

If you move forward, backward or even sideways in SPACE-TIME you may happen on a cruiser class space ship similar to the STAR WARRIOR AX-1. Its linear design produces the minimum in frontal exposure. Just aft of midship is a pair of phaser tubes; to the rear of the tubes are the dorsal fins (top fins) and to the aft on the underside the ventral fins. The large three color decals can be used to decorate the model either as indicated or in an infinite variety of patterns.

Recommended engines are either C6-4 or C6-5. They are not included with the kit. To launch the rocket you must also purchase a model rocket launch pad and controller.

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PARTS LIST

Nose Cone	one	AVI-21-25B01	T25 Ogive, balsa
Front Compartment	one	AVI-11-25X15	T25 body tube, 6 inch
Body Segments	three	AVI-11-25X30	T25 body tube, 12 inch
Coupling Tubes	two	AVI-12-24x03	T24, green tube
Phaser Tubes	two	AVI-11-15x20	T15 body tube, 8 inch
Engine Compartment	one	AVI-12-19X07	T19 tube, brown 2.75"
Engine Block	one	AVI-99-EB01	Ring, blue
Engine Clip	one	AVI-0006-EC	Shaped metal strip
Centering Rings	two	AVI-99-MR2519	Rings, brown
Adapter	one	AVI-22-2525B	Balsa plug
Screw Eye	one	AVI-51-0801S	Metallic screw eye
Shock Cord	one	AVI-51-0602B	Fabric, elastic, 20 inch
Shock Cord Mount	one	AVI-51-SCM2	Card, three holes
Gauze Reinforcing	one	AVI-51-GRM	Small fabric rectangle
Parachute Assembly	two	AVI-51-0135	14" parachute kit
Launch Lug	one	AVI-99-0107S	Straw, brown
Balsa Phaser Tube Supports	two	AVI-0006BPTS	Balsa flats
Balsa Keel	one	AVI-0006K	Balsa flat
Balsa Dorsal Fin	two	AVI-0006DF	Balsa flats
Balsa Dorsal Fin Support	one	AVI-0006DFS	Balsa flat
Balsa Ventral Fin	two	AVI-0006VF	Balsa flats
Balsa Ventral Fin Supports	two	AVI-0006VFS	Balsa flats
Balsa Sticks	four	AVI-0006BS	3/32 square, 12 inch long
Decal Sheet	two	AVI-000DSA&B	Decal sheets

ADDITIONAL MATERIALS REQUIRED OR DESIREABLE FOR CONSTRUCTION

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|------------------------------------|-----------------------------------|
| 1. Cutting Board | 6. Light Grey Paint |
| 2. Hobby Knife | 7. Paint Brush |
| 3. Sand Paper, fine | 8. Glue, white or Wilhold variety |
| 4. Ruler | |
| 5. Dish of water to release decals | |
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Follow all instructions on the COUNTDOWN CARD when launching your model rocket. You must purchase engines , and launch system separately when planning to fly your model rocket.

