U.S.S. ATLANTIS

KIT NO. 1283

PARTS LIST

<table>
<thead>
<tr>
<th>PART NO.</th>
<th>PART</th>
</tr>
</thead>
<tbody>
<tr>
<td>A) 30326</td>
<td>Engine Mount Tube (type BT-20J)</td>
</tr>
<tr>
<td>B) 83208</td>
<td>Pattern Sheet (type SP-83)</td>
</tr>
<tr>
<td>C) 35025</td>
<td>Engine Hook (type EH-2)</td>
</tr>
<tr>
<td>D) 30061</td>
<td>Die-Cut Card Sheet (type TA-83)</td>
</tr>
<tr>
<td>E) 30164</td>
<td>Adapter Ring (type AR-2050)</td>
</tr>
<tr>
<td>F) 85730</td>
<td>Shock Cord (type SC-1)</td>
</tr>
<tr>
<td>G) 30352</td>
<td>Body Tube (type BT-50)</td>
</tr>
<tr>
<td>H) 32245</td>
<td>Die-Cut Balsa Sheet (type BF-83)</td>
</tr>
<tr>
<td>I) 32056</td>
<td>1/8” Dia. Wood Dowels (type WD-1)</td>
</tr>
<tr>
<td>J) 30322</td>
<td>Drive Unit Body Tubes (type BT-20D)</td>
</tr>
<tr>
<td>K) 85909</td>
<td>1/12” Dia. Wood Dowel (type WD-2A)</td>
</tr>
<tr>
<td>L) 38179</td>
<td>Launch Lug (type LL-2B)</td>
</tr>
<tr>
<td>M) 85564</td>
<td>Parachute (type PK-12A)</td>
</tr>
<tr>
<td>N) 38237</td>
<td>72” Shroud Line Cord (type SLT-72)</td>
</tr>
<tr>
<td>O) 38406</td>
<td>Tape Disks (type TD-3F)</td>
</tr>
<tr>
<td>P) 71010</td>
<td>Nose Cone (type PNC-50X)</td>
</tr>
<tr>
<td>Q) 37084</td>
<td>Decal (type KD-83)</td>
</tr>
</tbody>
</table>

In addition to the parts included in this kit you will need scissors, white glue, a sharp model knife (or single edge razor blade), sandpaper, sanding sealer, a ruler, and paint.

IMPORTANT:

Read all instructions before beginning work on your model. Make sure you have all parts and materials. When you are thoroughly familiar with the assembly procedure, begin construction. Check off each step as you complete it. In each step, test-fit the parts together before applying any glue. If some part does not fit properly, sand lightly or build up as appropriate for precision assembly.

ESTES INDUSTRIES

A SUBSIDIARY OF DAMON

PENROSE, COLO. 81240
1. Mark the engine mount tube (part A) 1/4" from one end. Cut a 1/8" long slit in the tube at the mark as shown. Cut out the hold-down strap from the pattern sheet (part B). Apply a 1" long line of glue to the tube as shown. Push one end of the engine hook (part C) into the slit and press the main part of the hook into the glue. Apply glue to one side of the hold-down strap and wrap it tightly, glue side in, around the middle of the tube over the engine hook.

2. Glue the split ring from the die-cut card sheet (part D) to the engine mount tube even with the rear end (the end with the overhanging hook) so the slot is over the hook. Avoid getting glue in the slot. Glue the adapter ring (part E) to the front of the engine mount against the end of the hook as shown.

3. Cut out the shock cord mount from the pattern sheet. Crease it on the dotted lines by folding. Spread glue on the first section (1) and lay the end of the shock cord (part F) into the glue. Fold over and apply glue to the back of the first section and the exposed part of section 2. Clamp the unit together with your fingers until the glue sets.

4. Apply glue to the inside of the body tube (part G) at one end over an area about 1" to 2" from the end. The glued area should be the same size as the shock cord mount. Press the mount into the glue as shown and hold it until the glue sets.

