

CHAPTER 10**RIGGING THE S-502 OR S-250/G SHELTERS WITH
AN/GRC-142 COMMUNICATIONS EQUIPMENT ON THE TYPE V PLATFORM****Section I****LOW-VELOCITY AIRDROP****10-1. Description of Load**

The S-502 shelter (line number S96381) or S-250/G shelter (line number S96381) is rigged on an 8-foot, type V platform for low-velocity airdrop. The load requires one G-11A or G-11B cargo parachute. The S-502 and S-250/G shelters are rigged the same. The S-502 shelter is shown photographed throughout this section. The unrigged S-502 shelter with AN/GRC-142 equipment installed weighs 2,110 pounds. It is 98 inches long, 70 inches high, and 79 inches wide. The unrigged S-250/G shelter with AN/GRC-142 equipment installed weighs 2,410 pounds. It is 97 inches long, 71 inches high, and 83 inches wide.

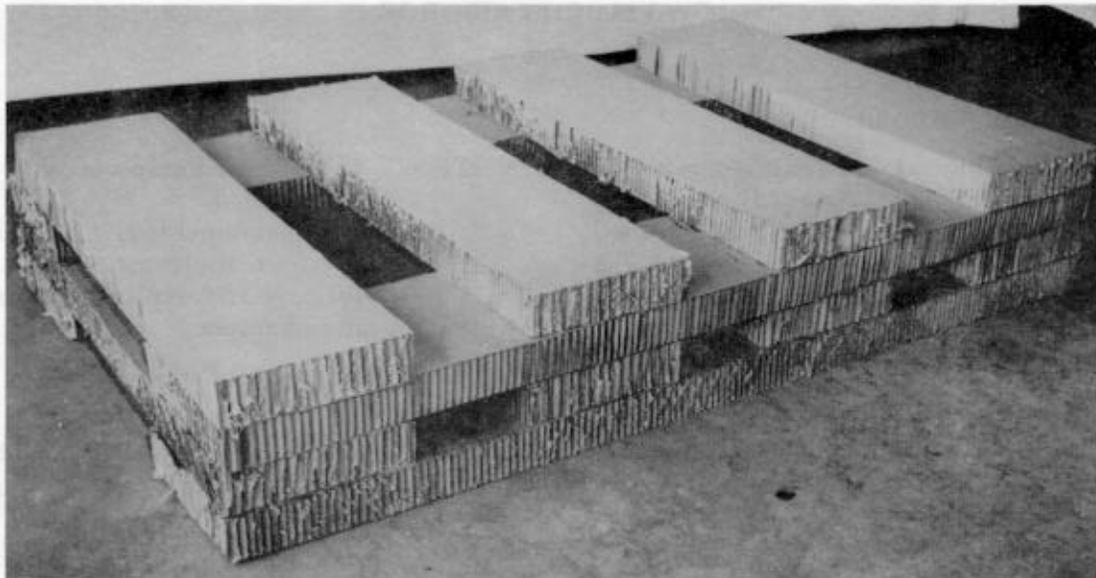
10-2. Preparing Platform

Prepare an 8-foot, type V airdrop platform using four tandem links and eight clevis assemblies as shown in Figure 9-1.

- NOTES:**
1. The nose bumper may or may not be installed.
 2. Measurements given in this section are from the front edge of the platform, NOT from the front edge of the nose bumper.

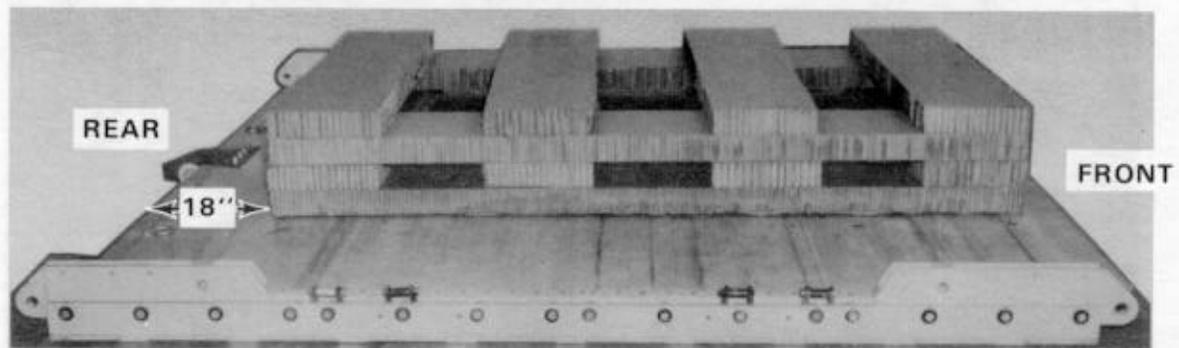
**10-3. Preparing and Positioning
Honeycomb Stack**