PREPARATION OF PARTS

1. Before assembling the model first lay out all parts and familiarize your self with their identity.
2. Sand the exterior of all the body segments, the phaser tubes and also the balsa parts including the nose cone, the adapter, and the flat pieces that will make up the structure. This will facilitate construction in providing better glue bonds.
3. Cut four eight inch segments from the four balsa sticks that are provided. From the remaining four inch pieces set one aside. Take two four inch pieces and cut in half so that you have four two inch long pieces. The eight inch sections will be paired in line forward of each dorsal fin. The two inch sections will be paired on either side of the dorsal fin supports for added strength. One four inch section will be use out-board on the right phaser tube, and the remaining one will be used as a launch lug support.
4. Construct the motor(engine) compartment by cutting a 1/16" notch out of the inside of each of the centering rings. Lay the engine block along the engine compartment and mark where a 1/8" slit should be cut. Cut the slot.
5. Glue the engine block, blue ring, in securely in the end of the tube with the slit. Insert the forward end of the engine clip into the slit and apply glue to the slit. Slip the notched centering ring on the rear, allowing the engine compartment to project 1/2" behind the centering ring and glue it into position. Putting the other centering ring on the forward end until it comes in contact with the front of the engine clip, glue it in that position. Allow the assembly to dry.
6. Select one of the 12" T25 body segments and apply glue to the interior of one end about one inch deep into the tube. Make sure that the glue make a complete circle on the inside of the tube. Insert the engine compartment from step 5, thereby glueing it into position, with the rear centering ring surface projecting just beyond the rear face of the body segment. Allow to dry.
7. Apply glue to the open end interior on the tube opposite the end with the motor mount in position. Glue should coat from the lip rearward for a depth of 1/2 inch. Insert one of the green coupling tubes for half of its length.
8. Apply glue to the interior of another of the body segments and slip it over the projecting coupling tube until the body segments are flush. Repeat the gluing in of the coupling on the opposite end and add another body segment glueing it in position. You can roll the assembly on a flat surface to assure that the tubes are in alignment, then allow the assembly to remain on the surface until the glue is dry.
9. Take the 6" section of T25 tube and glue the adapter in one end. Sand the adapter slightly so that it will fit in the tube snugly. Half of the adapter should project out of the tube; roughly 5/8 inch.

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10. Test fit the balsa nose cone in the other end of the 6" T25 tube. The part that fits into the tube is called the TENON. Sand the tenon so that a smooth fit is obtained. If the nose cone fits snugly then you wont have to apply glue to keep in place and the 6" tube may act as a payload compartment.
11. Screw the screw eye into the center of the exposed balsa adapter. Unscrew, apply glue to hole , and rethread the screw eye into place.
12. Draw a line along one of the phaser tubes. The line should be parallel with the length of the tube. Measure one inch from the rear end of the tube and position the phaser tube support along the line forward. Glue the support into place. Repeat with the other tube and support.
13. Refer to the rear view of the STAR WARRIOR and note the position of the various elements and the angles that they make with each other.
14. Cut out the ventral fin pattern and mark one of the ventral fins using the pattern so that you can remove a 'slot' with a sharp hobby knife. Piece removed is approximately 3/32" by 1 1/4" long. Repeat on the second ventral fin. Apply glue to the slot and insert the ventral fin supports into each of the ventral fins. The end of the suppor should come flush with the outer face of the fin itself. Set the assemblies aside to dry.
15. Mark the rear of the tube for the position of the various pairs of structures and draw lines forward parallel to the axis of the main body. Measure 2 3/4" forward of the end of the rear of the lower body segment and glue the ventral fin support next to the alignment line. Do the same with the other ventral fin support. Take the four two inch long sticks and glue one on either side of each of the supports so that the front end of each is flush with the support front end and the rear projecting 3/4" rearward of the rear edge of the supports. Allow to dry with the ventral fins suspended over the edge of a table.
16. Locate the dorsal wing lines and light mark a line on each dorsal fin two inches in from the outer edge. Place a dot 1/4" in from the rear on each line. Glue one fin to the interior of the reference line that you have drawn on the T25 tube assembly, with its rear edge 7 1/4" forward of the end of the assembly. Treat the other fin in a similar manner, and then while both glue joints are flexible apply glue to the ends of the the dorsal fin support and position between the wings as illustrated. Carefully allow the assembly to dry. Check alignment again after drying is complete.
17. Take two of the four 8 inch sticks of balsa and glue them one in front of the other directly in line with one of the dorsal fins and projecting forward. Repeat the same operation with the two remaining 8 inch sticks.
18. Measure 13 inches forward of the rear end of the main assembly and position and glue in place each of the phaser tube support /phaser assemblies along the proper lines.
19. Place a position mark 5 3/4" from the end of the main assembly on the keel line. Apply glue to the root edge of the keel and glue in position directly over the keel line with the rear point on the position mark. Allow to dry.

20. When the complete assembly is dry, go back and apply glue fillets along both sides of all glue joints where balsa is glued to the body tubes or balsa to balsa. This will assure you that you have stronger bonding.

