

CHAPTER 6

RIGGING THE ADVANCED ANTITANK WEAPON SYSTEM-MEDIUM (JAVELIN) FOR LOW-VELOCITY AIRDROP

Section I

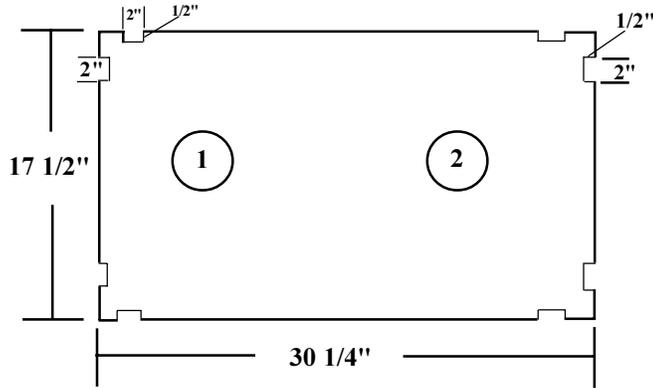
RIGGING TWO-ROUND A-7A DOOR BUNDLE

6-1. Description of Load

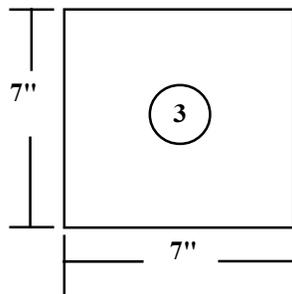
The Javelin Missile System is a man-portable antitank weapon system made up of a tactical round in a disposable launch tube and a reusable Command Launch Unit (CLU). The Command Launch Unit is not rigged with the tactical rounds. The Javelin can be airdropped as a door bundle in two-round and four-round configurations. As a door bundle, the Javelin can be dropped only from C-130, C-141, C-5 and C-17 aircrafts. The Javelin two-round A-7A door bundle has an approximate rigged weight of 146 pounds. It has an approximate height of 65 1/2 inches, a width of 17 1/2 inches and a length of 30 1/4 inches. The two-round bundle uses the T-10 cargo parachute.

6-2. Preparing Two-Round A-7A Door Bundle

Prepare the two-round A-7A door bundle according to FM 10-500-3/TO 13C7-1-11 and as shown in Figure 6-1.



- ① Cut two 17 1/2-inch by 30 1/4-inch pieces of 3/4-inch plywood with eight 1/2-inch by 2-inch cutouts. Pad and tape sharp edges of the cutouts.
- ② Cut two 17 1/2-inch by 30 1/4-inch pieces of honeycomb.



- ③ Cut two 7-inch by 7-inch pieces of honeycomb.

Figure 6-1. Two-round A-7A door bundle prepared

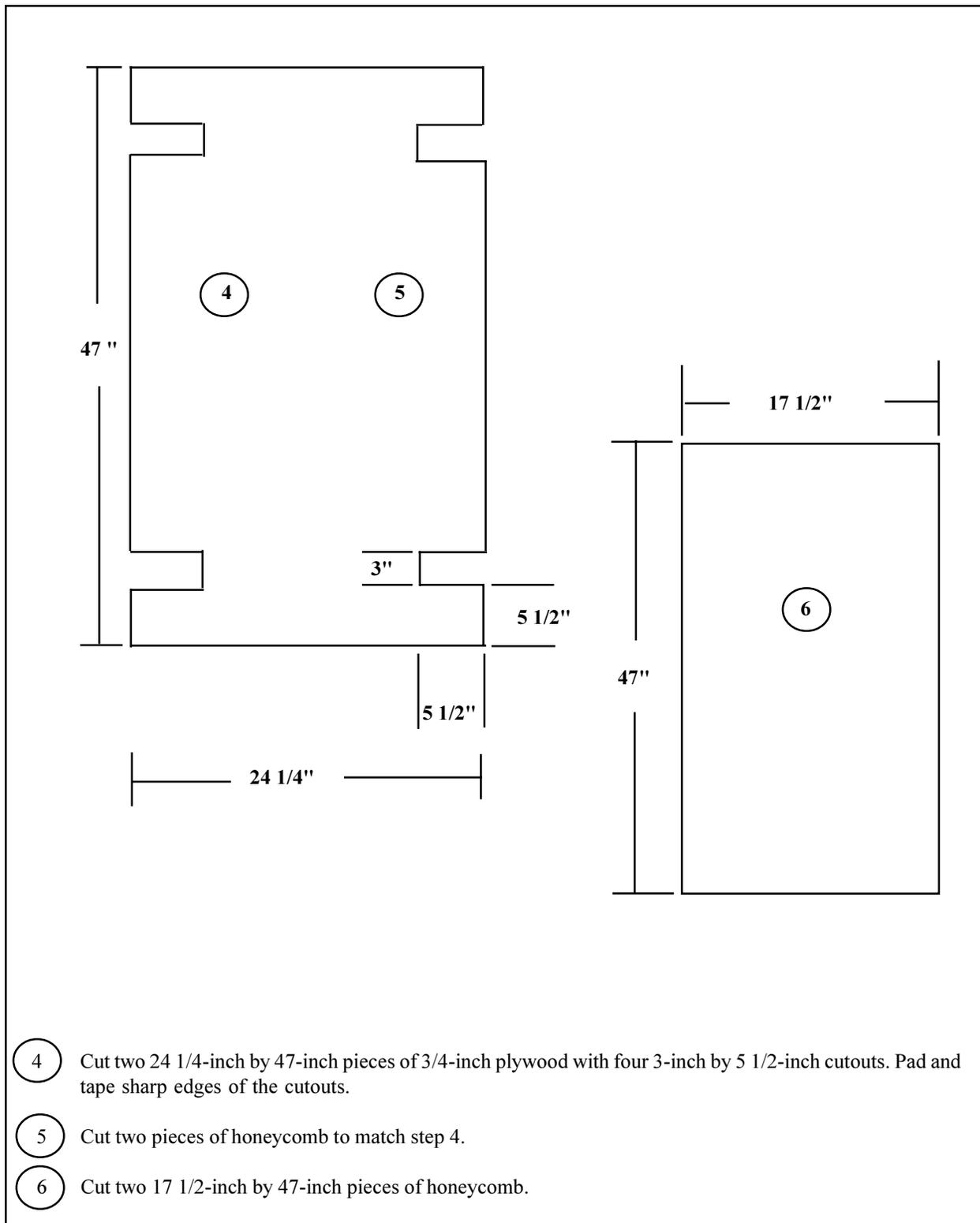
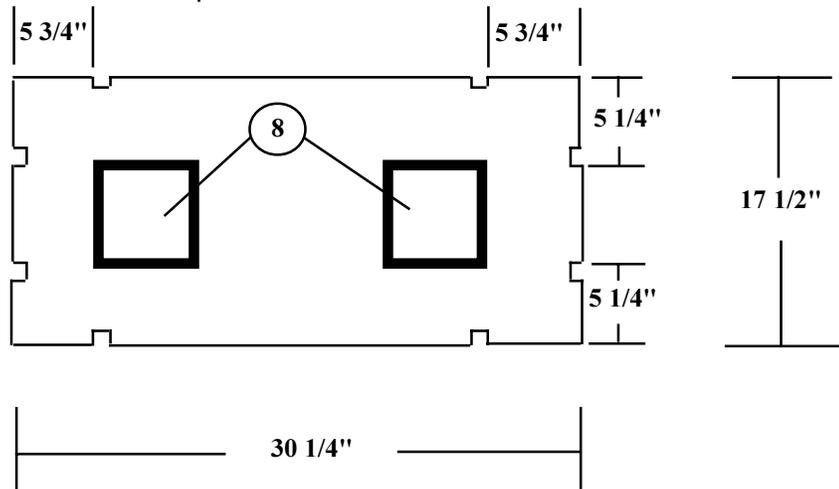
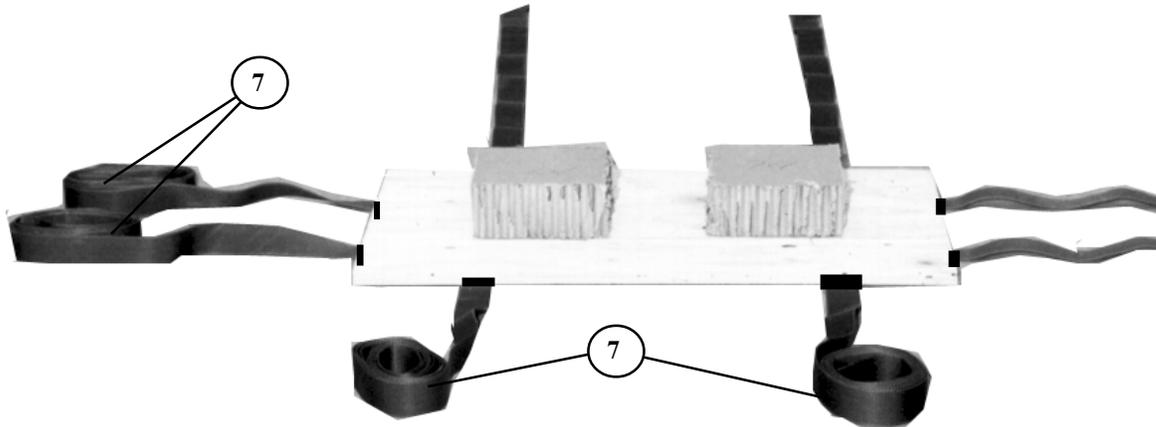


Figure 6-1. Two-round A-7A door bundle prepared (continued)



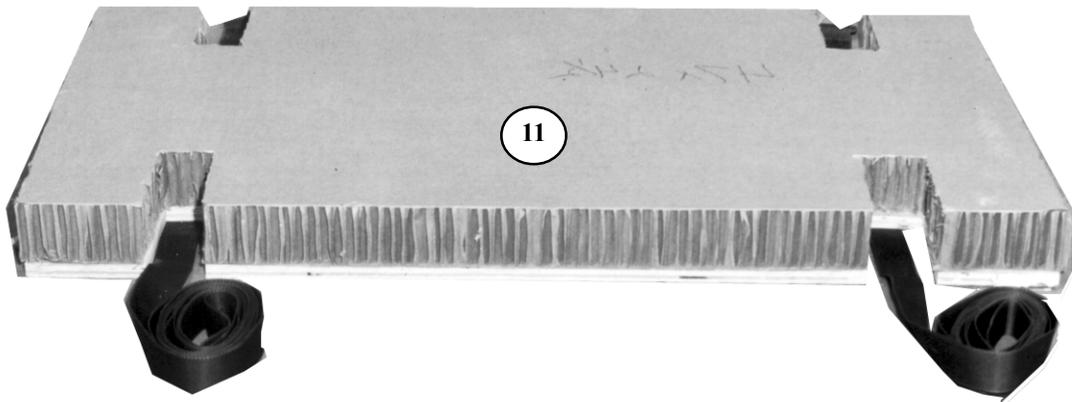
- ⑦ Position four A-7A straps under one of the 17 1/2-inch by 30 1/4-inch pieces of plywood. Position each strap approximately 5 inches from each edge of the plywood.
- ⑧ Position and glue the two 7-inch by 7-inch pieces of honeycomb on top of the plywood. Each piece should be 5 1/4 inches from the right and left edges of the plywood. Each piece should also be 5 3/4 inches from the forward edge and 5 3/4 inches from the rear edge of the plywood.

