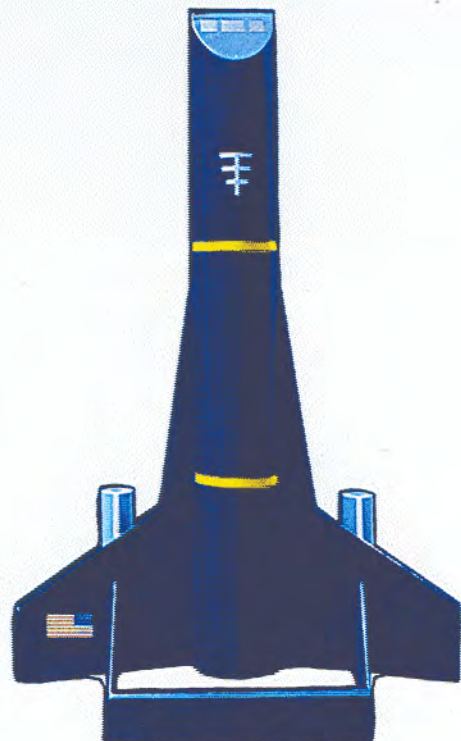
D12-5, E15-7

All kits require assembly. White glue, epoxy, finishing supplies, launch system, recovery wadding and rocket motors for launching are NOT included.

-Since FAT CAT ROCKETS, INC. cannot control the use of its products once sold, FAT CAT ROCKETS, INC. cannot be held responsible for any personal injury or property damage resulting from the use, handling or storage of this product and its components. The **BUYER ASSUMES ALL RISKS AND LIABILITIES** therefrom and accepts and uses FAT CAT ROCKETS, INC. products on these conditions.

-All our model rocket kits are **RECOMMENDED** for age 12 and up with adult supervision.

-Our rocket kits contain small components that could easily be swallowed by young children. Keep all components out of reach of all children under 10 years of age.



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# P.T.S. SHAWAN

## PARTS LIST:

- \* BODY TUBE (17 1/4" long)
- \* 24mm MOTOR TUBE (8 1/2" long)
- \* LAUNCH LUGS (2)
- \* BULKHEAD PLATE
- \* CENTERING RINGS (2)
- \* THRUST RING
- \* PRE-CUT FINS
- \* PLASTIC ENGINE PODS (2)
- \* SHOCK CORD MOUNT
- \* 3/8" SHOCK CORD (30" long)
- \* 18" PARACHUTE
- \* STICKER DECALS

## ITEMS YOU WILL NEED TO ASSEMBLE THIS KIT :

- \* PENCIL OR PEN
- \* HOBBY KNIFE
- \* YELLOW GLUE
- \* 5 MINUTE EPOXY
- \* PLASTIC C.A. GLUE
- \* SANDING PRIMER
- \* PAINT (your choice)
- \* RULER
- \* SANDPAPER (180 and 320 grit)

**RECOMMENDED MOTORS:**  
**ESTES- D12-5; E9-6 (calm days only)**  
**AEROTECH- E15-7; E30-7**

Use of recovery wadding is suggested to help protect the bulkhead plate.

### STEP 1

A. Using the wing pattern as reference, lay out and glue the wing components together. Mark the top and bottom of the wings with upright/pylon lines.  
 B. Glue the crossbar to the fin uprights. NOTE: The crossbar sits on top of the uprights.

### STEP 2

A. Using body tube guide, mark the body tube for wing placement. Make sure the chisel point of the nose is in line with the wing lines.  
 B. Sand and round the leading and trailing edges of the wings and fins as desired.

### STEP 3

A. Attach the wings to their lines on the body tube. Use the wing/tube guide for assistance.  
 B. When assemblies are dry, attach the crossbar assembly to the wings on the drawn lines. The back edge of the uprights are flush with the back of the wings.

### STEP 4

A. Using a C.A. plastic adhesive, attach the engine pods to the engine pylons. Make sure the pylons are on the pods straight.  
 B. Attach the finished pod assemblies onto the lines drawn under the wing. The front of the pylons are flush with the front of the wings.

### STEP 5

A. Attach the launch lugs under one wing at the wing/body tube joint. One at the front and back of the wing.  
 B. Fillet all joints for reinforcement.

