Bob Miley

This ATM provides data on the Passive Seismic Experiment Thermal Shroud stowing and handling procedure based on the Prototype model procedure received from Teledyne/Earth Sciences Division.

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Approved by: J. E. Dye

THERMAL SHROUD

STOWING & HANDLING

PROCEDURE

NAS 95829 P/N 233411- S/N 1500- 2

Designed and Fabricated by

EASTON PRECISION TUBE

A Division of

Jas. D. Easton, Inc., 15137 Califa Street
Van Nuys, California

THERMAL SHROUD HANDLING INSTRUCTIONS

1. Never handle shroud (stowed or unstowed) without wearing clean lint-free white cotton gloves.

2. Handle the shroud as a fragile assembly. While stowed, it is quite handleable, but by no means rugged.

3. While unstowed, the shroud should always be on a clean flat table (except when mounted to sensor or in test).

4. While unstowed, never handle shroud by vertical portion of insulation. Either fully stow or partially stow the shroud before handling.

5. Do not use sharp instruments or tools near shroud. It is very susceptible to puncture or tearing.

6. When moving or transporting shroud, always pack stowed or semi-stowed (loose packed without tight girdle) in the shroud shipping container.

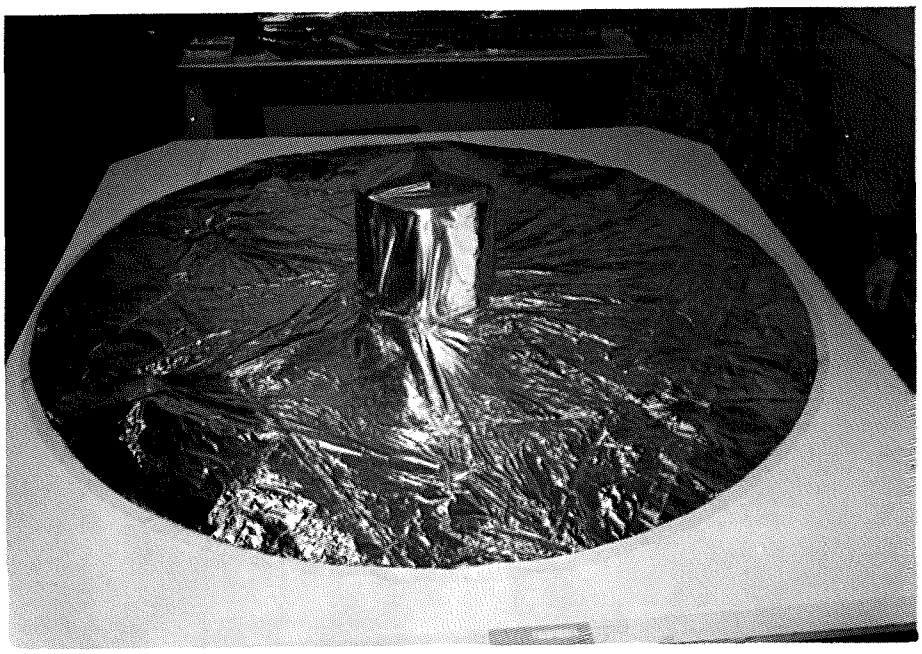

FIG. 1

STEP 1. Lay out shroud in fully unfolded position. Straighten skirt by pulling in a radial direction on the bottom layer (clear Mylar) of material around the complete circumference, see Figure 1.