Figure 6-1. Two-round A-7A door bundle prepared (continued)

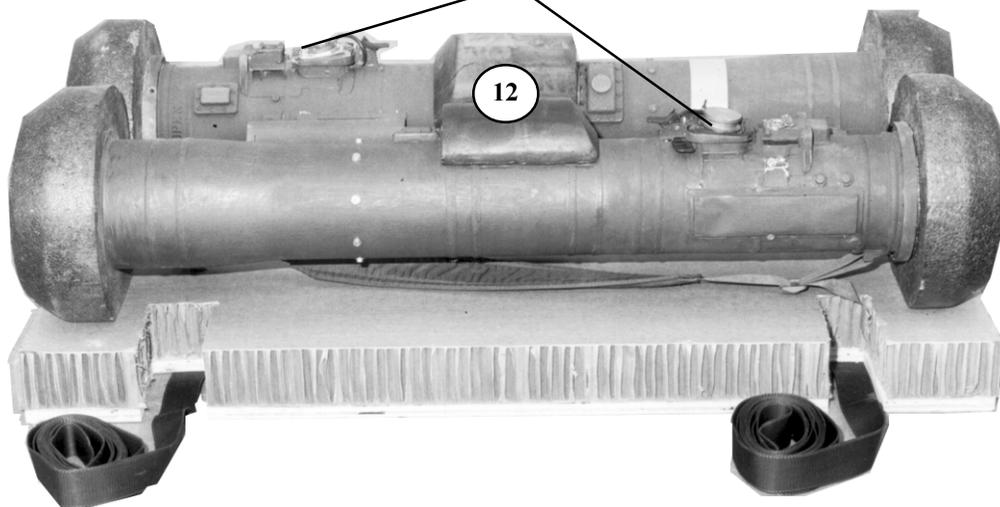


- 9 Position and glue one of the 17 1/2-inch by 30 1/4-inch pieces of honeycomb centered on the plywood in step 8.
- 10 Position two A-7A straps, one in each set of cutouts on the 24 1/4-inch by 47-inch piece of plywood.

Figure 6-1. Two-round A-7A door bundle prepared (continued)

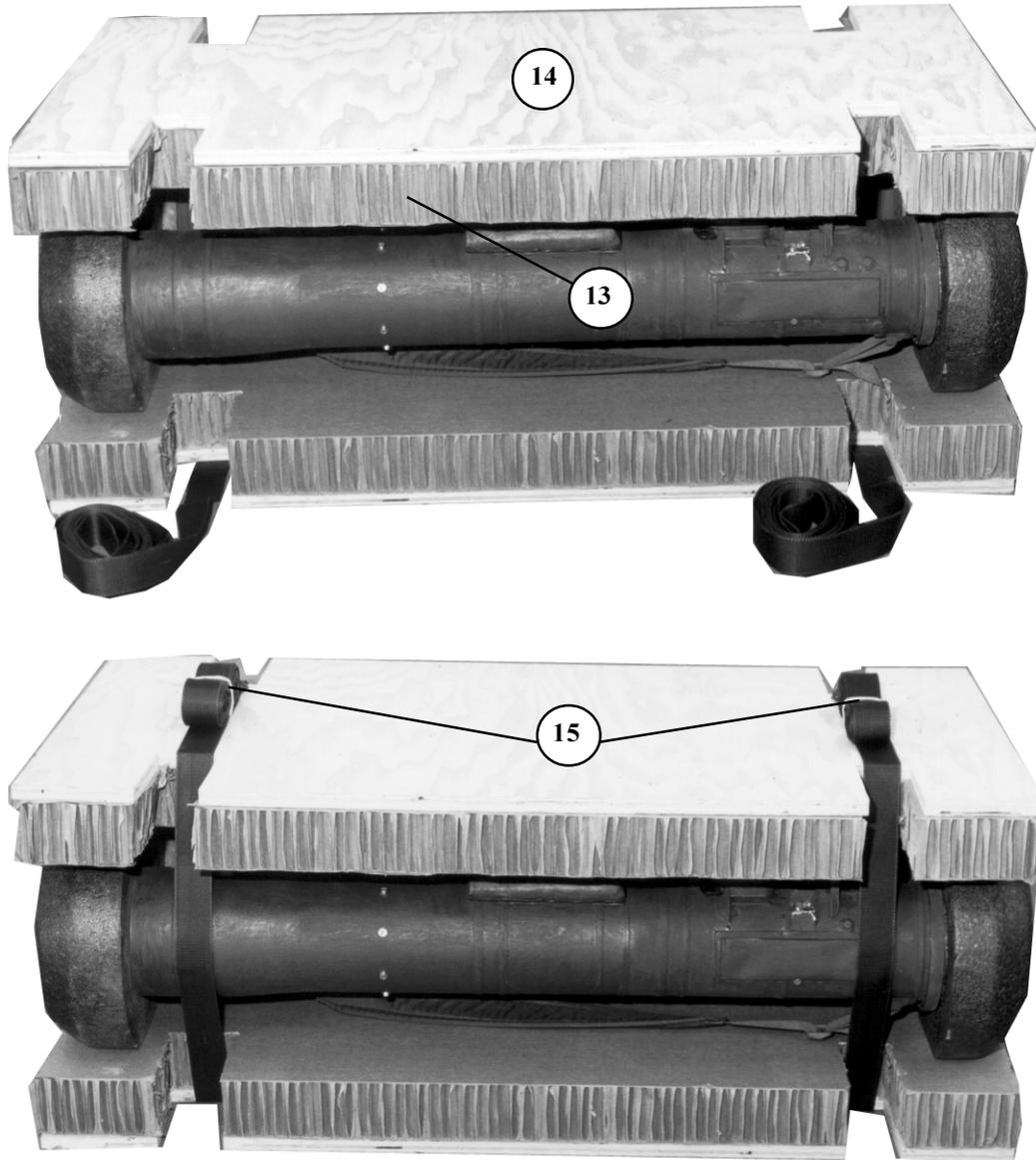


COMMAND
LAUNCH
UNIT CONNECTORS



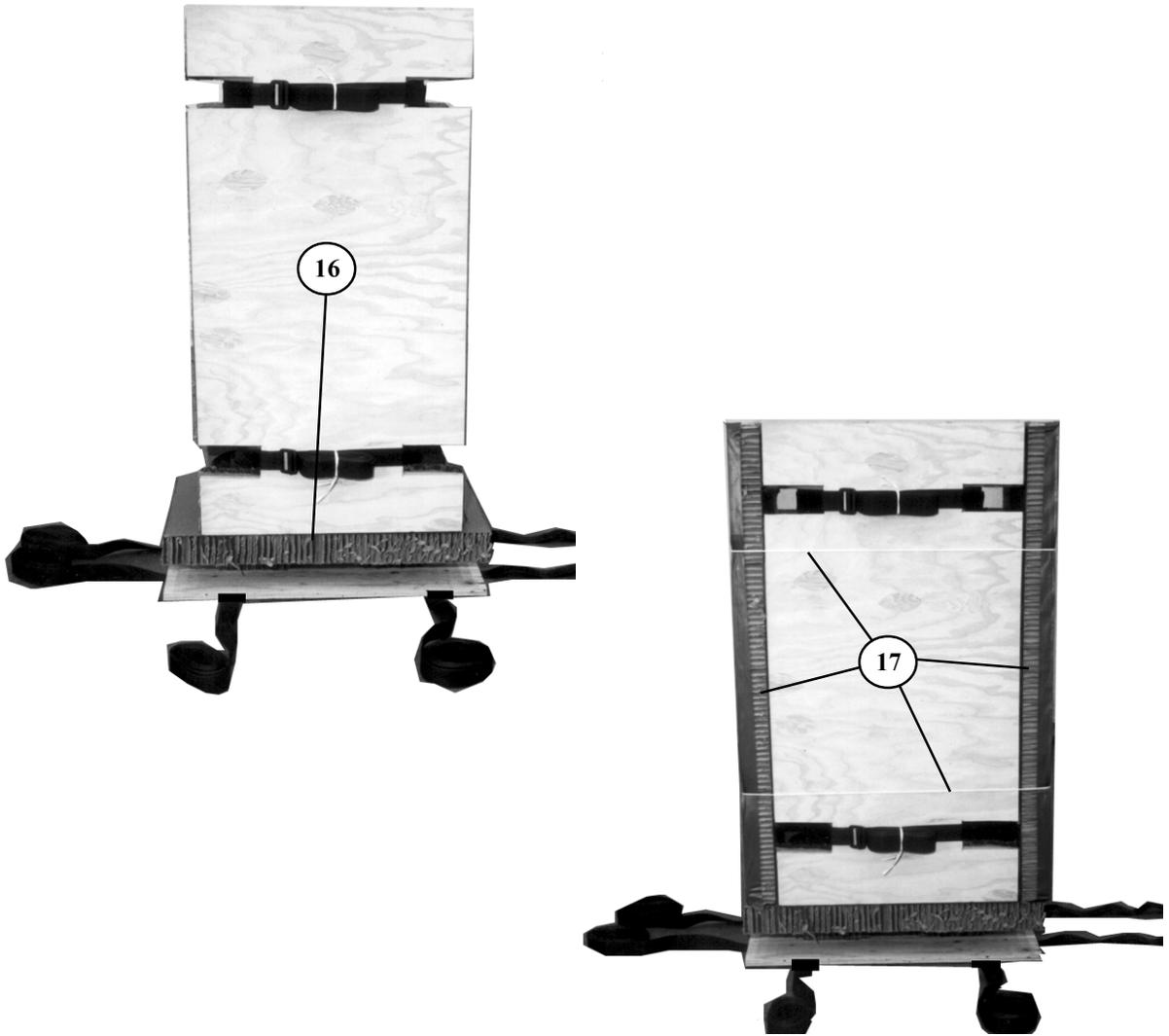
- 11 Position and glue one of the matching pieces of honeycomb on the top of the plywood in step 10.
- 12 With the Command Launch Unit connectors on opposite ends, position two Javelin rounds on the honeycomb. Lay the rounds with the flat side of the protective foam down making sure the Battery Coolant Units (BCU) face inward.

Figure 6-1. Two-round A-7A door bundle prepared (continued)



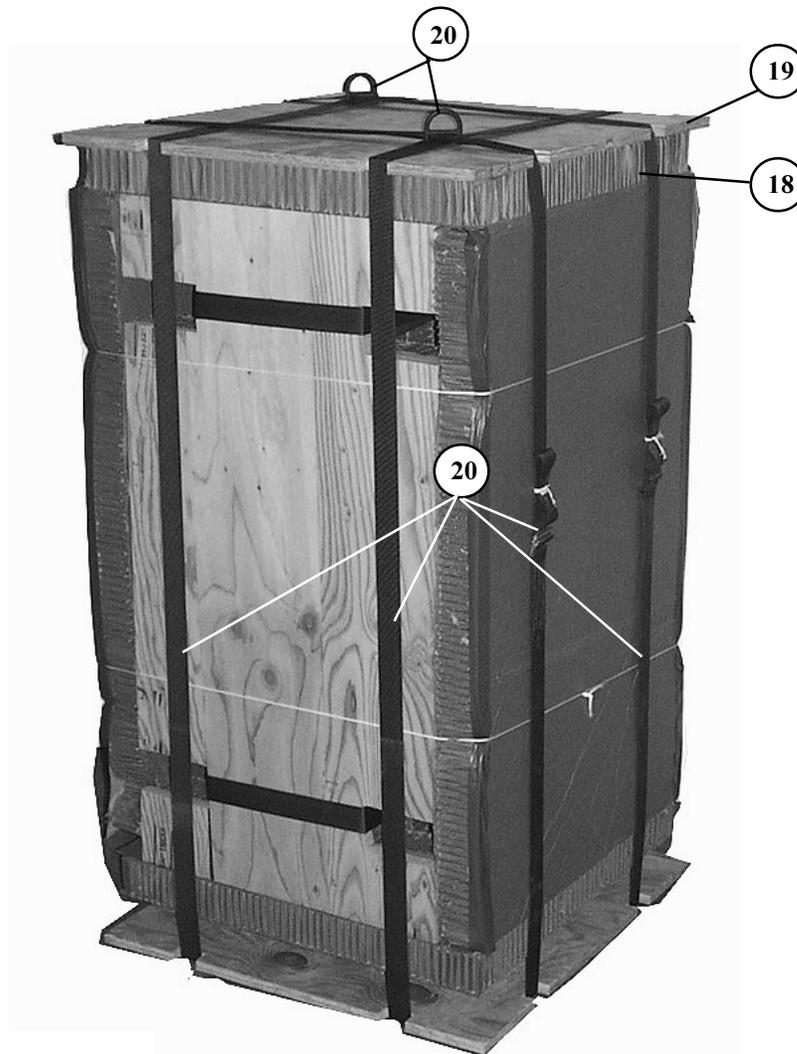
- 13 Position the other piece of 24 1/4 inch by 47 inch honeycomb with the cutouts evenly on top of the launch tubes.
- 14 Position and glue the matching piece of plywood on top of the honeycomb.
- 15 Secure the A-7A straps. Fold and secure excess straps with one turn single type I, 1/4-inch cotton webbing.