Prepare the honeycomb stack as shown in Figure 10-1. Position the stack on the platform as shown in Figure 10-2.



| Stack Number | Pieces | Width (Inches) | Length (Inches) | Material | Instructions |
|--------------|--------|----------------|-----------------|-----------|---|
| 1 | 2 | 12 | 82 | Honeycomb | Lay honeycomb parallel and 25 inches apart. |
| | 4 | 49 | 12 | Honeycomb | Glue a piece of honeycomb perpendicular to the base pieces even with each end. Glue two pieces of honeycomb perpendicular to the base and evenly spaced between the two end pieces. |
| | 2 | 12 | 82 | Honeycomb | Glue honeycomb flush over the long edges of the stack. |
| | 4 | 49 | 12 | Honeycomb | Glue honeycomb to the top of the stack, flush with the 49- by 12-inch pieces placed previously. |

Figure 10-1. Honeycomb stack prepared



- ① Center the stack on the platform 18 inches from the rear edge of the platform.

Figure 10-2. Honeycomb stack positioned on platform

10-4. Preparing Shelter

Prepare the shelter as described below.

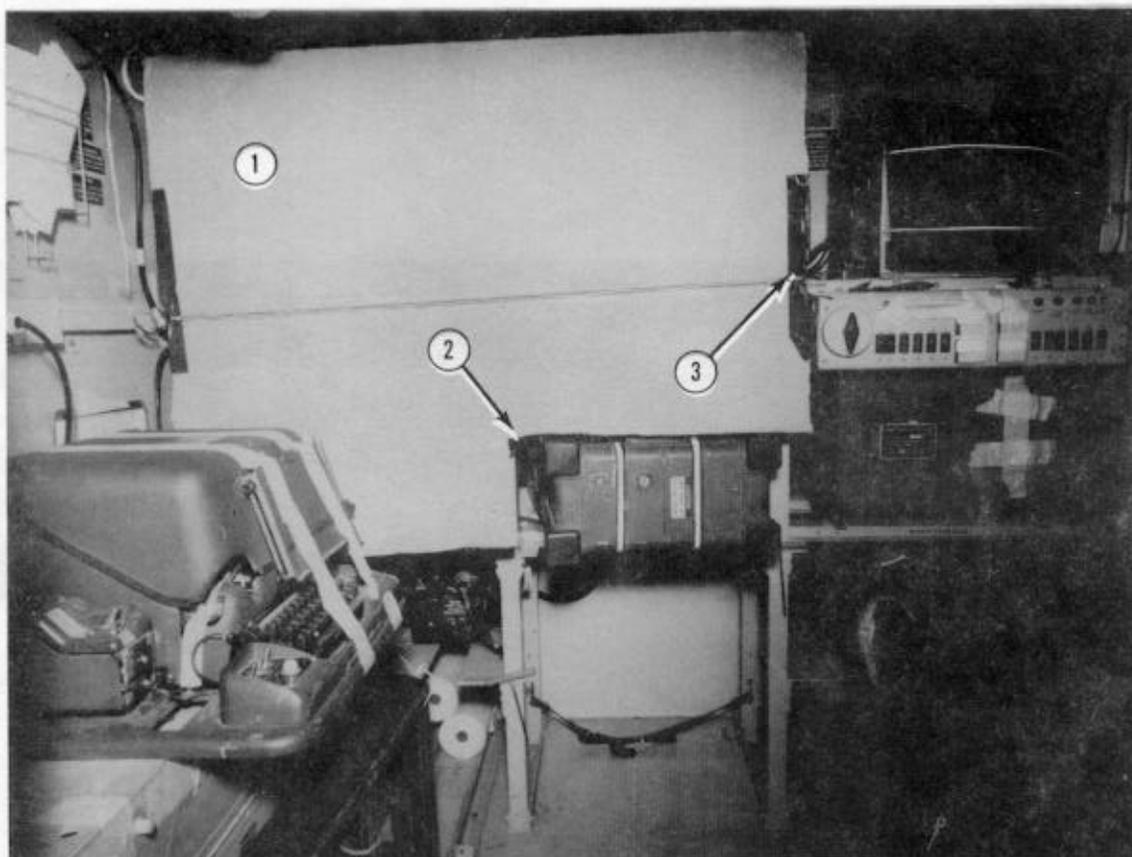
- a. If a TT-76 teletypewriter is present, prepare it as shown in Figure 9-5. Secure it in place with the pins provided.

b. Secure the radio equipment in its racks as shown in Figure 9-6.