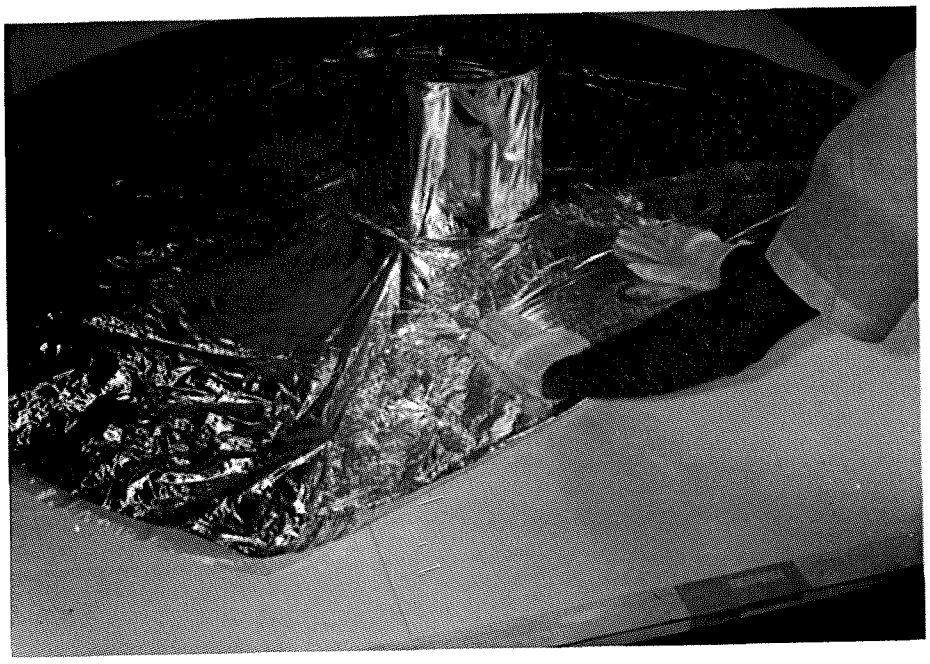

Fig. 2

STEP 2. At a circumferential position corresponding to one of the six skirt fastener buttons, make first skirt fold radially as shown in Figure 2 until edge is just touching upright cylinder. Edge of folded portion should be approximately tangent to two adjacent skirt buttons. Squeeze out excess air from fold as shown.

FIG. 3

STEP 3. Make second skirt fold similar to first as shown in Figure 3. Again align edge with upright cylinder and next adjacent skirt button. Squeeze out excess air.

FIG. 4

STEP 4. Continue the above skirt folding technique until the hexagonal fold pattern of Figure 4 is obtained. At the completion of this stage of folding, again squeeze excess air out of entire folded skirt.

FIG. 5

STEP 5. Make first "second stage" fold by bringing one of the six points of hexagonal pattern up vertically and folding over the top as shown in Figure 5. Hold in this position. After this step, two men are required to complete stowing.

FIG. 6

STEP 6. Bring up an adjacent hexagon point in same manner. Form pleat in excess material and tuck in as shown in Figure 6. Fold over top and again hold. External fold line should be vertical as seen in Figure 7.

THERMAL SHROUD STOWING PROCEDURE.

FIG. 7

STEP 7. Fold up next adjacent hexagon point in same manner as previously, continue holding material in position at top. Be sure that fold lines around cylinder are vertical. See Figure 8. Bring up fourth and fifth point in same manner until shroud is in configuration of Figure 9.