Figure 6-1. Two-round A-7A door bundle prepared (continued)



- ① 16 Using the materials from steps 7 through 9 as a base, position the materials from steps 10 through 15 on one end centered on the base.
- ① 17 Position one of the 17 1/2-inch by 47-inch pieces of honeycomb flush with the front of the load and one flush with the rear of the load. Tape the edges of the honeycomb and secure it in place with two lengths of type III nylon cord.

Figure 6-1. Two round A-7A door bundle prepared (continued)



- ⑱ Position one 17 1/2-inch by 30 1/4-inch piece of honeycomb on top of the load.
- ⑲ Position and glue one 17 1/2-inch by 30 1/4-inch piece of plywood on the honeycomb.
- ⑳ Position two D-rings on top of the load. Place one in the left front corner and the other in the right rear corner of the load. Secure in place by passing the running ends of two of the A-7A straps in those corners through the D-rings. Secure all the A-7A straps.

Figure 6-1. Two-round A-7A door bundle prepared (continued)

6-3. Attaching Parachute to Load

Attach a T-10 cargo parachute as shown in Figure 6-2.

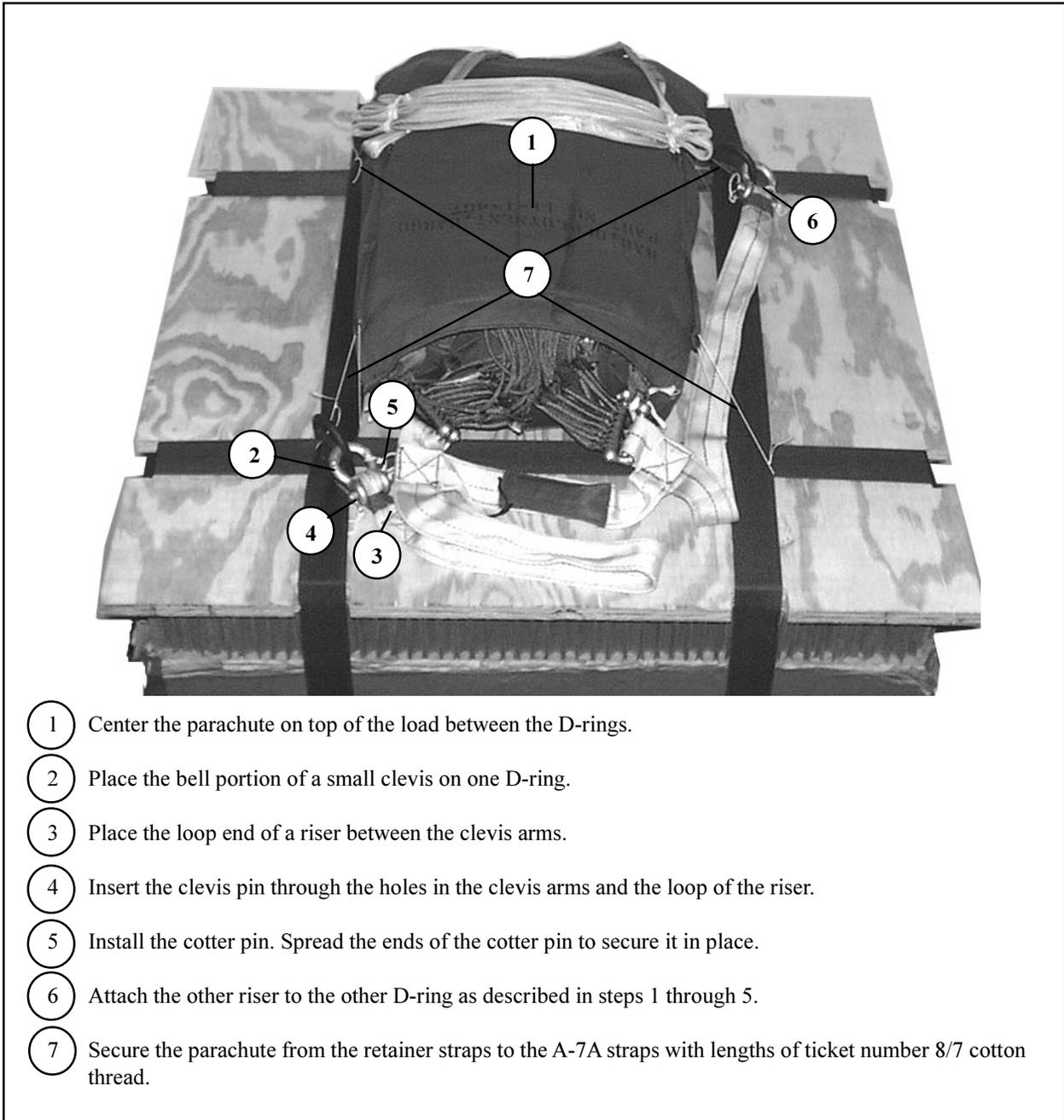


Figure 6-2. Parachute attached to load

6-4. Marking Rigged Load

Mark the rigged load according to FM 10-500-2/TO 13C7-1-5 and as shown in Figure 6-3. Complete Shipper's Declaration for Dangerous Goods and affix to load.

6-5. Equipment Required

Use the equipment listed in Table 6-1 to rig this load.

CAUTION
Mark the load "Door Bundle Only, Do Not Drop From AFT Ramp"



| RIGGED LOAD DATA | |
|-------------------------|---------------|
| Rigged Weight | 146 pounds |
| Height | 65 1/2 inches |
| Width | 17 1/2 inches |
| Length | 30 1/4 inches |
| Parachute | T-10 cargo |

Figure 6-3. Javelin two-round A-7A door bundle rigged

Table 6-1. Equipment required for rigging the Javelin two-round A-7A door bundle for low-velocity airdrop.

| National Stock Number | Item | Quantity |
|-----------------------|--------------------------------------|-------------|
| 8040-00-273-8713 | Adhesive, paste, 1-gal | As required |
| 4020-00-240-2146 | Cord, nylon, type III, 550-lb | As required |
| 1670-00-753-3928 | Pad, energy-dissipating, honeycomb, | 3 sheets |
| No NSN | Parachute: T-10 cargo | 1 |
| 5530-00-128-4981 | Plywood, 3/4- by 48- by 96-in | 2 sheets |
| 1670-00-251-1153 | Sling assembly, cargo, airdrop, A-7A | 6 |
| 8310-01-102-4478 | Thread, cotton, ticket 8/7 | As required |
| 8305-00-268-2411 | Webbing, cotton, 1/4-in, 80-lb | As required |

Section II

RIGGING FOUR-ROUND A-7A DOOR BUNDLE

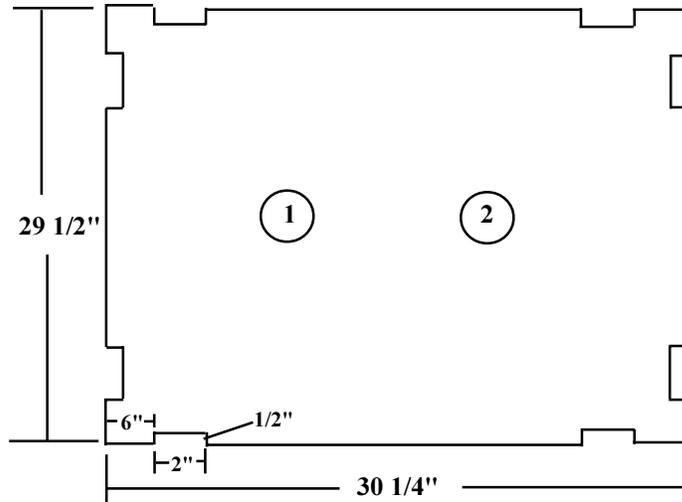
6-6. Description of Load

The Javelin Missile System is a man-portable antitank weapon system made up of a tactical round in a disposable launch tube and a reusable Command Launch Unit. The Command Launch Unit is not rigged with the tactical rounds. The Javelin four-round A-7A door bundle has an approximate rigged weight of 271 pounds. It has a height of 57 1/2 inches (G14) and 65 1/2 inches (T-10), a width of 37 1/2 inches and a length of 44 1/2 inches. The four-round bundle uses the G-14 or T-10 cargo parachute.

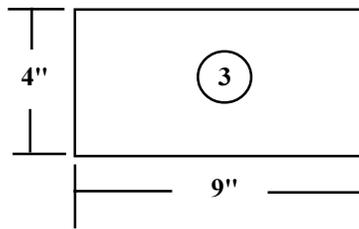
6-7. Preparing Four-Round A-7A Door Bundle

Prepare the four-round A-7A door bundle according to FM 10-500-3/TO 13C7-1-11 and as shown in Figure 6-4.

Note: This drawing is not to scale.