21. Glue the four inch long balsa stick to the exterior of the right hand phaser tube, flush with the front.

22. Apply glue to the surface of the shock cord mount and thread the shock cord through the holes as indicated. Reach into the forward end of the assembly from step 21 and secure the mount to the interior surface so that it is at least one inch deep at its forwardmost edge. Cover the gauze with glue and secure over the top of the mount that you have just installed.

23. When the assembly from 22 is dry you can take the nose cone assembly and thread the shock cord through the screw eye and tie a knot. Apply glue to the exterior of the knot to secure it.

24. Cut the remaining balsa stick to the length of the launch lug. Glue the stick onto the lug so that the long dimension of each are parallel. Glue the support onto the main body just below the left dorsal fin on a line parallel to the main body. Apply additional fillets so that the lug/support is secure. Allow to dry.

25. The parachutes are constructed from the kits and are attached to the model at the screw eye. The model is recovered as a unit under the pair of canopies.

26. Place the parachutes and the shock cord in the lower body and set the nose cone assembly in place, the adapter mating with the rear section. The adapter must fit snugly but still 'pop' out on activation of the ejection charge. The completed model should resemble the line drawings.

27. Apply two coats of balsa filler coat to all balsa surfaces and to the tubing also. Sand with fine sand paper in between. Paint the model with two coats of light grey paint. Allow to dry thoroughly.

28. The decals may be applied as you see fit or according to the photo sheet. (Sheet to be provided in full scale production kits). Apply the decals in small segments. Soak the segment in water for up to one minute and then take the paper and position where you want it on the model and slide the decal off the paper into position.

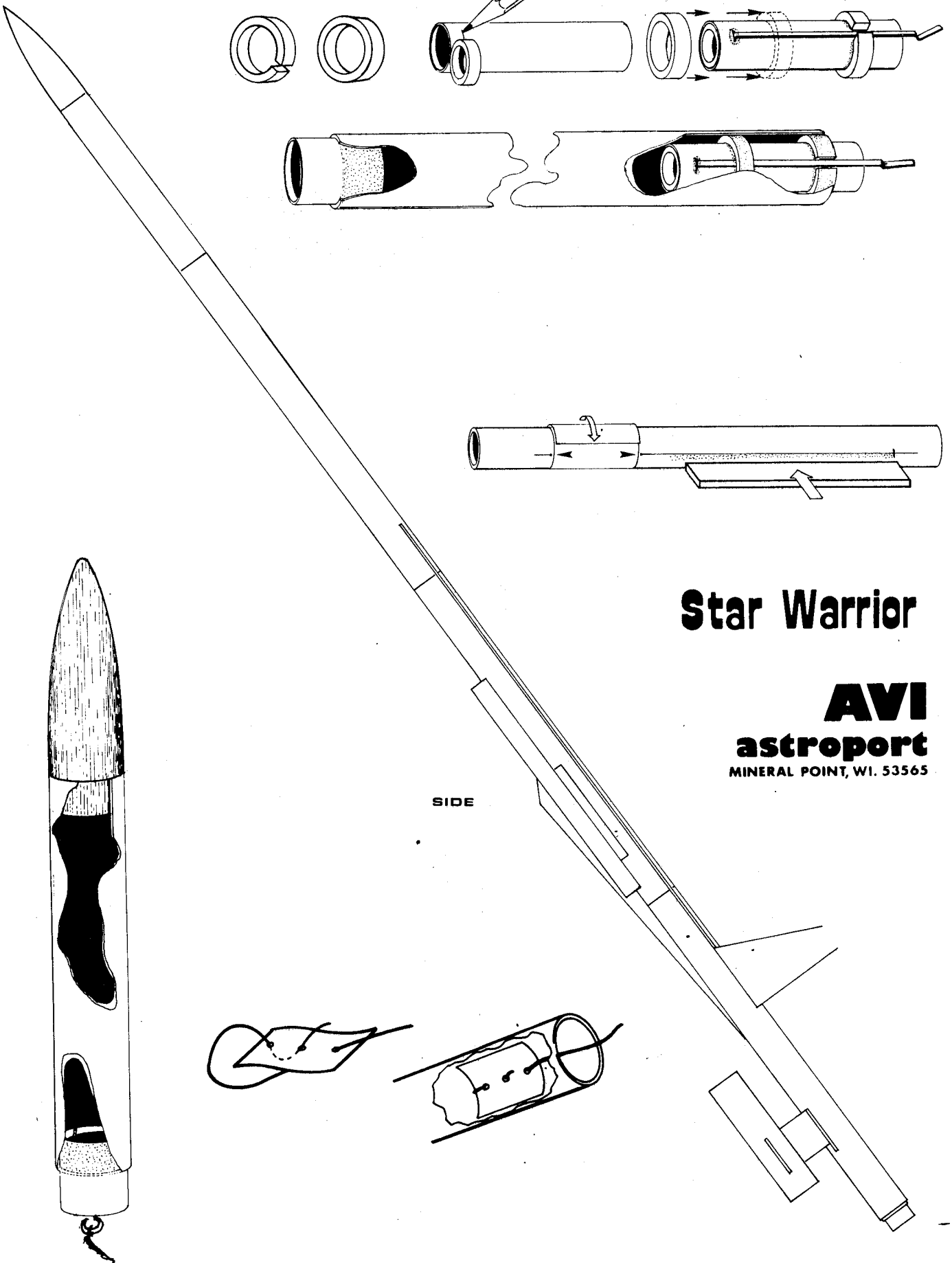
29. After all decals are applied and dry you can provide a protective clear overcoat to the complete model.