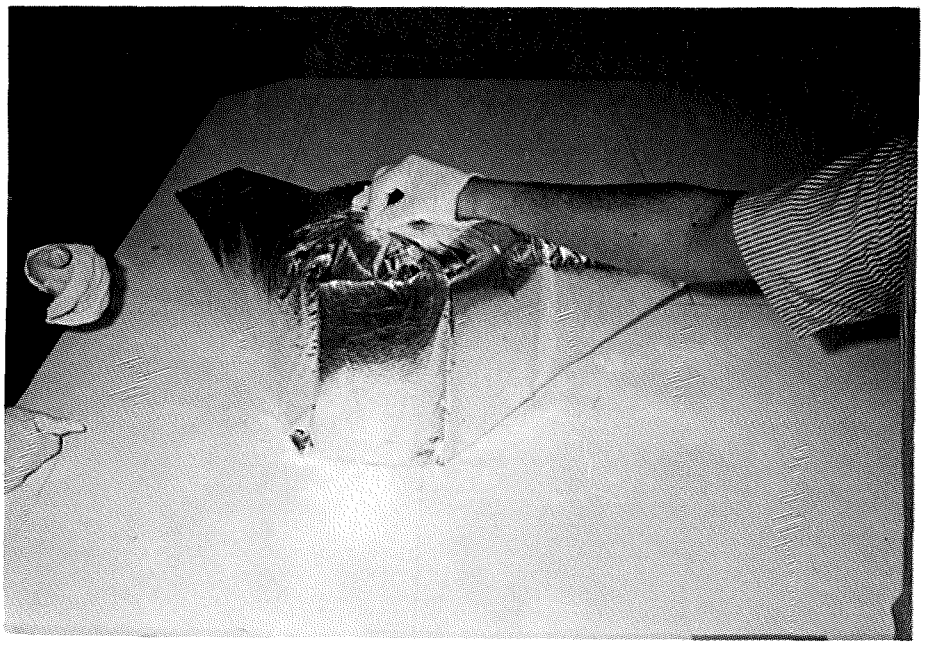

FIG. 8

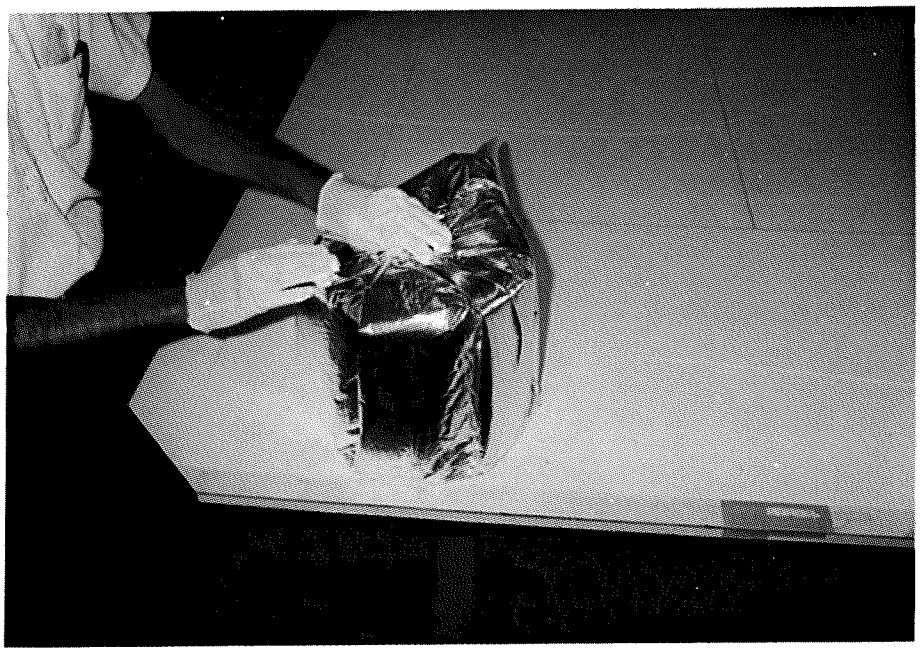

FIG. 9

STEP 8. Bring up sixth point by folding in inside double pleat, maintaining vertical fold lines as in Figure 10.