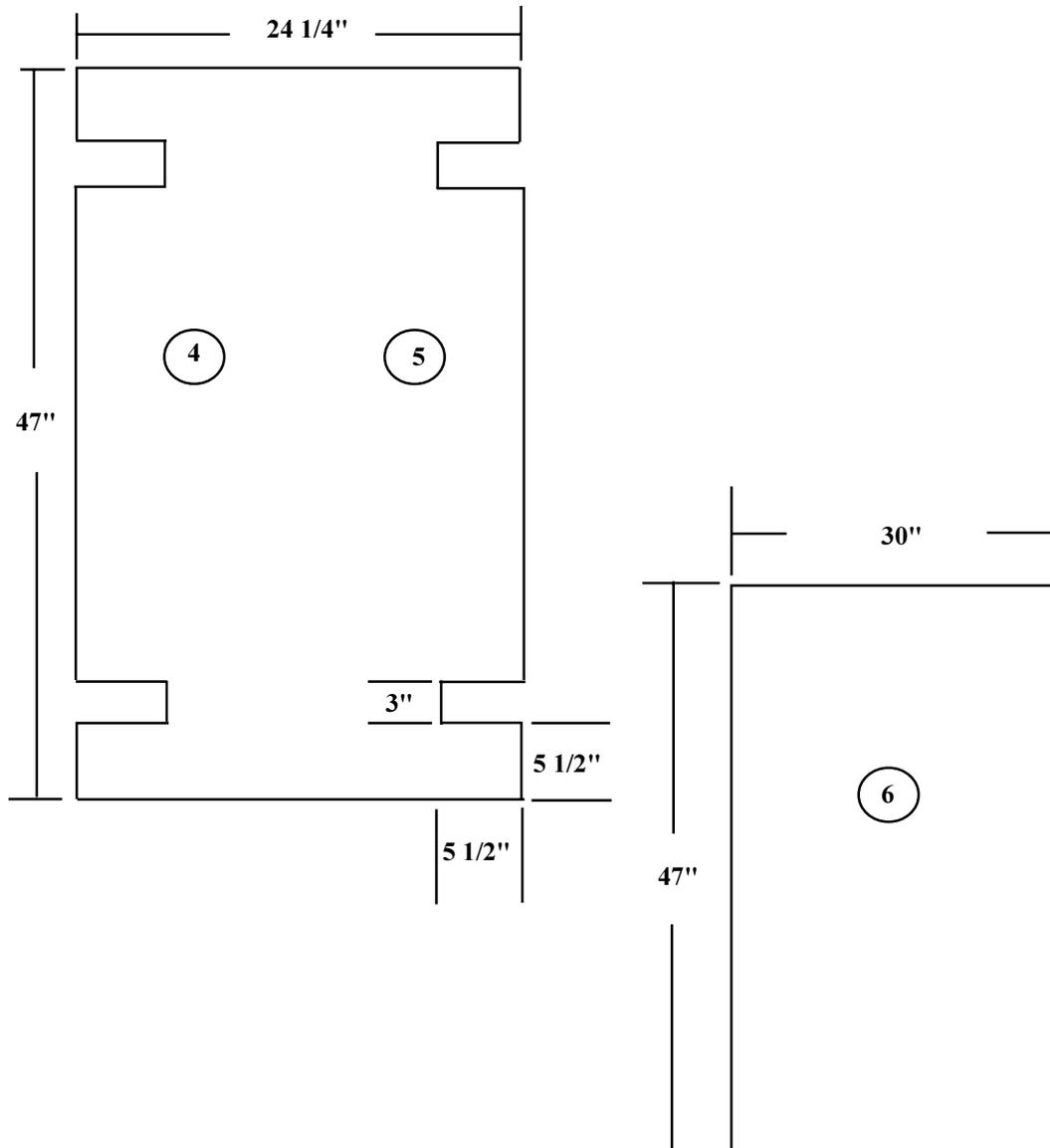
- ① Cut two 29 1/2-inch by 30 1/4-inch pieces of 3/4-inch plywood with eight 1/2-inch by 2-inch cutouts. Pad and tape the sharp edges of the cutouts.
- ② Cut two 29 1/2-inch by 30 1/4-inch pieces of honeycomb.



- ③ Cut four 4-inch by 9-inch pieces of honeycomb.

Figure 6-4. Four-round A-7A door bundle prepared

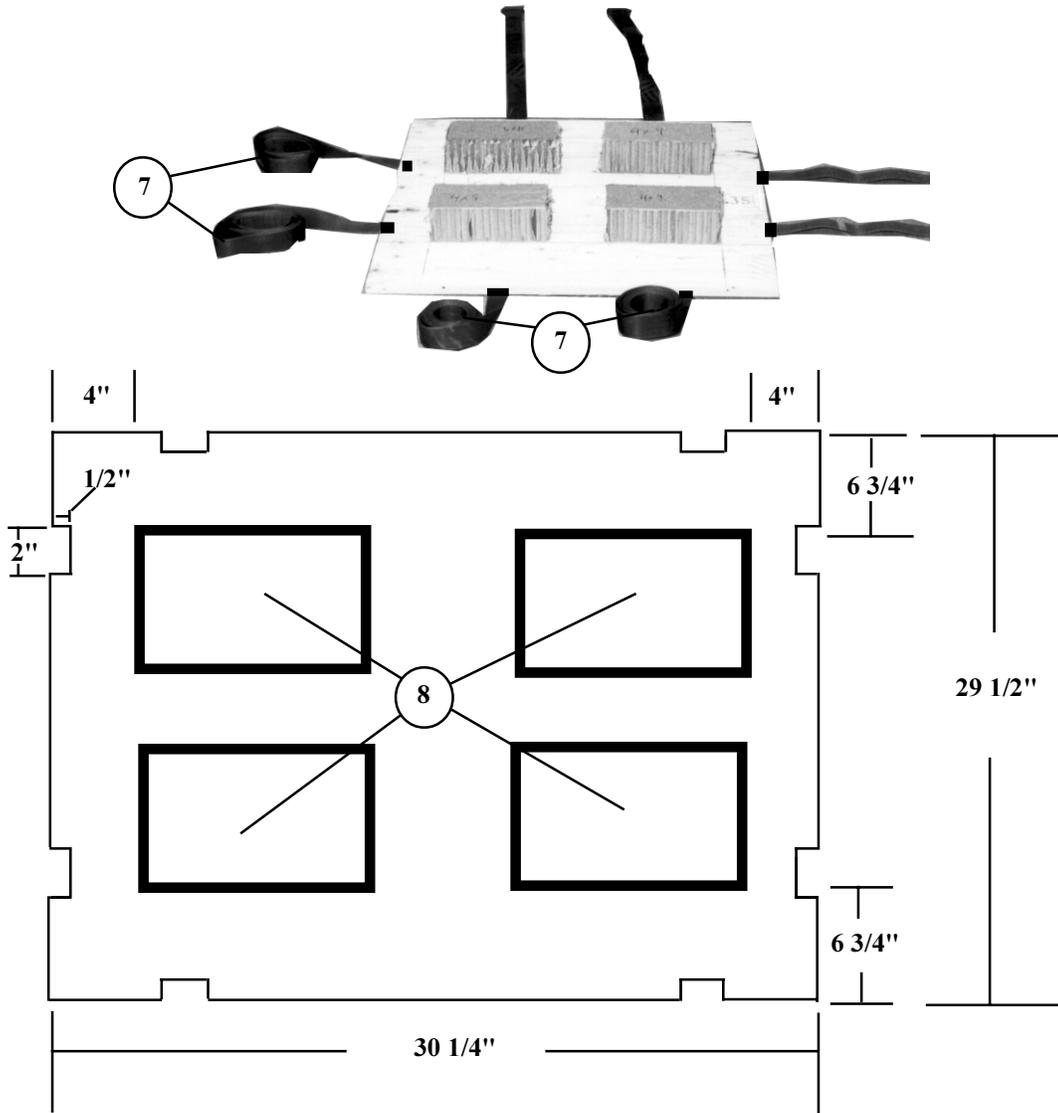
Note: This drawing is not to scale.



- ④ Cut three 24 1/4-inch by 47-inch pieces of 3/4-inch plywood with four 3-inch by 5 1/2-inch cutouts. Pad and tape the sharp edges of the cutouts.
- ⑤ Cut two pieces of honeycomb to match step 4.
- ⑥ Cut two 30-inch by 47-inch pieces of honeycomb.

Figure 6-4. Four-round A-7A door bundle prepared (continued)

Note: This drawing is not to scale.



- 7 Position four A-7A straps under one of the 29 1/2-inch by 30 1/4-inch pieces of plywood. Position each strap in each set of cutouts of the plywood.
- 8 Position and glue the four 4-inch by 9-inch pieces of honeycomb on top of the plywood. The pieces on the left side should be 6 3/4 inches from the left edge of the plywood and the right side pieces should be 6 3/4 inches from the right edge of the plywood. The forward pieces should be 4 inches from the forward edge of the plywood and the rear pieces should be 4 inches from the rear edge of the plywood.

Figure 6-4. Four-round A-7A door bundle prepared (continued)

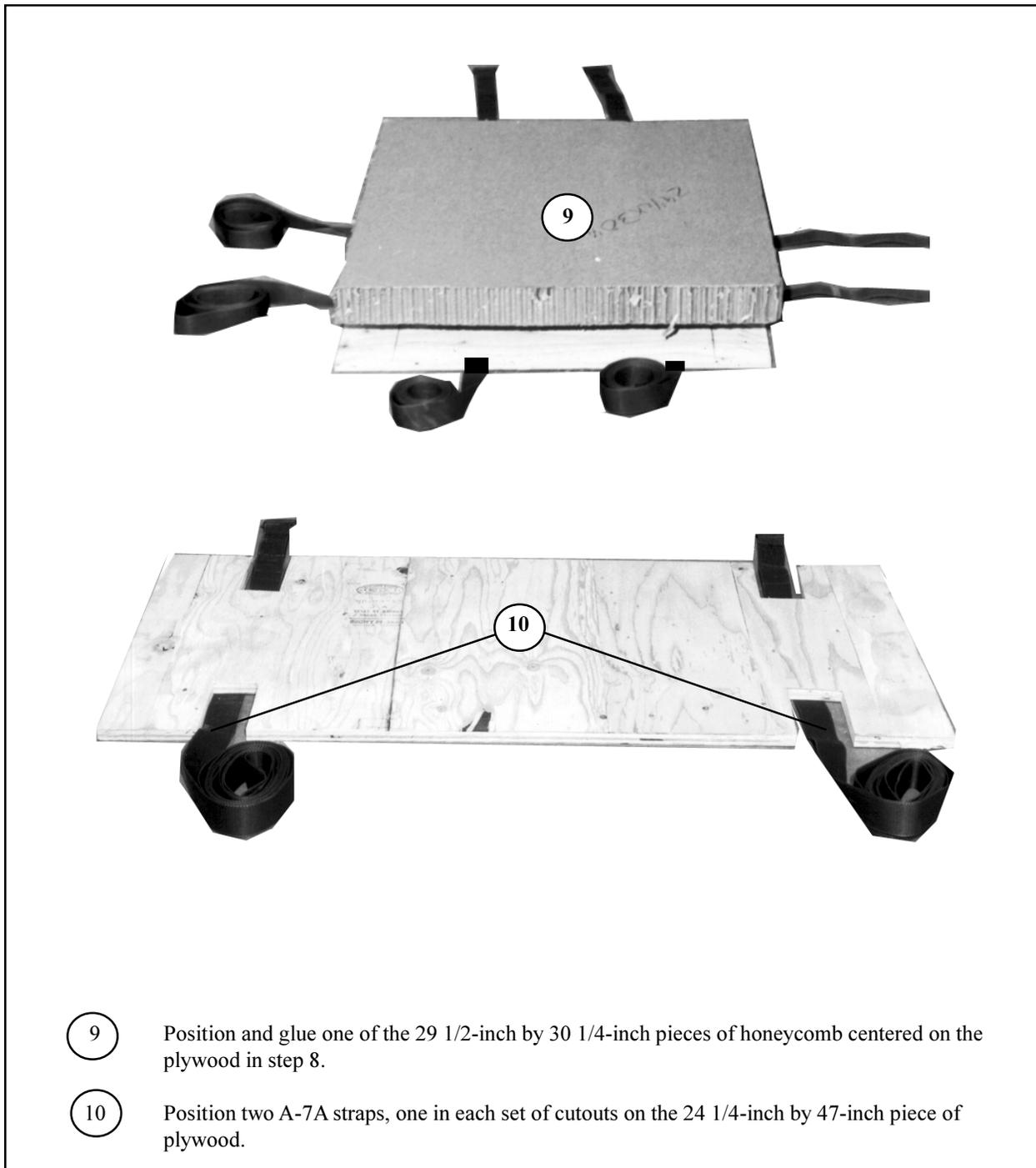


Figure 6-4. Four-round A-7A door bundle prepared (continued)