### STEP 6

A. Refer to the diagram for the shock cord mount and motor mount assembly instructions.  
 B. Epoxy the bulkhead plate as far into the body tube as possible. Use a piece of dowel if necessary. Remember, there must be enough room to slide the motor mount assembly into the tube.

### STEP 7

A. When the bulkhead is dry, slide the motor mount assembly into the back of the rocket. DO NOT glue this assembly in, this is a rear ejection rocket.

### STEP 8

A. Prime and sand model as desired.  
 B. Finish and paint as desired.  
 C. Apply stickers as shown.

### STEP 9

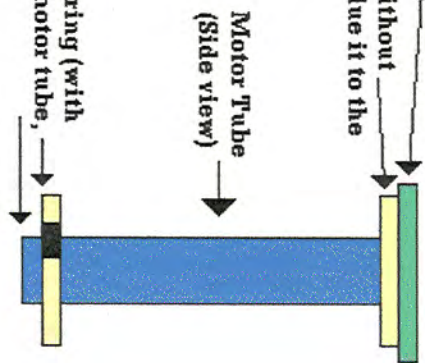
A. Attach one end of the shock cord to the yellow cord. Tie the other end of the shock cord around the motor tube.  
 B. Attach the parachute to the shock cord near the motor tube. Refer to the diagram for assistance.

### STEP 10

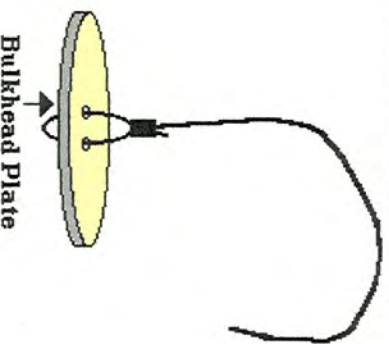
A. Refer to the diagram for assistance. When loading the chute, fold the shroud lines into the chute, and lay the chute loosely around the motor tube.

## Step 6 Part A

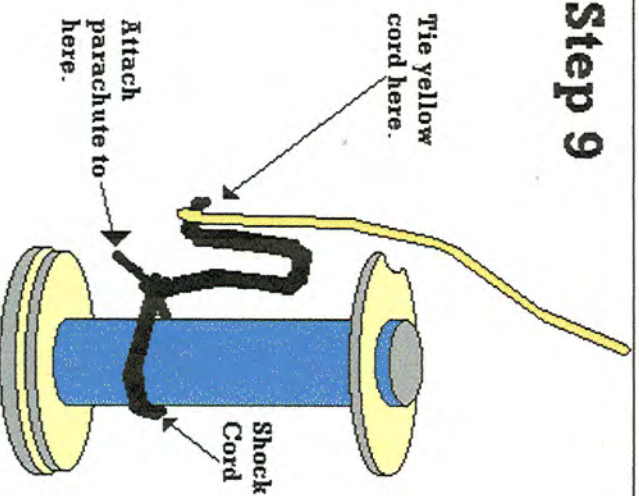
1. Glue the thrust plate to the end of the motor mount tube.
2. Slide the centering ring (without notch) down the tube and glue it to the thrust ring.
3. Glue the second centering ring (with notch) onto the end of the motor tube, 1/4" from the end.



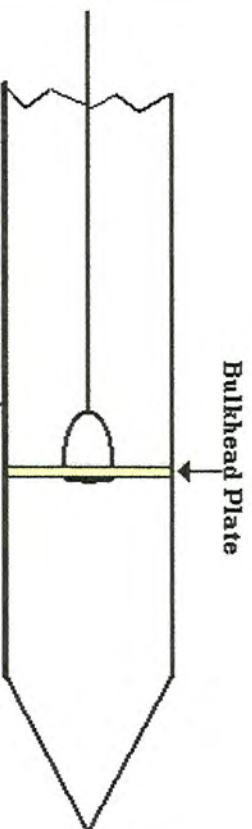
4. Tie one end of the yellow cord through the bulkhead plate as shown. Put a coat of epoxy on both sides of the bulkhead to help secure the cord in place.