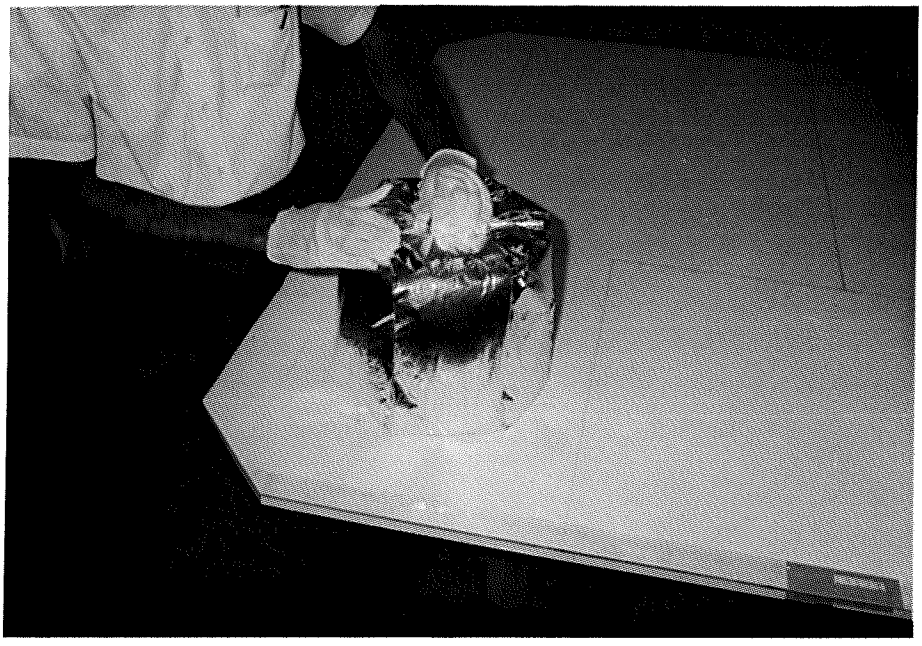

FIG. 10

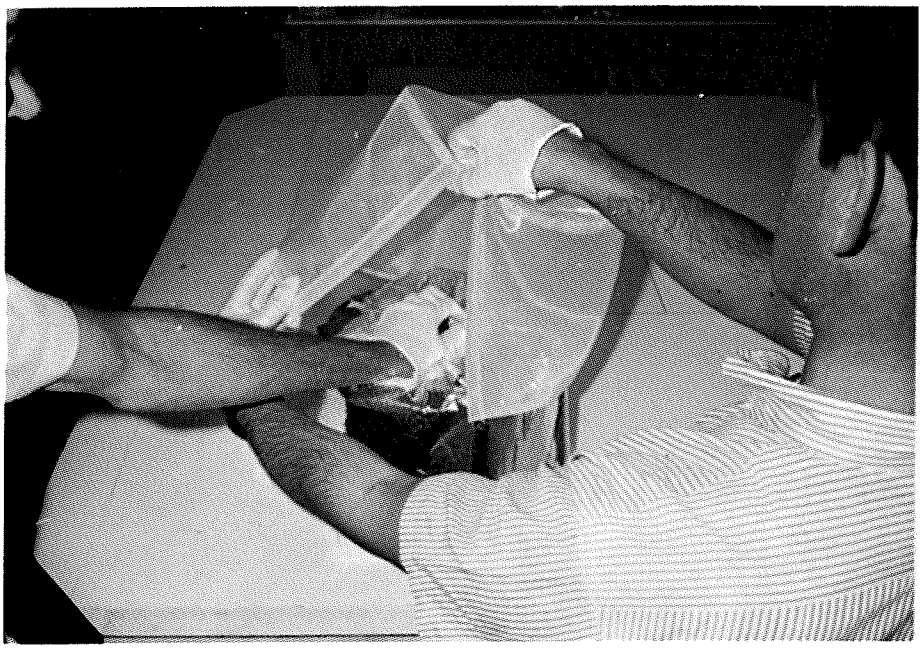

FIG. 11

STEP 9. While first person holds all insulation gathered at top with one hand, second person brings shroud stowage girdle over the arm of the first as in Figure 11. As girdle is brought down, first person slowly removes hand from inside girdle while at the same time holding insulation down with other hand from outside the girdle (Figure 12).

FIG. 12

THERMAL SHROUD STOWING PROCEDURE.