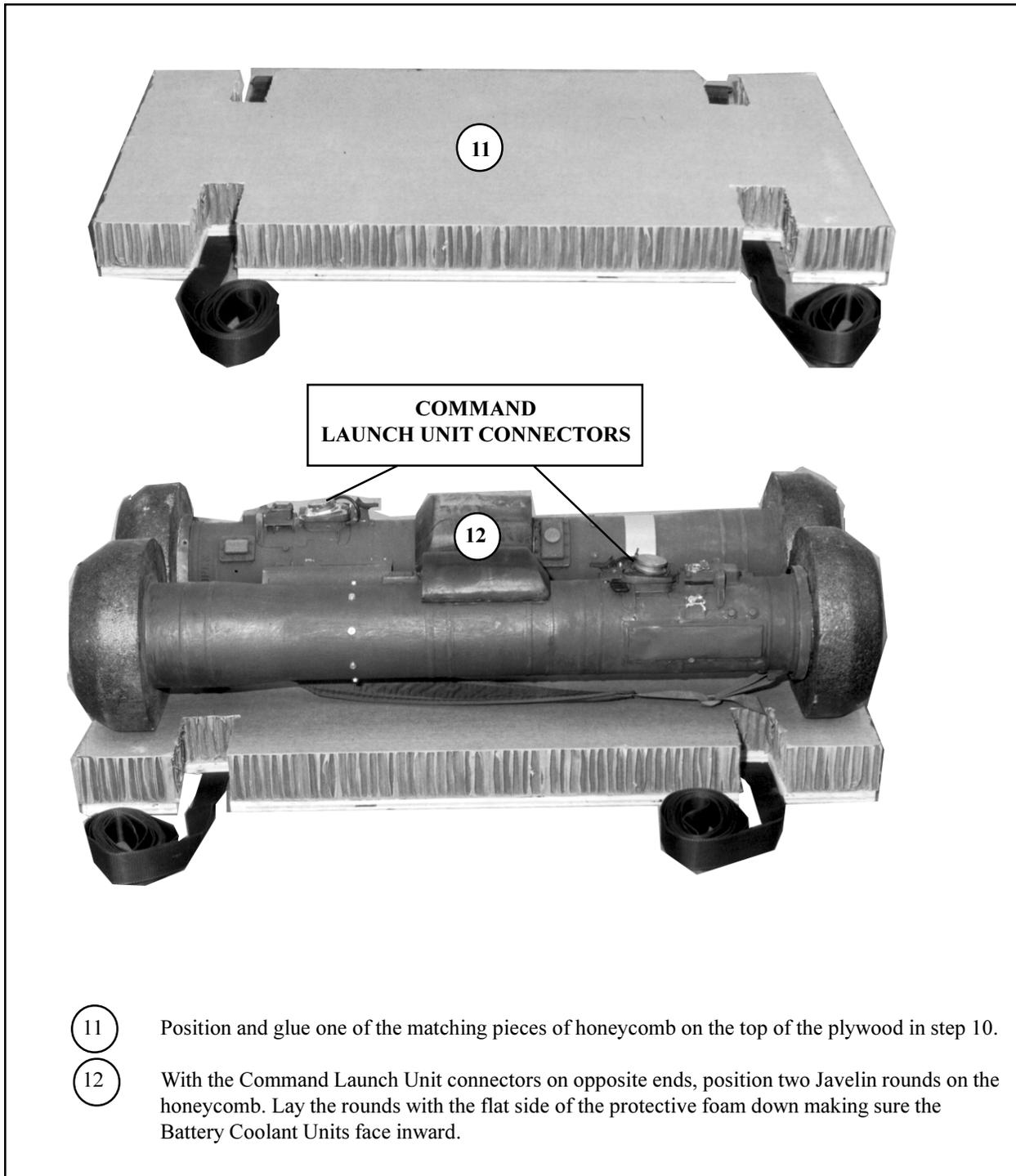


Figure 6-4. Four-round A-7A door bundle prepared (continued)

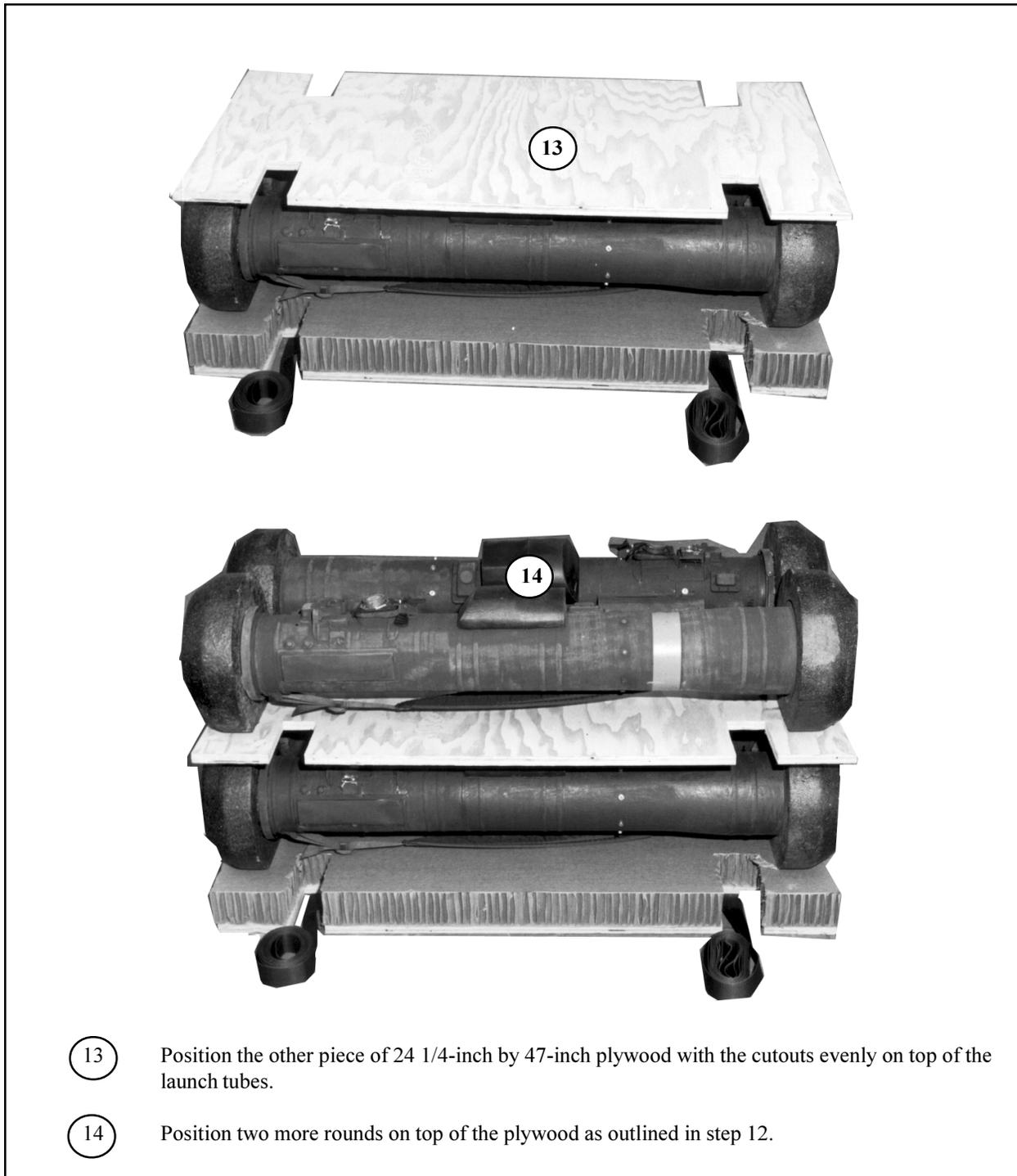


Figure 6-4. Four-round A-7A door bundle prepared (continued)

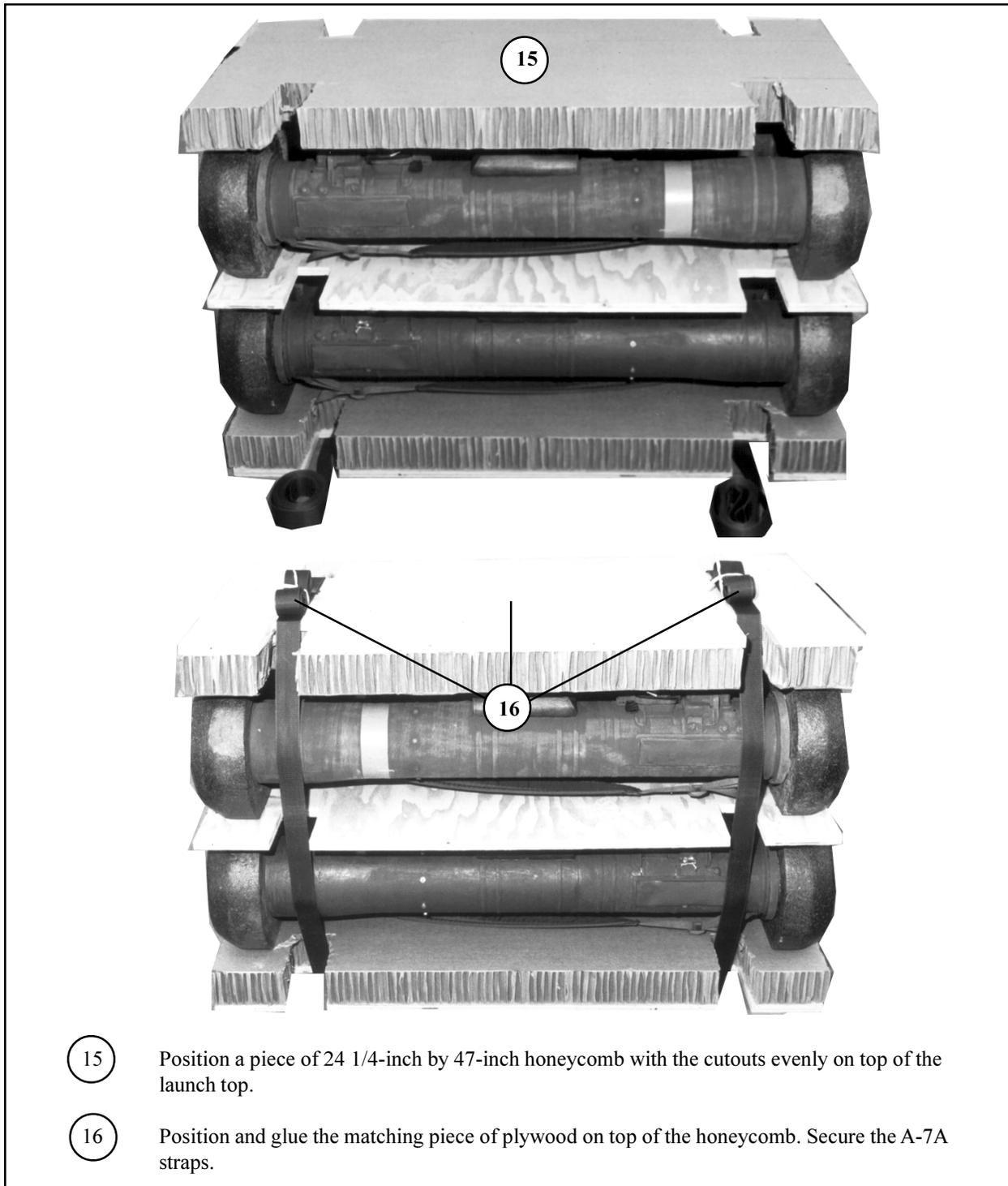


Figure 6-4. Four-round A-7A door bundle prepared (continued)