NOTE: The power supply may be located on the right center shelf.

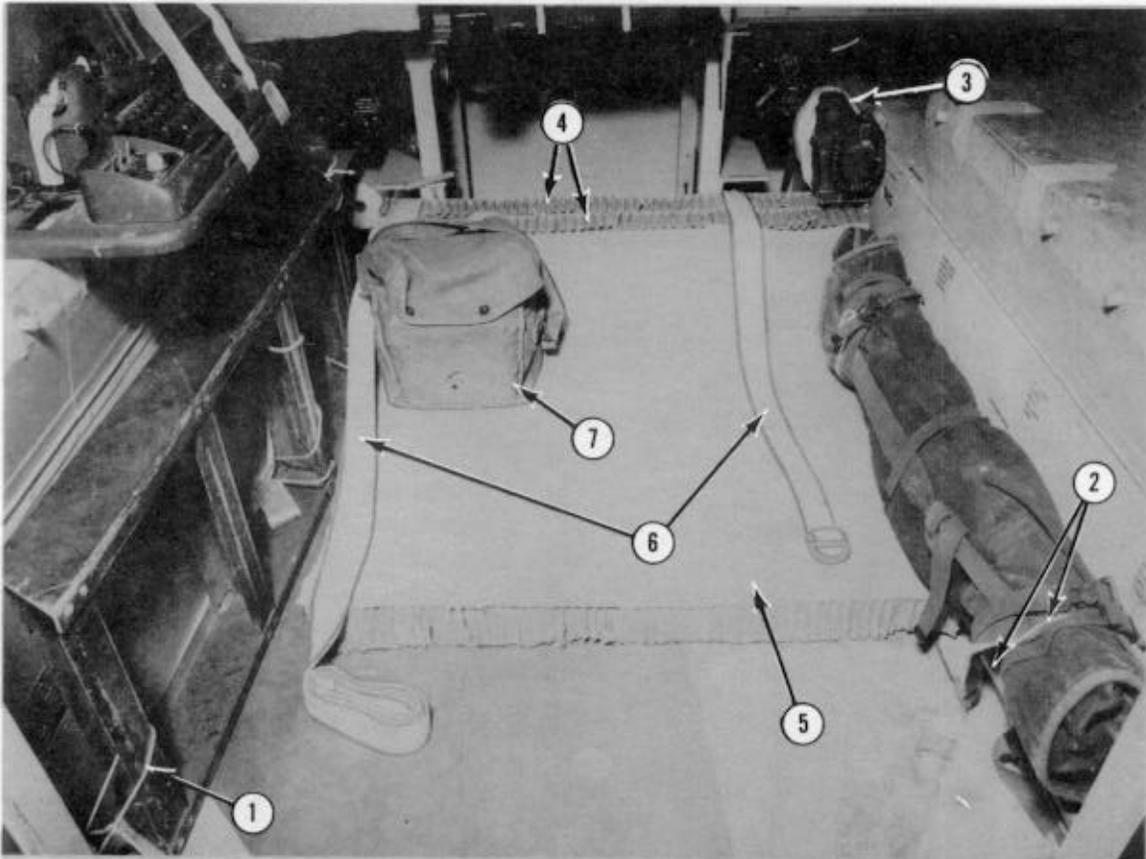
c. Cover the radio equipment with honeycomb as shown in Figure 10-3.

d. Prepare the floor of the shelter and stow shelter equipment as shown in Figure 10-4.



- ① Cut a 36- by 46-inch piece of honeycomb.
- ② Place the 36-inch edge against the left wall, and cover the left and center shelves. Make a cutout to allow for the AN/UGC-74(V)3 teletypewriter.
- ③ Secure the honeycomb to the equipment rack with type III nylon cord.