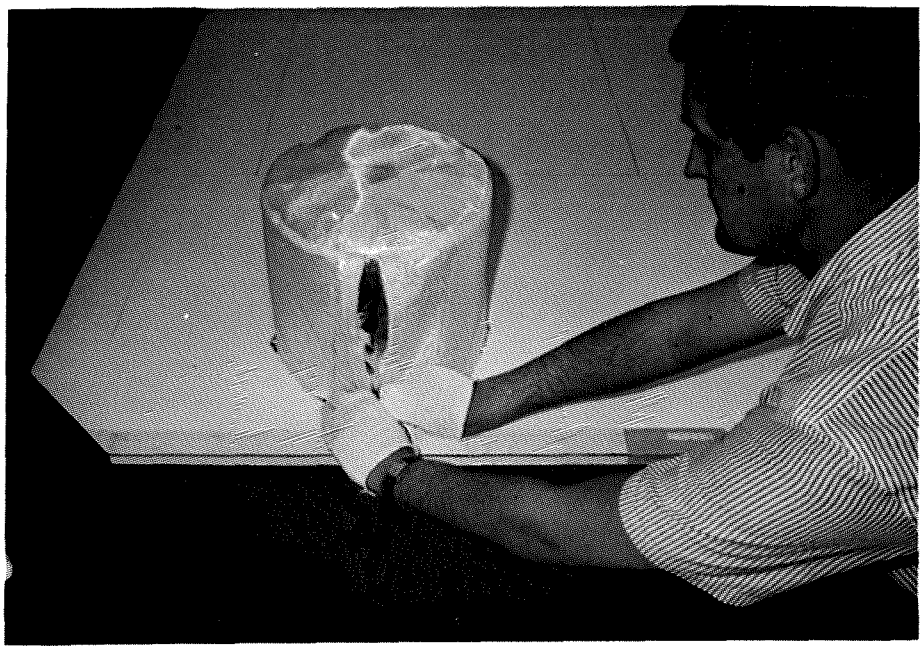

FIG. 13

STEP 10. While second person holds girdle bottom ends together as shown in Figure 13, first person inserts astronaut release pin in slotted seam of girdle (Figure 14). Shroud is now in the configuration of Figure 15.