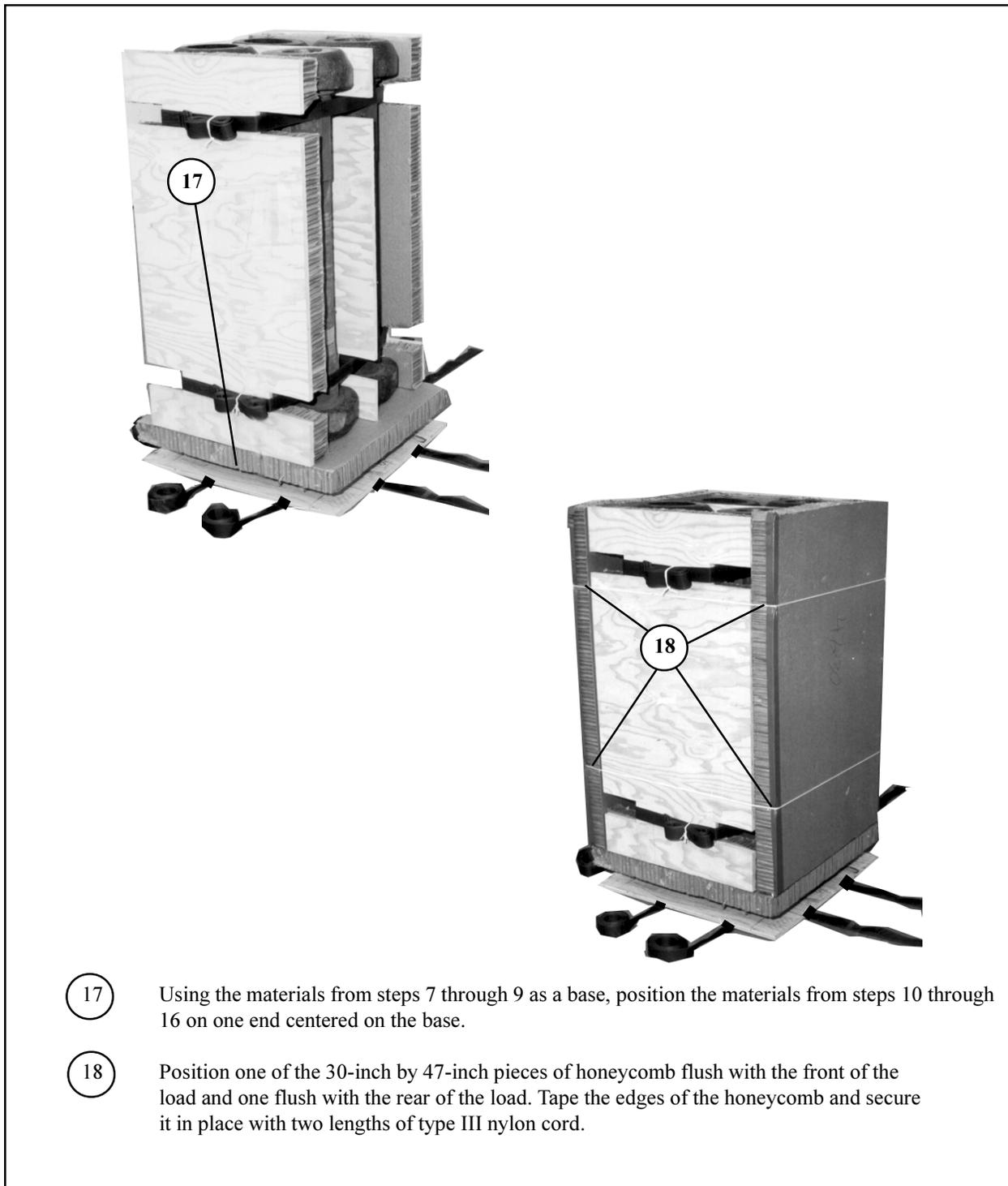


Figure 6-4. Four-round A-7A door bundle prepared (continued)

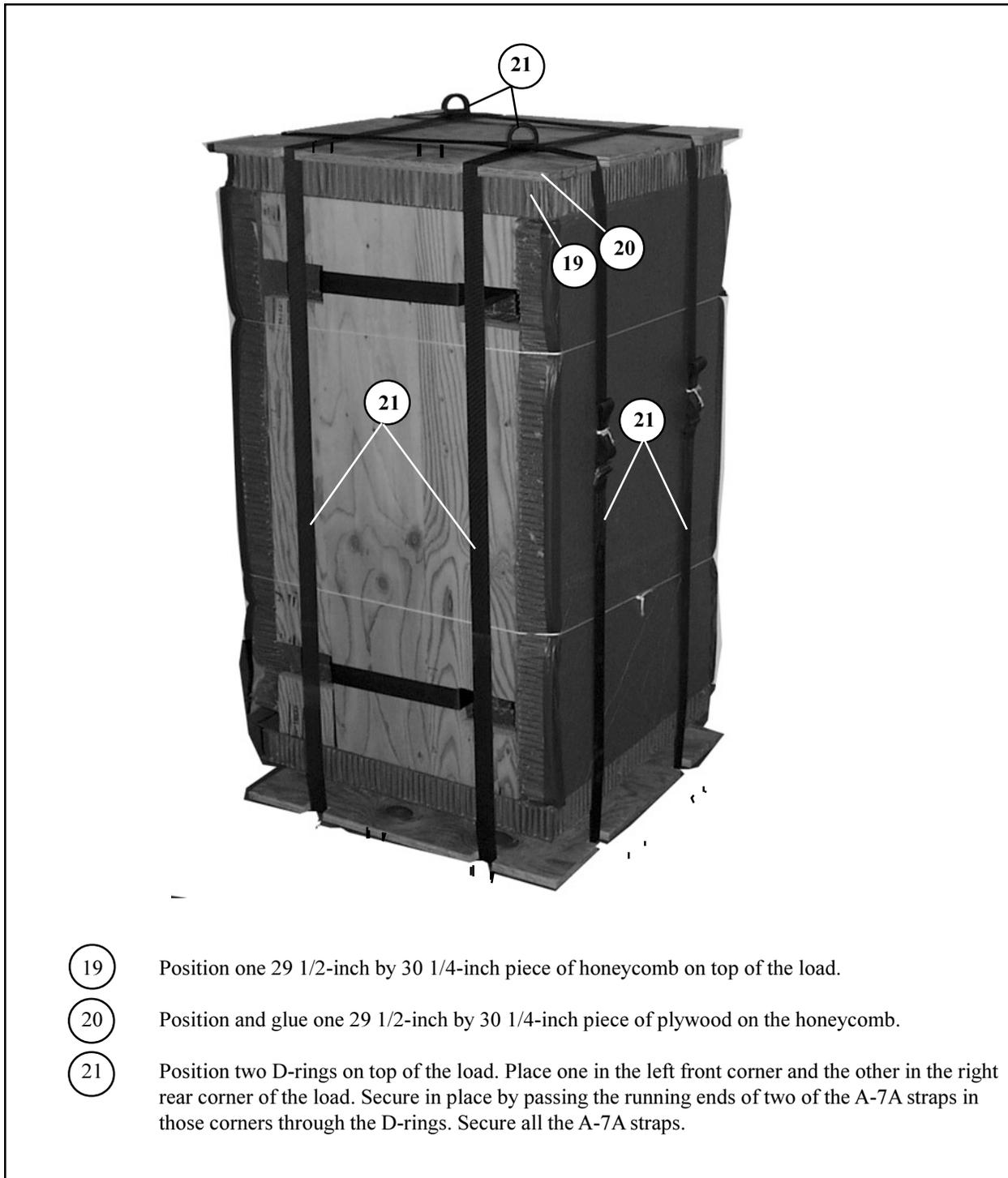


Figure 6-4. Four-round A-7A door bundle prepared (continued)

6-9. Marking Rigged Load

Mark the rigged load according to FM 10-500-2/TO 13C7-1-5 and as shown in Figure 6-6. Complete Shipper's Declaration for Dangerous Goods and affix to load.

6-10. Equipment Required

Use the equipment listed in Table 6-2 to rig the load.

CAUTION
Mark the load "Door Bundle Only, Do Not Drop From AFT Ramp"



RIGGED LOAD DATA

| | |
|---------------|--|
| Rigged Weight | 271 pounds |
| Height | 57 1/2 inches (G-14) 65 1/2 inches (T-10) |
| Width | 37 1/2 inches |
| Length | 44 1/2 inches |
| Parachute | T-10 or G-14 cargo parachute |

Figure 6-6. Javelin four-round A-7A door bundle rigged (G-14 shown)

Table 6-2. Equipment required for rigging the Javelin four-round A-7A door bundle for a low-velocity airdrop.

| National Stock Number | Item | Quantity |
|-----------------------|--|-------------|
| 8040-00-273-8713 | Adhesive, paste, 1-gal | As required |
| 4020-00-240-2146 | Cord, nylon, type III, 550-lb | As required |
| 1670-00-753-3928 | Pad, energy-dissipating, honeycomb, | 3 sheets |
| 1670-00-999-2658 | Parachute: G-14, cargo or | 1 |
| No NSN | Canopy, 35-ft diam., T-10 modified for cargo | 1 |
| 5530-00-128-4981 | Plywood, 3/4- by 48- by 96-in | 2 sheets |
| 1670-00-251-1153 | Sling assembly, cargo, airdrop, A-7A | 6 |
| 5340-00-360-0560 | Suspension web | 2 |
| 8310-01-102-4478 | Thread, cotton, ticket number 8/7 | As required |
| 8305-00-268-2411 | Webbing, cotton, 1/4-in, 80-lb | As required |

Section III

RIGGING NINE-ROUND CDS RIGGED IN AN A-22 STRETCH CONTAINER

6-11. Description of Load

The Javelin Missile System is a man-portable antitank weapon system made up of a tactical round in a disposable launch tube and a reusable command launch unit. The command launch unit is not rigged with the launch tubes. The Javelin nine-round Javelin missile system rigged in an A-22 stretch container has an approximate rigged weight of 810 pounds. It has a height of 65 1/2 inches, a width of 48 inches and a length of 60 inches. The nine round Javelin missile system rigged in an A-22 stretch container uses the G-12E cargo parachute.

6-12. Preparing Skid Board, Ties and Positioning Honeycomb

Prepare the skid board, ties and position the honeycomb according to FM 10-500-3/TO 13C7-1-11 and as shown in Figure 6-7.