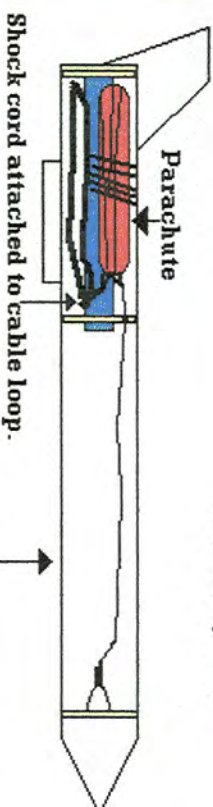
## Step 9



## Step 6 Part B



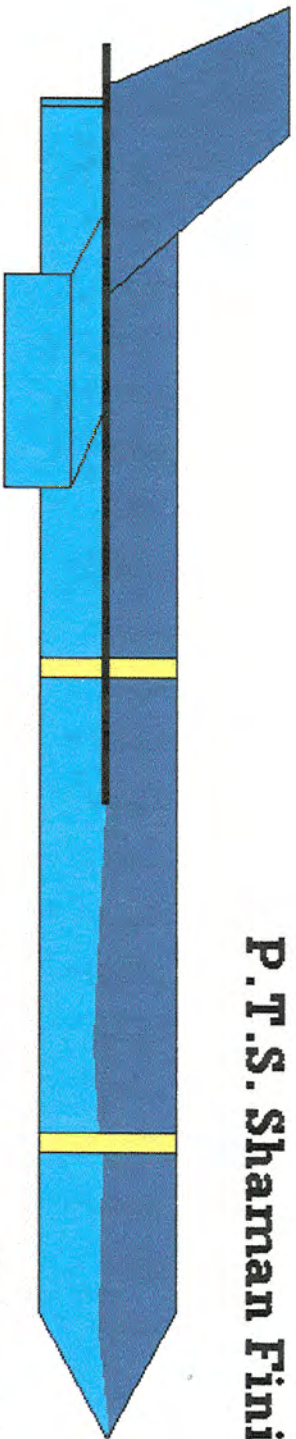
## Step 10



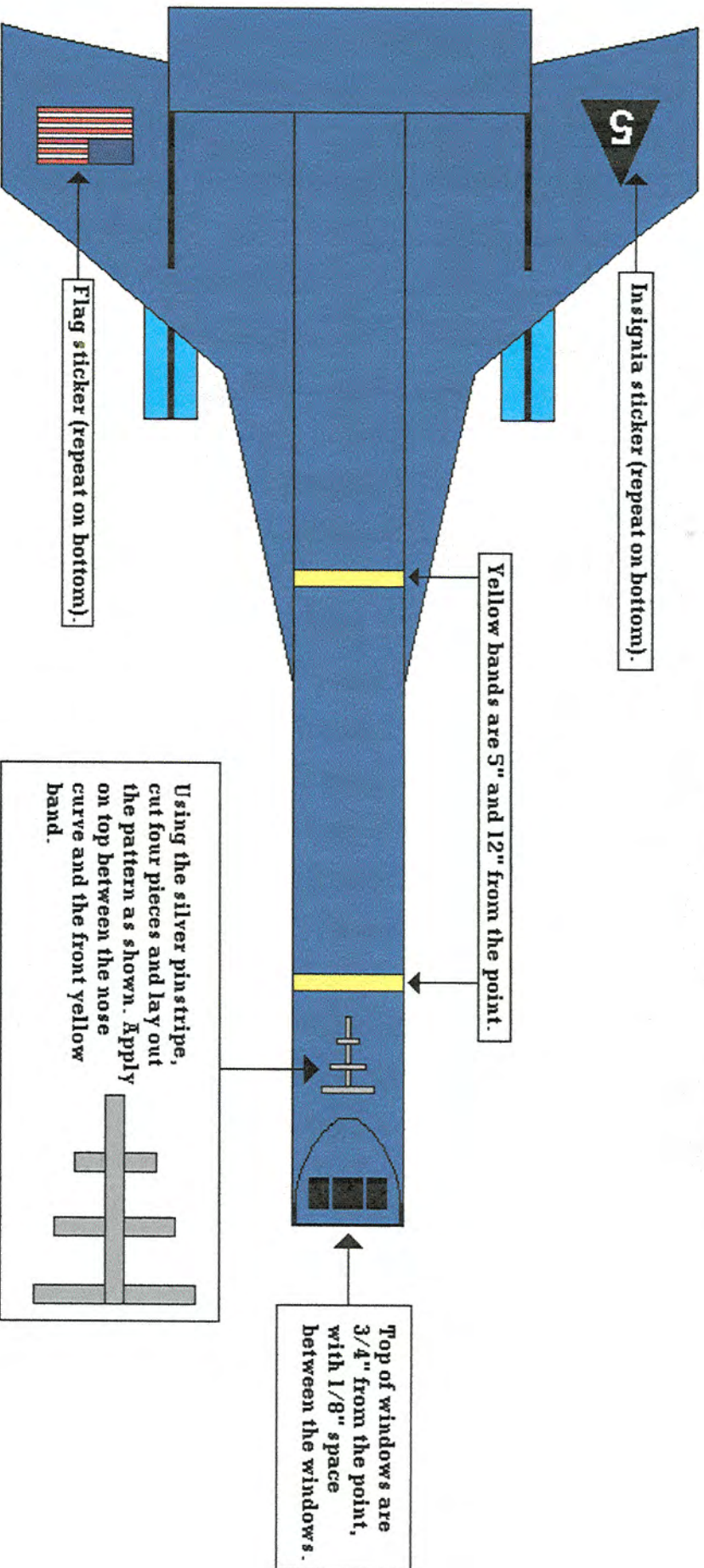
**NOTE:** Yellow cord is threaded through the notch in the front centering ring. Pack the excess cord, shock cord, and parachute around the motor tube