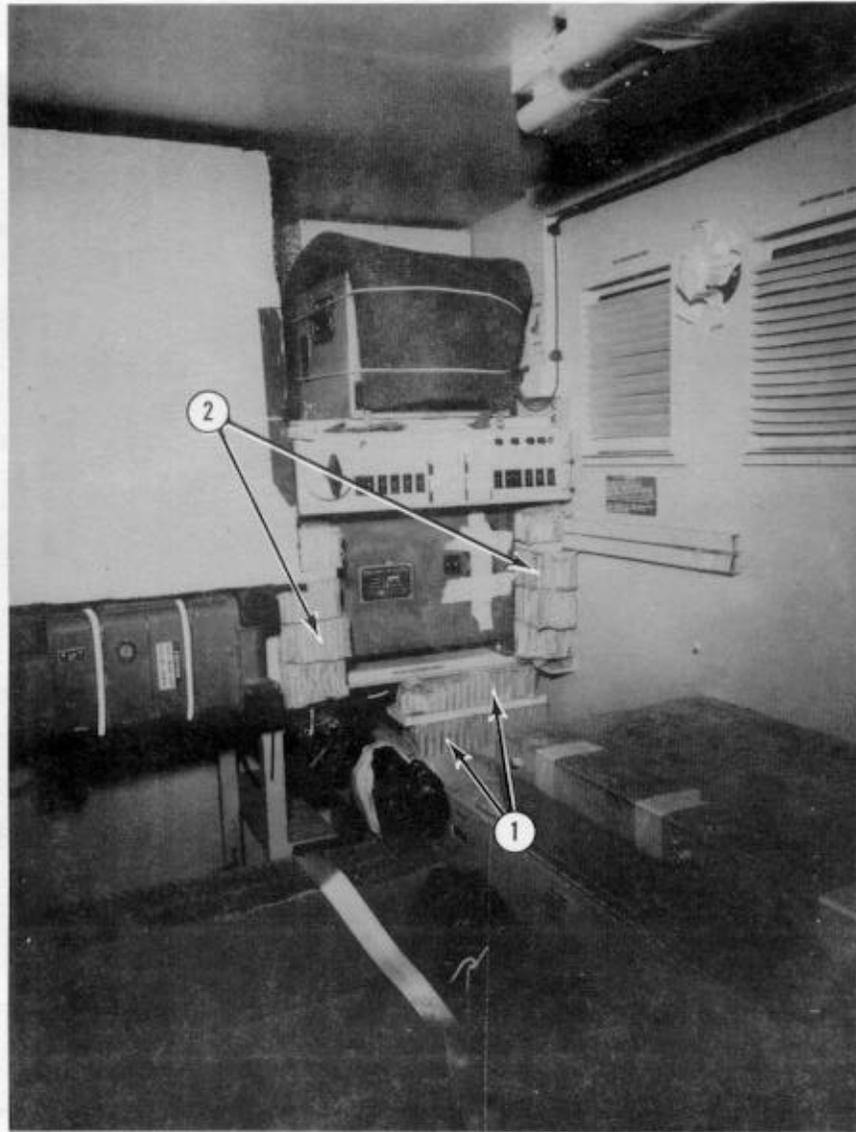
Figure 10-3. Honeycomb cover placed over radio equipment



- ① Secure the ladder in its bracket with type III nylon cord.
- ② Stow the sledgehammer in its rack near the floor on the right. Secure the antenna bag with the straps provided and with type III nylon cord.
- ③ Tape the telephone and its handset in the proper rack.
- ④ Set two 12- by 36-inch pieces of honeycomb on edge against the equipment rack.
- ⑤ Lay a 32- by 36-inch piece of honeycomb on the floor against the pieces placed in step 4 above.
- ⑥ Run a 15-foot tiedown strap behind the two center shelf supports and over the honeycomb.
- ⑦ Lay the GRA-50 bag in the left front corner.

Figure 10-4. Floor of shelter prepared

e. Place honeycomb and plywood supports for the power supply and crypto equipment as shown in Figure 10-5.