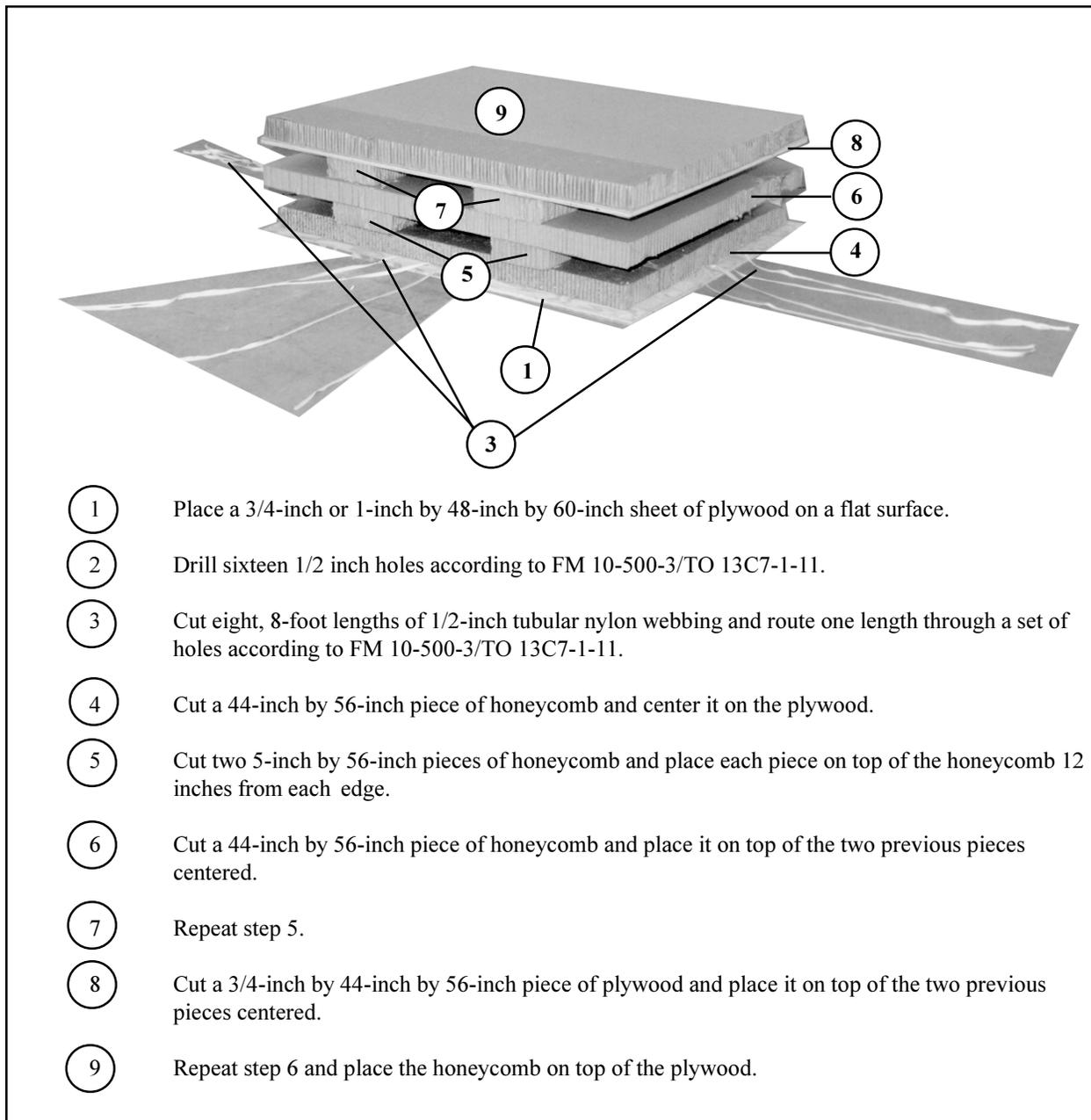


Figure 6-7. Skidboard, ties and honeycomb prepared and positioned

6-13. Positioning A-22 Sling Assemblies

Position two A-22 sling assemblies on the load according to FM 10-500-3/TO 13C7-1-11 and as shown in Figure 6-8.

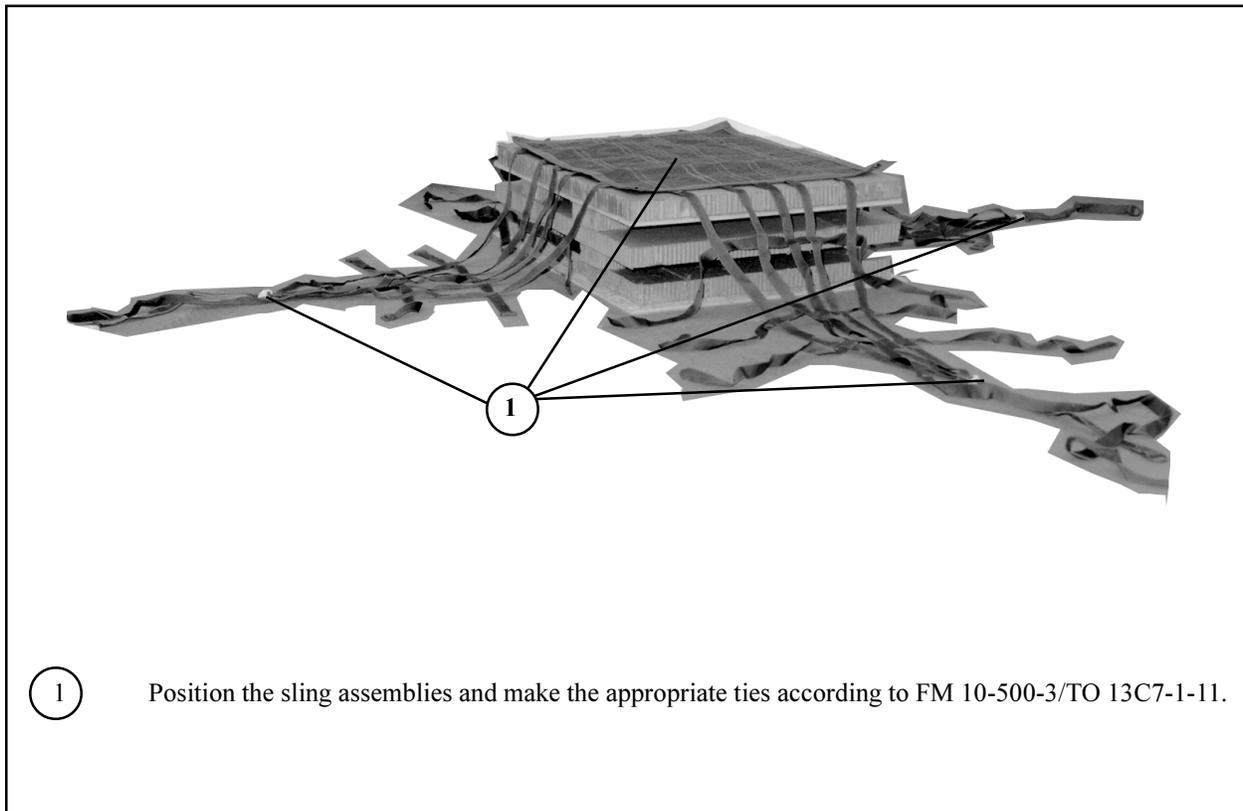


Figure 6-8. A-22 sling assemblies positioned

6-14. Positioning Covers and A-7A Straps

Position two covers and two A-7A straps on top of the sling assemblies as shown in Figure 6-9.

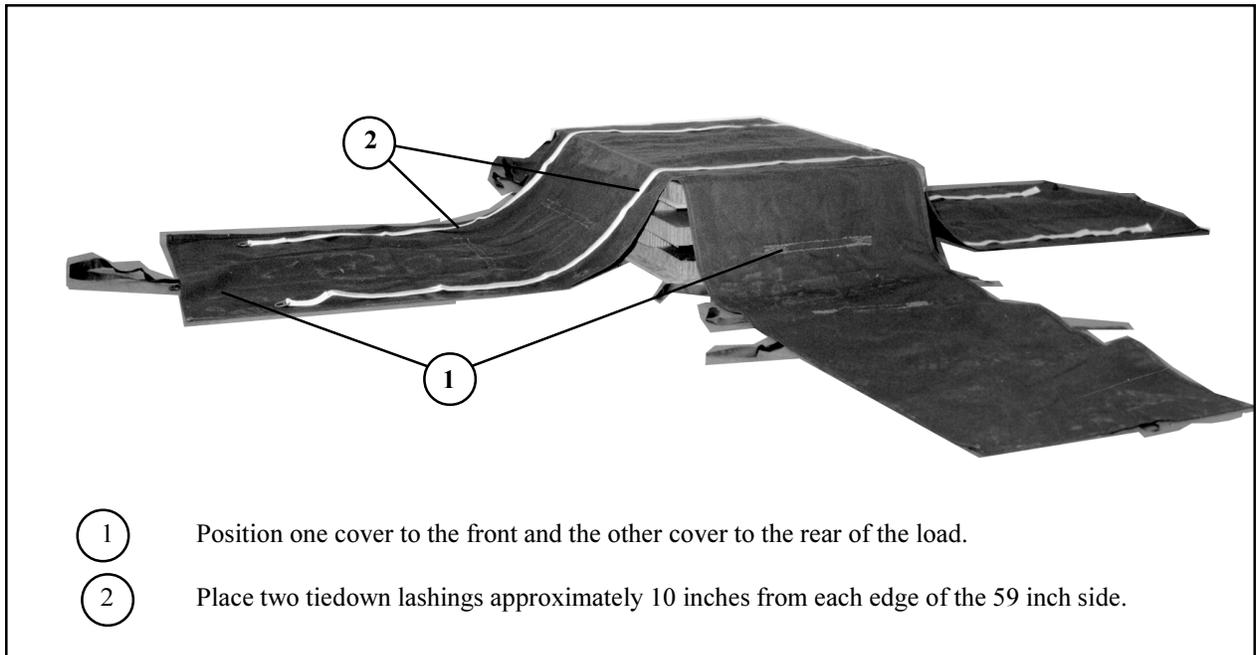


Figure 6-9. Covers and A-7A straps positioned

6-15. Positioning and Securing Javelin Missiles

Position nine Javelin missiles and secure them as shown in Figure 6-10.