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When flying your model obey all instructions on the COUNTDOWN CARD and any applicable local regulations and laws. Fly the model with either C6-4 or C6-5 engines, using an electric launch system.

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SIDE

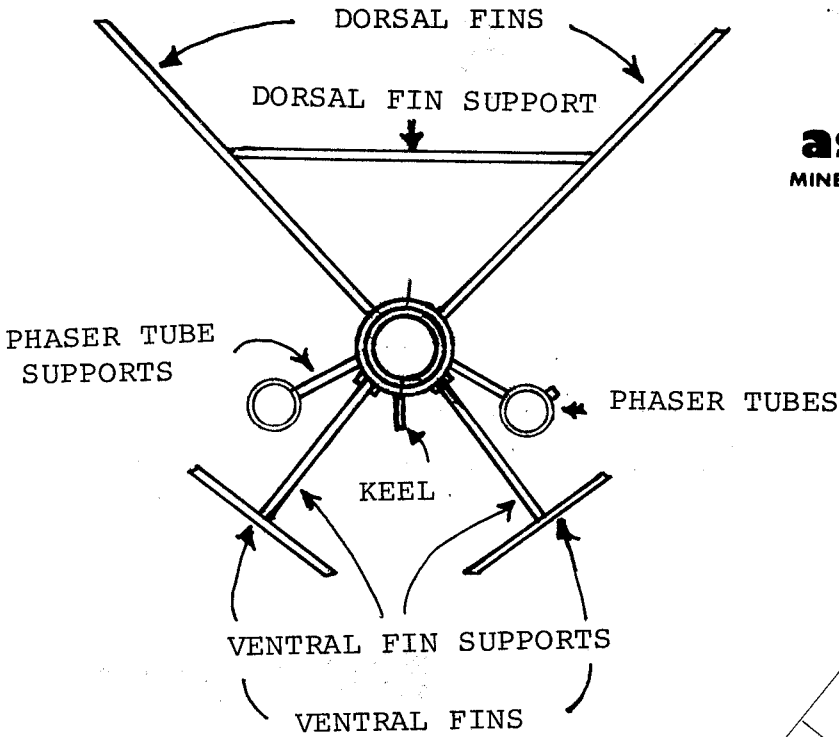
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PHASER TUBES