5. Smear glue around the inside of the opposite end (rear) of the body tube to cover an area about 2" to 2-1/2" from the end of the tube. Immediately insert the engine mount unit, being careful to position it so the engine hook will stick out of the end of the tube. Push the engine mount in one smooth motion until the ends of the tubes (and the split ring) are even.

6. Cut out the body tube marking guide from the pattern sheet. Wrap it around the rear of the body so the arrows for the "Main Deck" are in line with the engine hook. Mark the tube at each arrow point, front and rear. Draw a straight line connecting each matching front and rear mark. (Use a ruler when drawing lines.) Extend the deck line the length of the tube. Extend the other lines forward 10".

7. Fine sand the balsa sheet (part H), then carefully remove the die-cut parts from the sheet. Free the edges with a sharp knife. Sand the edges of the parts to remove any rough spots, but leave the edges square and sharp.
Spread a piece of waxed paper on a smooth, flat table surface. Glue the deck parts together, weighting them down to hold them in place and flat on the table. Allow the parts to dry before applying them.

Mark the drive pylon lines 1-3/4" from the rear of the body. Mark the fin line 3/8" from the body rear. Glue the two pylons to the body with their lower edges even with the alignment lines. The rear of each pylon should be on the 1-3/4" mark. Glue the fin to the body, centered on its line, 3/8" from the tube rear.

Cut two 5-1/4" and two 4-3/4" long pieces from the large diameter dowel material (part 1). Glue the 5-1/4" pieces to the body on the dowel lines with their rear ends 4-1/2" from the rear of the body. Glue the two 4-3/4" pieces on the body against the undersides of the pylons with the rear of the even with the rears of the pylons.

Cut out the drive tube marking guide from the pattern sheet. Mark one end of each drive tube (part H) "front". Wrap the guide around a drive tube so edge "L" is 1/8" from the front end and mark the tube at each arrow point. Write "left" on this tube. Wrap the guide around the other drive tube so edge "R" is 1/8" from the front and mark at each arrow. Write "right" on this tube. Draw a straight line connecting each matching front and rear mark and extending the length of the tube. (Use a ruler when drawing lines.) Mark the pylon line on both tubes 1" from the front. Mark the other lines on both tubes 5/8" from the rear.

Glue the lower deck pieces to the upper dowels. Position the deck pieces so their front edges are even with the dowel front edges. Make sure each piece sticks straight out from the other when you view the model from the rear.
13. Glue the drive tubes to the drive pylons. Make sure you attach the left tube to the left pylon with the model pointed away from you. Apply glue to the pylon tip and press the tube in place with the upper edge of the pylon even with the alignment line and the front of the tube 1" ahead of the front of the pylon. Hold in place while the glue sets, then attach the right tube to the right pylon in the same manner.

14. Assemble the sensor unit. Separate the two large rectangles and the disc with the small center hole from the die-cut card sheet. Glue one rectangle to the fin 5/16" from the body as shown. Cut a 7/8" length of the small dowel (part K). Glue the dowel piece to the fin and card rectangle as shown. The second rectangle is glued to the fin and dowel on the side opposite the first. Slide the disc onto the dowel and glue it 1/8" from the rectangles.

15. Mark the main deck alignment line 1/4" from the rear of the body. Glue the main deck assembly to the body so its rear end is on the mark and the assembly is centered on the line.

16. Cut four pieces of the large diameter dowel, each 1-3/8" long, two pieces each 3-3/8" long, and one piece 2-1/4" long. Glue the four short pieces to the drive tubes on the upper alignment lines, 5/8" from the rear of the tube as shown. Glue the two long pieces to the drive tubes and pylons (see illustration) with the front of each dowel 1-1/4" from the front of its tube. Glue the remaining dowel to the tip of the fin with the front of the dowel 1/4" ahead of the fin tip.