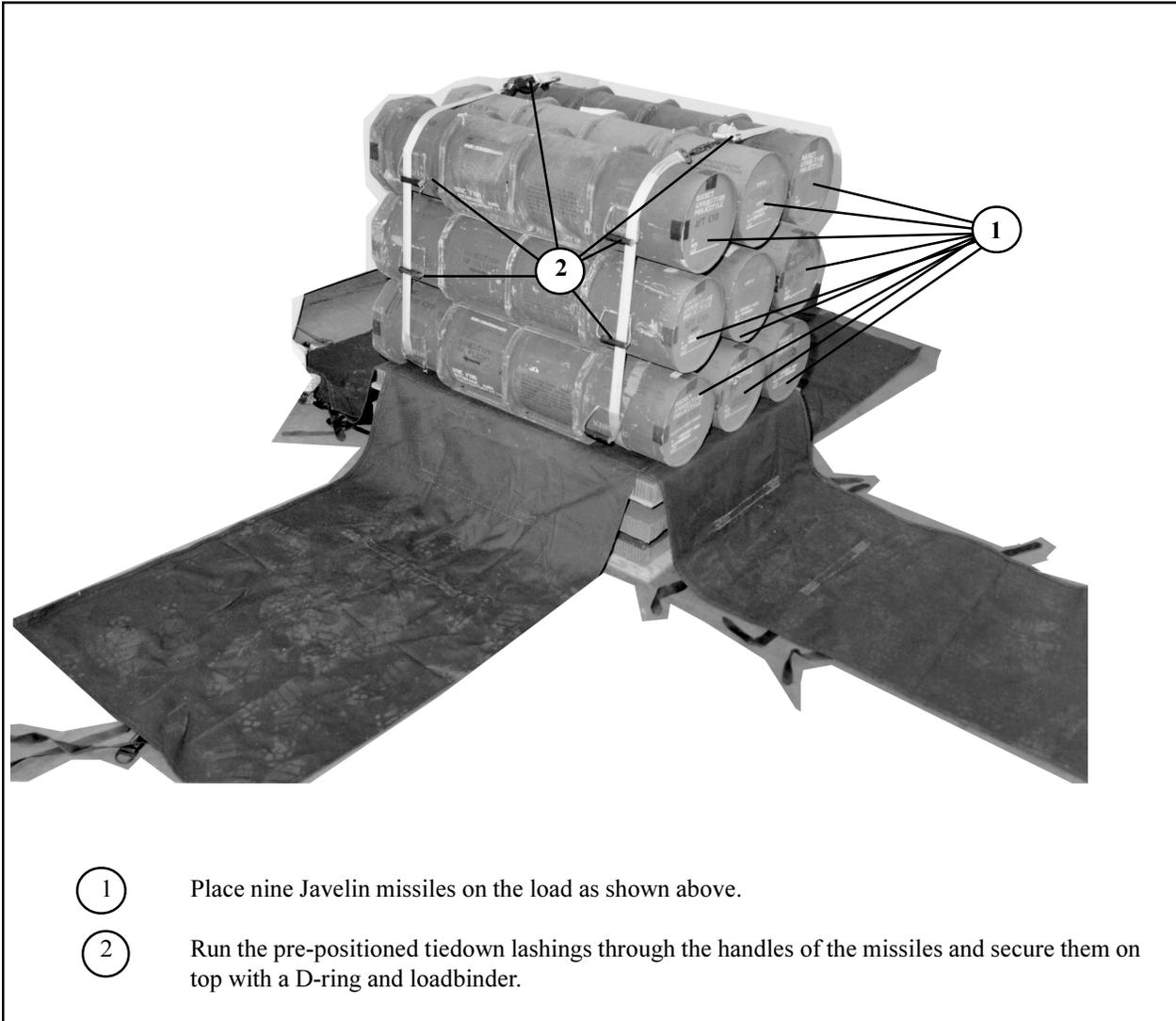


Figure 6-10. Javelin missiles positioned and secured

6-16. Securing the Lateral Straps and Installing Suspension Slings

Secure the lateral straps according to FM 10-500-3/TO 13C7-1-11 and install the suspension slings as shown in Figure 6-11.

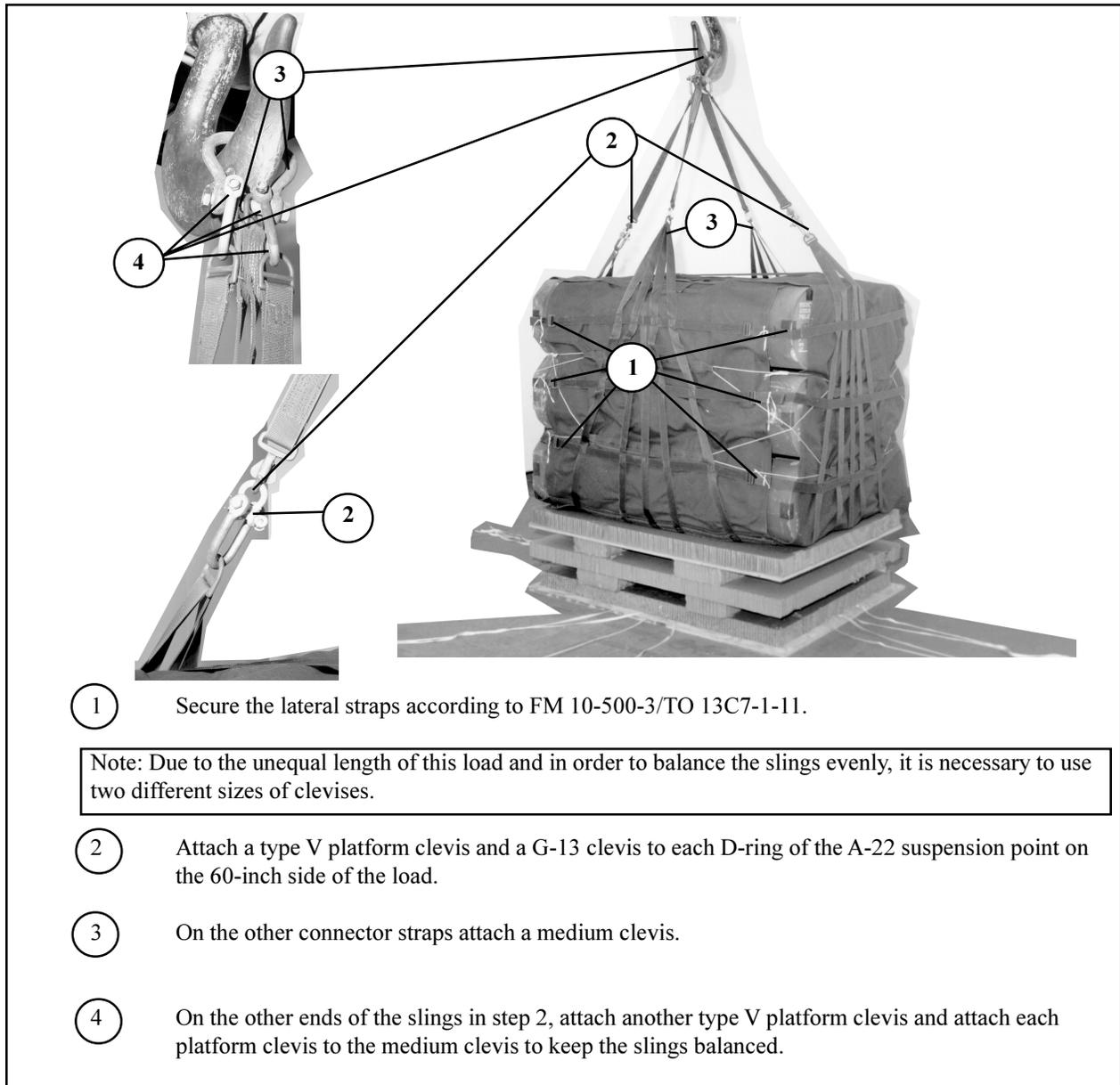


Figure 6-11. Lateral straps secured and suspension slings installed

6-17. Securing Skid Board Ties and Installing Parachute

Secure the skid board ties according to FM 10-500-3/TO 13C7-1-11 and install a G-12E cargo parachute as shown in Figure 6-12.

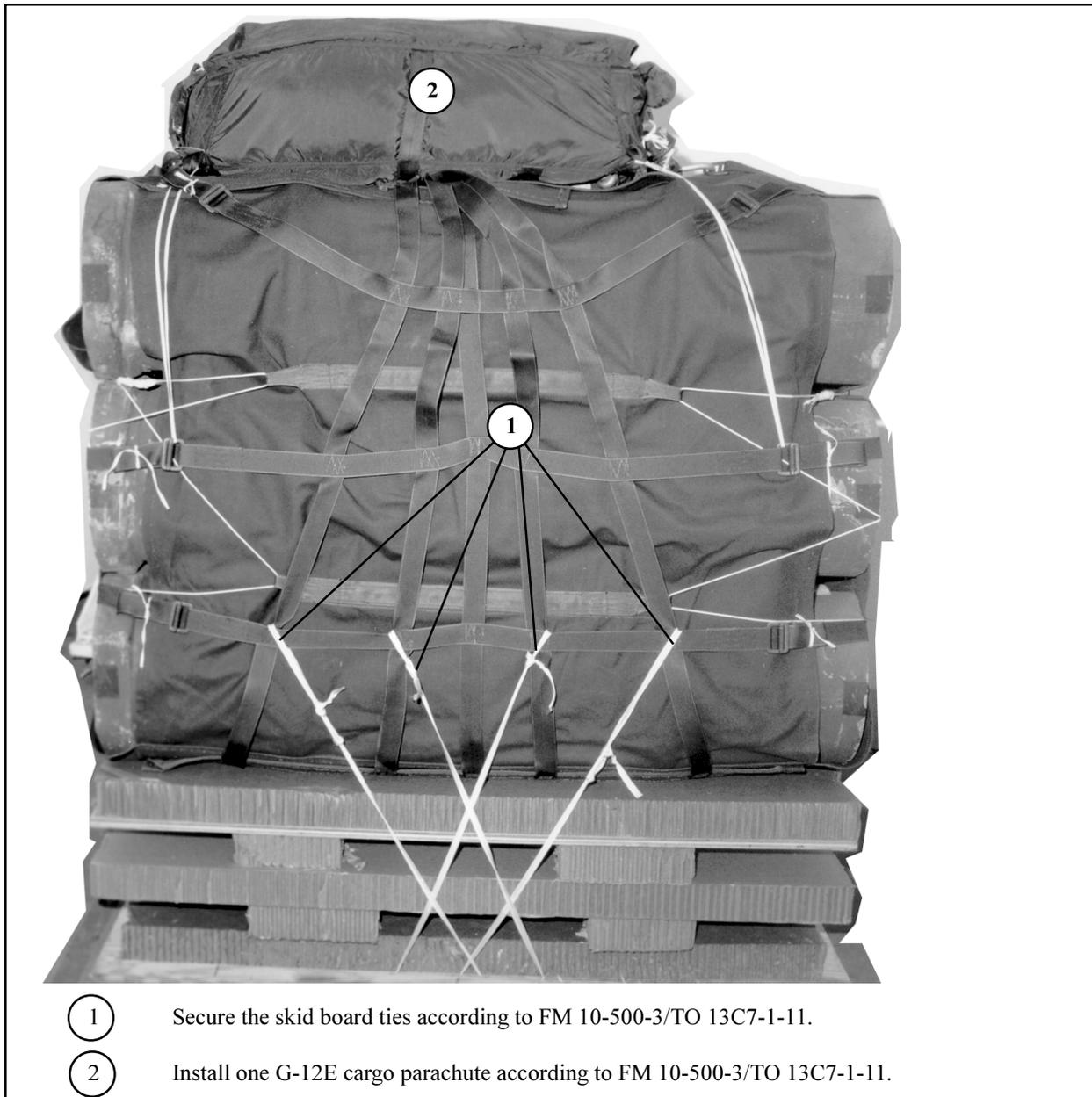


Figure 6-12. Skid board ties secured and parachute installed

6-18. Marking Rigged Load

Mark the rigged load according to FM 10-500-2/TO 13C7-1-5 and as shown in Figure 6-13. Complete Shipper's Declaration for Dangerous Goods and affix to load.

6-19. Equipment Required

Use the equipment listed in Table 6-3 to rig the load.

**RIGGED LOAD DATA**

| | |
|---------------|-----------------------|
| Rigged Weight | 810 pounds |
| Height | 65 1/2 inches |
| Width | 48 inches |
| Length | 60 inches |
| Parachute | G-12E cargo parachute |

Figure 6-13. Javelin nine-round CDS in an A-22 stretch container rigged

Table 6-3. Equipment required for rigging the Javelin nine-round CDS in an A-22 stretch container for a low-velocity airdrop

| National Stock Number | Item | Quantity |
|-----------------------|--------------------------------------|-------------|
| 1670-00-587-3421 | Bag, cargo, A-22 | 2 |
| 4030-00-678-8562 | Clevis, suspension, 3/4-in (medium) | 1 |
| 1670-01-162-2372 | Clevis assembly (type V) | 2 |
| 1670-00-753-3928 | Pad, energy-dissipating, honeycomb | 3 sheets |
| 1670-01-065-3755 | Parachute, cargo, G-12E | 1 |
| 5530-00-128-4981 | Plywood, 3/4- by 48- by 96-in | 2 sheets |
| 1670-01-062-6301 | Sling, cargo, airdrop, 3-ft (2-loop) | 4 |
| 7510-00-266-6710 | Tape, masking, 2-in | As required |
| 8305-00-268-2411 | Webbing: Cotton, 1/4-in, type I | As required |
| 8305-00-082-5752 | Tubular, 1/2-in | As required |
| 8305-00-263-3591 | Type VIII | As required |