**Note:** Motor tube should slide out easily.

# P. T. S. Sharnan Finish Page



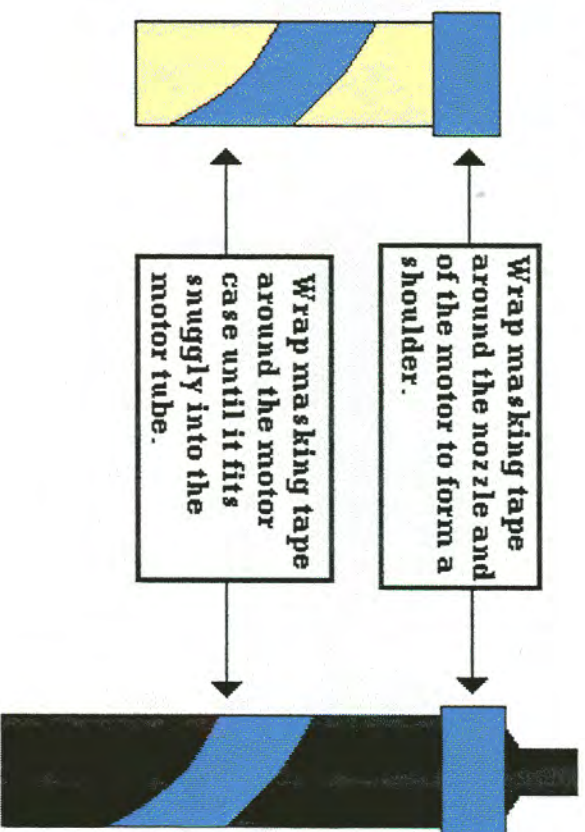
The page depicts the paint scheme that our prototype was campaigned in. Paint your P. T. S. Sharnan as you desire. Apply the stickers as shown.



# ATTENTION!

Be sure to follow NAR and TRA safety rules and codes when flying this model.