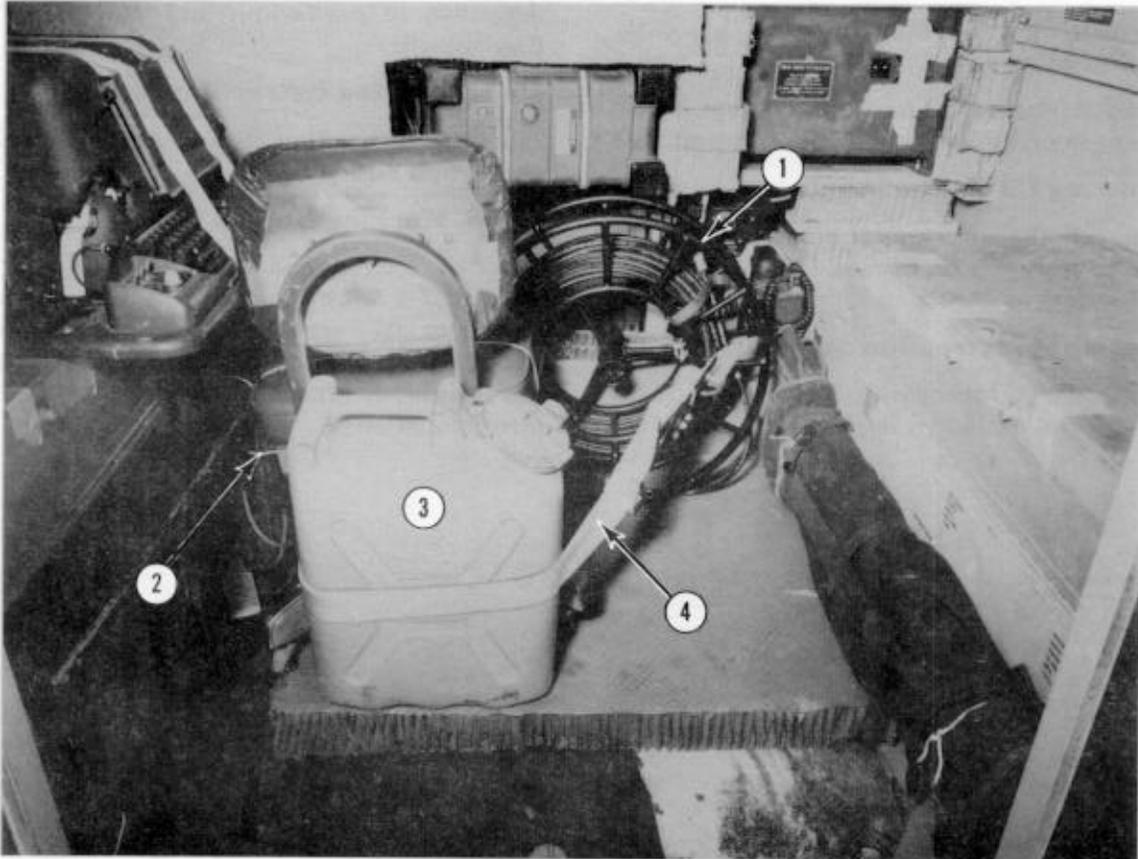


- ① Glue a 3/4- by 4- by 13-inch piece of plywood between two 4- by 13-inch pieces of honeycomb. Fit the support lengthwise between the right storage cabinet and the bottom of the power supply shelf.
- ② Use eight 3 1/2- by 13-inch pieces of honeycomb to make two four-layer stacks. Place a 3/4- by 3 1/2- by 13-inch piece of plywood between the third and fourth layers in each stack. Fit a stack on each side of the power supply.

Figure 10-5. Power supply and crypto components supported

f. Stow the remaining shelter equipment on the floor as shown in Figure 10-6.

g. Prepare the outside of the shelter as shown in Figure 9-11, but use two pieces of 82- by 36-inch honeycomb to cover the shelter roof.



- ① Set the power cable reel on the honeycomb against the upright pieces placed in step 4, Figure 10-4.
- ② Set the operator chair against the cable reel and the ladder. Tie the chair to the ladder with type III nylon cord.
- ③ Set a water can against the back of the chair.
- ④ Lash the items placed in steps 1, 2, and 3 above with the pre-positioned lashing.

Note: Additional items, such as camouflage nets and poles, may be placed and secured by adapting these procedures and those in Figure 9-10.

Figure 10-6. Shelter equipment placed on floor

10-5. Positioning Shelter

Position the shelter on the platform as shown in Figure 9-12.

10-6. Lashing Shelter

Lash the shelter to the platform as shown in Figure 9-13. The bottom tiedown rings need not be padded.

10-7. Installing and Safetying Suspension Slings

Install and safety four 12-foot (2-loop), type XXVI nylon suspension slings as shown in Figure 9-14.

10-8. Stowing Cargo Parachute

Place honeycomb for stowing the cargo parachute as shown in Figure 9-15. Stow a G-11A or G-11B cargo parachute as shown in Figure 9-16.