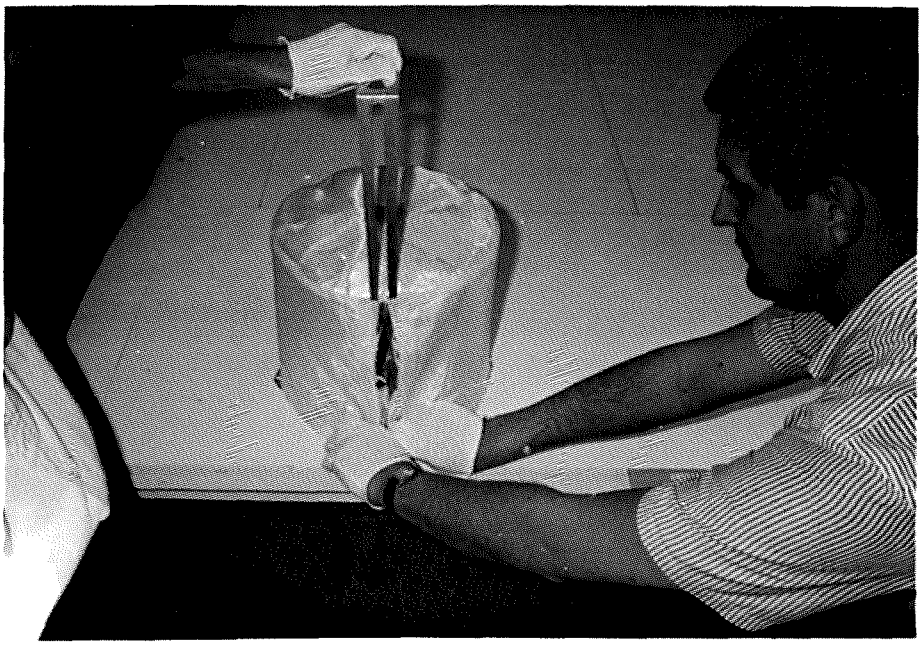

FIG. 14

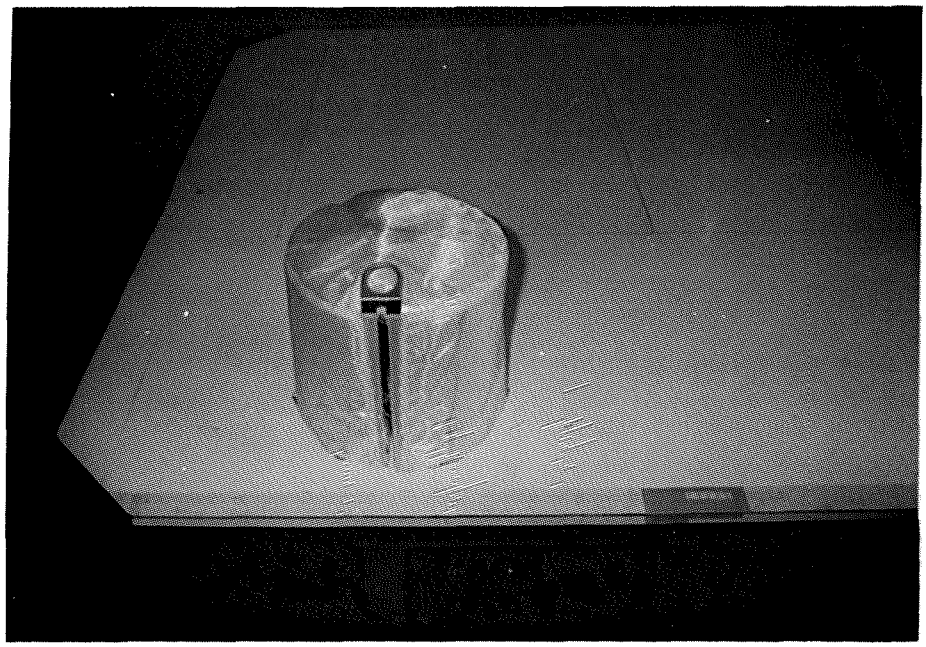

FIG. 15

STEP 11. Final tucking and straightening of the stowed insulation should be made before installing shroud on sensor assembly (Figure 16). This completes stowing procedure.

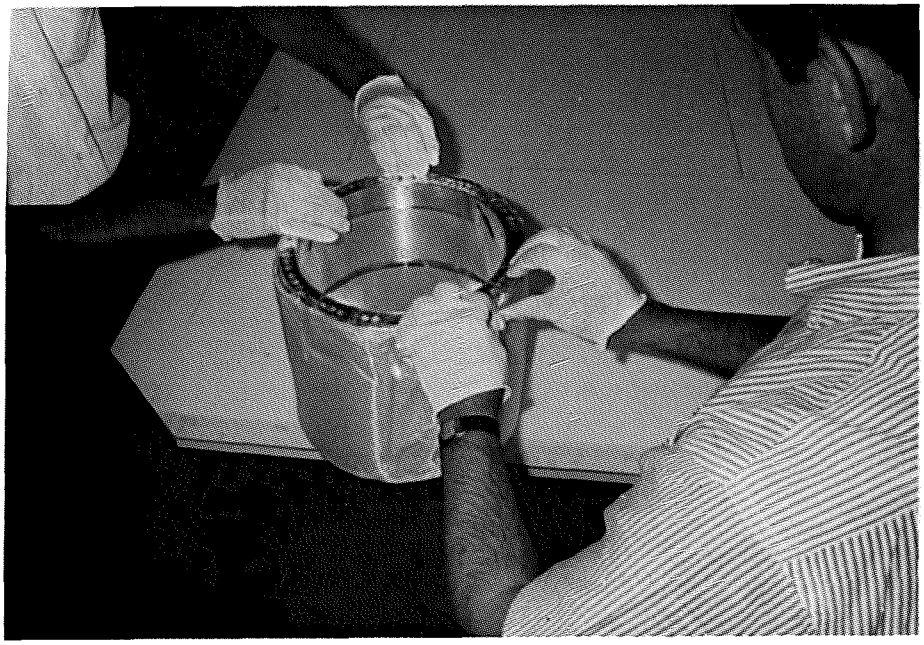

FIG. 16