BOTTOM

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KEEL

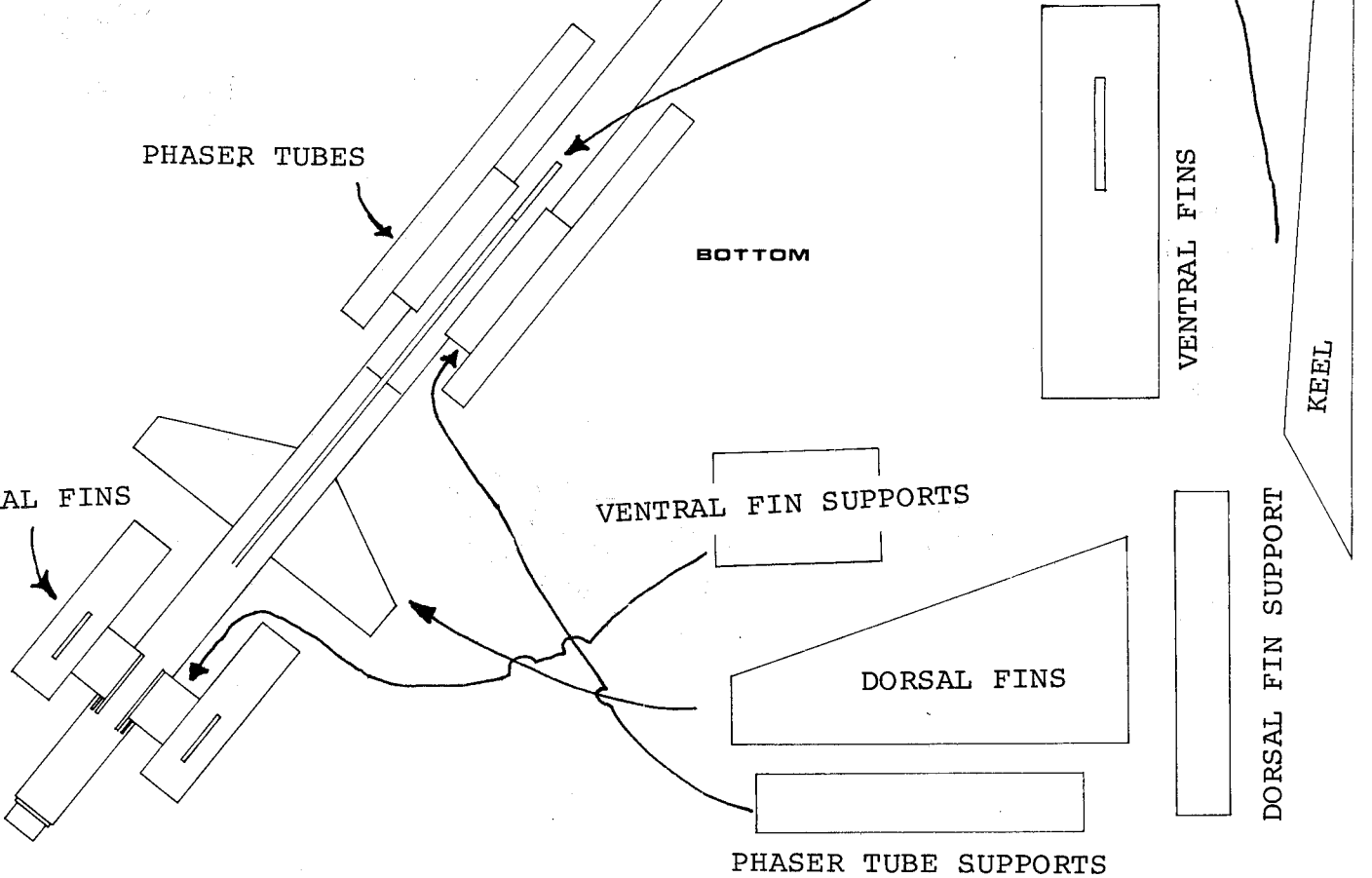
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