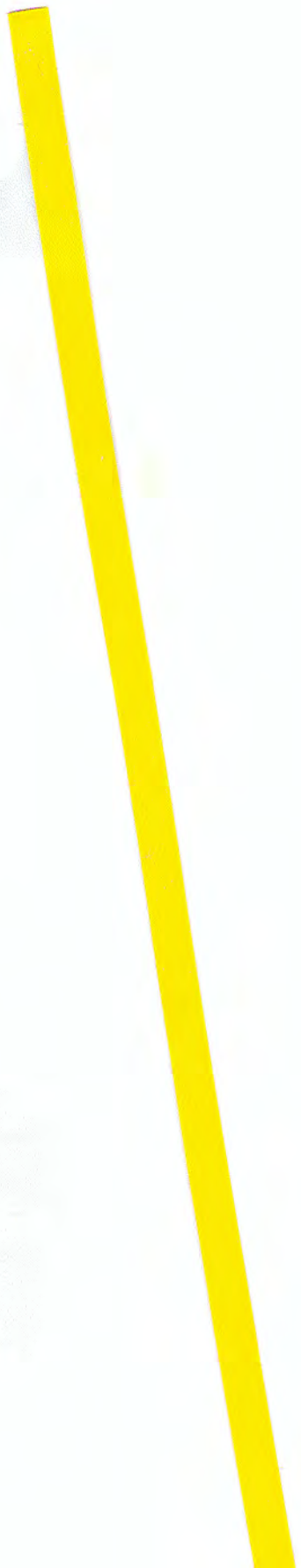
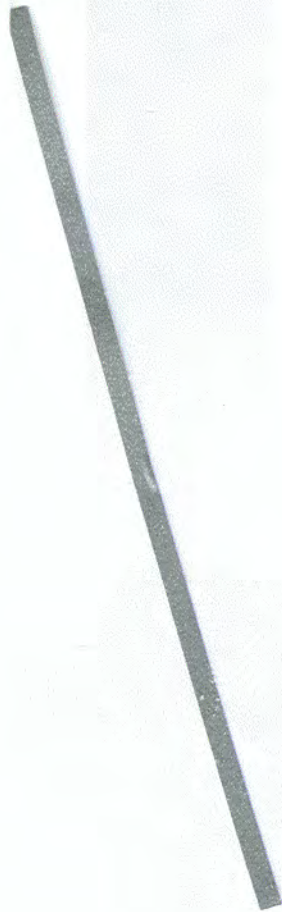
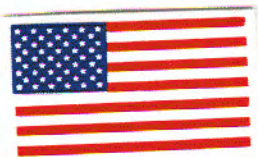
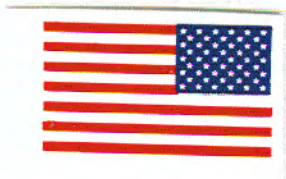
This model kit is designed for friction fit motor retention. Fat Cat Rockets leaves it up to the model builder to use whichever retention system they desire. Refer to the diagram for friction fitting info.



This model (if built to instructions standard) is properly weighted for flight.

Use at least a six foot rod for flying this model.

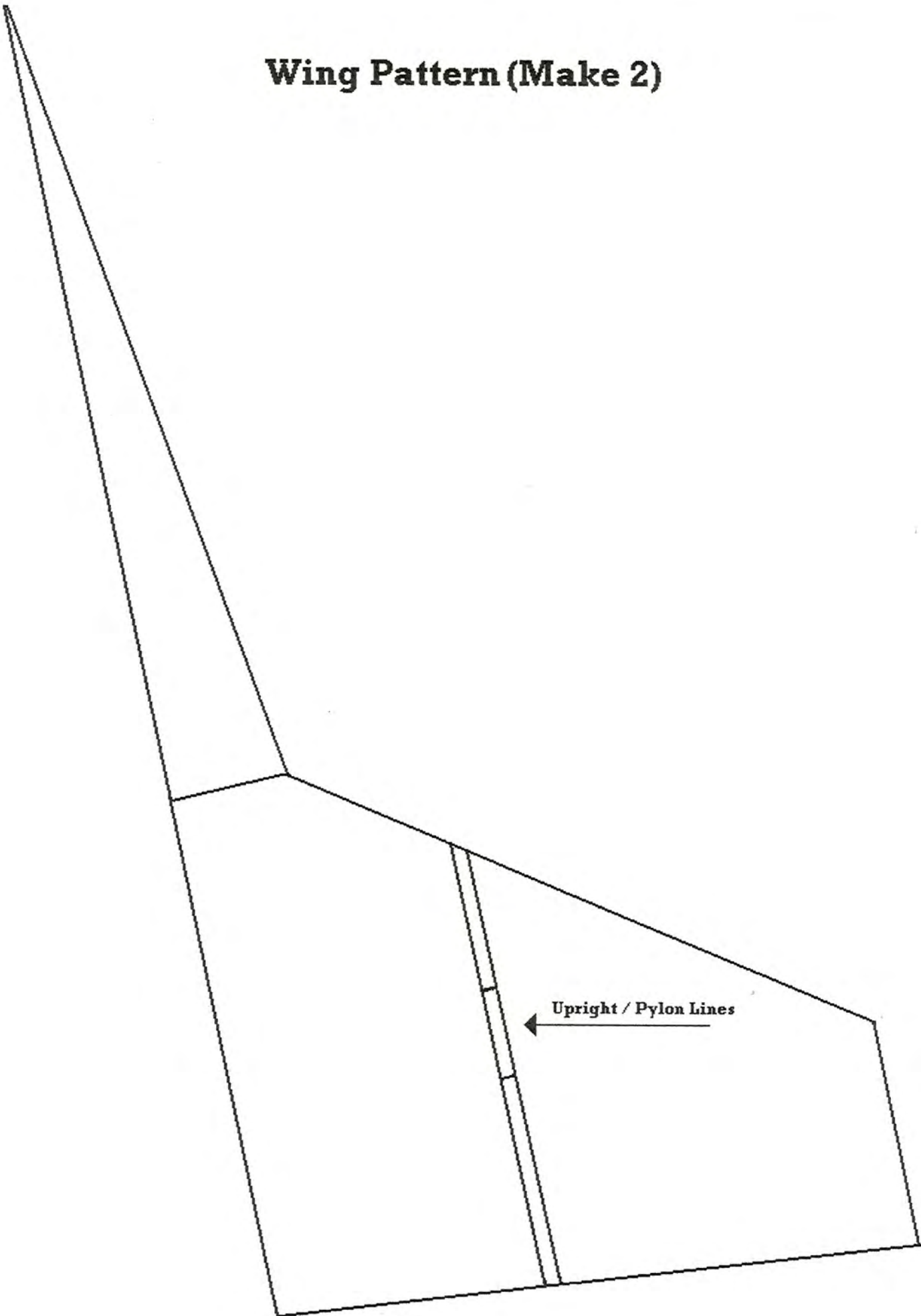
If you have any question, contact us at: 352-385-1994  
or : [info@fatcatrockets.com](mailto:info@fatcatrockets.com)