10-9. Installing Extraction System

Install the EFTC according to FM 10-500-2/TO 13C7-1-5 and as shown in Figure 9-17.

10-10. Installing Parachute Release

Prepare and install an M-1 cargo parachute release according to FM 10-500-2/TO 13C7-1-5 and as shown in Figure 9-18.

10-11. Installing Provisions for Emergency Restraints

Install provisions for emergency restraints as described in paragraph 9-11 and as shown in Figure 9-19.

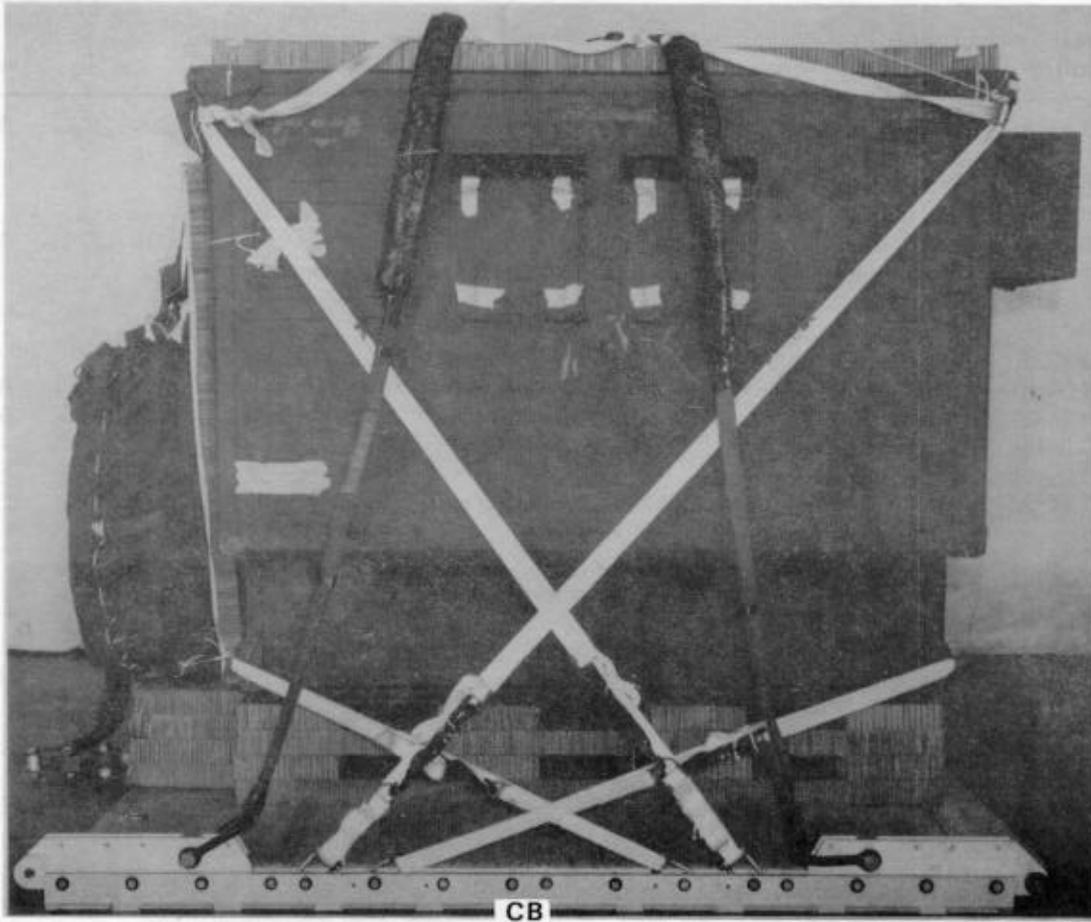
10-12. Placing Extraction Parachute

Place the extraction parachute as described in paragraph 9-12.

10-13. Marking Rigged Load

Mark the rigged load according to FM 10-500-2/TO 13C7-1-5 and as shown in Figure 10-7. Complete DD Form 1387-2, and securely attach it to the load. If the load varies from the one shown, the weight, height, CB, and parachute requirements must be recomputed.

CAUTION
 Make the final rigger inspection required by FM 10-500-2/TO 13C7-1-5 before the load leaves the rigging site.