17. Separate the small rectangles from the die-cut card. Glue four of the pieces to the drive tubes at the rear, centered on the panel alignment lines. Each rectangle's rear should be 5/8" from the tube rear. Cut out the trim positioning guide from the pattern sheet. Wrap it on the under side of the left drive tube at the front so the rear arrow marked "Left Drive Pylon" is against the top edge of the drive pylon. Mark the tube at each front arrow point. Glue three rectangles to the tube, centered between their marks, 1/4" from the front of the tube. Attach the remaining three rectangles to the right drive tube in the same way.
18 Remove the four remaining large discs from the die-cut card. Glue one to each end of each drive tube, being careful to center the discs on the tube ends. Remove the larger deck disc and glue it to the center of the deck, 7" from the rear of the body. Let the glue dry several minutes, then glue the two 5/8" diameter discs to the front of the drive units. Glue the last (and smallest) disc to the center of the first disc on the main deck.

19 Glue the launch lug (part L) to the underside of the model against a long dowel as shown. The rear of the launch lug should be 4-5/8" from the rear of the body.

20 Apply a glue "fillet" to the pylon, fin, and lower deck joints. Holding the rocket horizontally (level), apply a line of glue to both sides of each joint. Smooth out the glue with your finger. Keep the rocket level until the glue dries.

21 Cut out the parachute (part M) on its edge lines. Cut three 24" lengths of shroud line (part N). Attach line ends to top surface of parachute with tape discs (part O) as shown. Pass shroud line loops through ring on nose cone (part P). Pass parachute through loop ends and draw lines tight against ring. Set knot with a drop of glue. Tie free end of shock cord to nose cone.

SEE BACK OF PARTS LIST FOR FINISHING INSTRUCTIONS
FINISHING YOUR U.S.S. ATLANTIS

CAMOUFLAGE GRAY—OVERALL ROCKET (WHITE—OPTIONAL)

DECALS ON "HIDDEN" SIDE OF ROCKET MATCH DECALS SHOWN

BOTTOM VIEW

DECAL EVEN WITH ENDS OF DOWELS

FRONT OF DRIVE PYLONS—FLUORESCENT ORANGE

ANTENNA BASE—COPPER

SENSOR UNIT PANELS—DARK GRAY

4 REAR PANELS—DARK GRAY

COUNTDOWN CHECKLIST

Be sure to follow the HIAA - NAR Model Rocketry Safety Code when carrying out all your model rocketry activities.

T-14 Pack four squares of loosely crumpled recovery wadding into body tube.

FOLD AND WRAP SHROUD LINES AROUND PARACHUTE

INSERT AFTER RECOVERY WADDNG

T-13 Fold the parachute into a triangular shape. Roll 'chute tightly as shown and wrap shroud lines around it. If 'chute is too large, unroll it and repack until it slides easily into rocket. A fit that is too tight may prevent parachute from ejecting properly.

NOTE: DO NOT pack parachute until you are actually ready to launch. For maximum parachute reliability, lightly dust the 'chute with ordinary talcum powder before each flight, especially in cold weather.

T-12 Pack shock cord neatly into rocket, then slide the nose cone into place. Nose cone should separate easily from rocket body tube, but should not be extremely loose. If it is too tight, sand inside of body tube end and shoulder of nose cone with extra fine sandpaper.

If nose cone is too loose, add a wrapping of transparent tape or masking tape to the shoulder of the nose cone.

T-11 Select an engine and install an igniter as directed in the engine instructions. Engines recommended for use with this rocket are the A6-3, B4-4, B6-4, and C6-5 made by Estes.

[Use a B6-4 engine for your first flight.]

T-10 Insert engine into rocket. Engine hook must latch securely over end of engine.

T-9 Disarm the launch panel—remove safety key.

T-8 Place rocket on launch pad, making sure rocket slides freely on launch rod. Clean the micro-clips and attach them to the igniter.

T-7 Clear the launch area, alert recovery crew and trackers. Check for low flying aircraft and unauthorized persons in the recovery area.

T-6 Arm the launch panel—insect safety key.

5 4 3 2 1 LAUNCH!!

MISFIRE PROCEDURE

Occasionally the igniter will heat and burn in two without igniting the engine. This is almost always caused by a failure to install it correctly. Disarm the launch panel, remove the model, clean the igniter residue from the nozzle, and install a new igniter. Follow the launching procedure again.