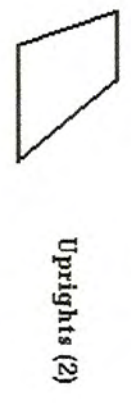
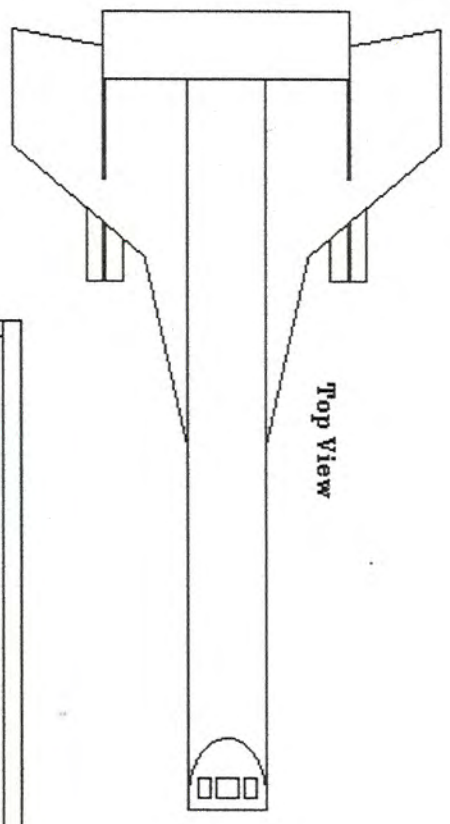
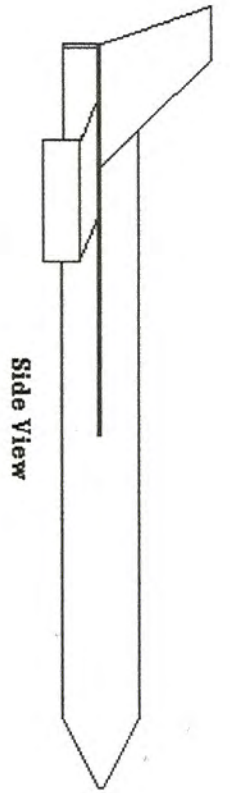


1/3 Balsa

# Wing Pattern (Make 2)







**Wing / Tube Guide  
Rear View**