RIGGED LOAD DATA

| | | |
|---|----------------------------|-------------------|
| Weight: | Load shown | 3,450 pounds |
| | Maximum load allowed | 4,500 pounds |
| Height | | 95 1/2 inches |
| Width | | 108 inches |
| Length (depending on ventilator installed) | | 120 to 131 inches |
| Overhang: | Front | 16 inches |
| | Rear | 19 inches |
| CB (from front edge of platform) | | 48 inches |

Figure 10-7. S-502 shelter with AN/GRC-142 communications equipment rigged for low-velocity airdrop on the type V platform

10-14. Equipment Required

Use the equipment listed in Table 10-1 to rig this load.

Table 10-1. Equipment required for rigging the S-502 or S-250/G shelter with AN/GRC-142 communications equipment for low-velocity airdrop on the type V platform

| National Stock Number | Item | Quantity |
|-----------------------|--|-------------|
| 8040-00-273-8713 | Adhesive, paste, 1-gal | As required |
| | Clevis, suspension: | |
| 4030-00-678-8562 | 3/4-in (medium) | 2 |
| 4030-00-090-5354 | 1-in (large) | 5 |
| 4020-00-240-2146 | Cord, nylon, type III, 550-lb | As required |
| 1670-00-434-5783 | Coupling, airdrop, extraction force transfer w 12-ft cable | 1 |
| | Cover: | |
| 1670-00-360-0328 | Clevis, large | 1 |
| 1670-00-360-0329 | Link assembly (type IV) | 1 |
| 8135-00-664-6958 | Cushioning material, packaging, cellulose wadding | As required |
| 8305-00-958-3685 | Felt, 1/2-in thick | As required |
| 1670-01-183-2678 | Leaf, extraction line | 2 |
| | Line, extraction: | |
| 1670-01-064-4452 | 60-ft (1-loop), type XXVI nylon webbing or | 1 |
| 1670-00-856-0265 | 60-ft (1-loop), type X nylon webbing | 1 |
| | (use w 15-ft parachute) | |
| 1670-01-107-7652 | 160-ft (1-loop), type XXVI nylon webbing | 1 |
| 1670-00-783-5988 | Link assembly, type IV | 1 |
| 1670-00-753-3928 | Pad, energy-dissipating, honeycomb, | |
| | 3- by 36- by 96-in | 6 sheets |
| | 3 1/2- by 13-in | (8) |
| | 4- by 13-in | (2) |
| | 12- by 36-in | (2) |
| | 12- by 82-in | (4) |
| | 18- by 36-in | (4) |
| | 32- by 36-in | (1) |
| | 36- by 46-in | (1) |
| | 36- by 62-in | (1) |
| | 49- by 12-in | (8) |
| | 82- by 36-in | (2) |
| | Parachute: | |
| | Cargo: | |
| 1670-00-269-1107 | G-11A or | 1 |
| 1670-01-016-7841 | G-11B | 1 |
| | Cargo extraction: | |
| 1670-00-052-1548 | 15-ft or | 1 |
| 1670-01-063-3715 | 15-ft | 1 |
| | Platform, AD, type V, 8-ft: | 1 |
| | Bracket: | |
| 1670-01-162-2375 | Inside EFTA | (1) |
| 1670-01-162-2374 | Outside EFTA | (1) |
| 1670-01-162-2372 | Clevis assembly | (8) |
| 1670-01-162-2376 | Extraction bracket assembly | (1) |
| 1670-01-162-2381 | Tandem link | (4) |
| 5530-00-128-4981 | Plywood, 3/4-in: | |
| | 3 1/2- by 13-in | 2 |
| | 4- by 13-in | 1 |

Table 10-1. Equipment required for rigging the S-502 or S-250/G shelter with AN/GRC-142 communications equipment for low-velocity airdrop on the type V platform (continued)

| National Stock Number | Item | Quantity |
|--------------------------|---|-------------|
| 1670-01-097-8816 | Release, cargo parachute, M-1 | 1 |
| | Sling, cargo airdrop: | |
| | For deployment line: | |
| 1670-01-062-6304 | 9-ft (2-loop), type XXVI nylon webbing | 1 |
| | For suspension slings: | |
| 1670-01-062-6303 | 12-ft (2-loop), type XXVI nylon webbing | 4 |
| 7510-00-266-5016 | Tape, adhesive, 2-in | As required |
| 1670-00-937-0271 | Tiedown assembly, 15-ft | 15 |
| 8305-00-268-2411 | Webbing, cotton, type I, 1/4-in | As required |