Table 4-3. Equipment Required for Rigging the M1151 Expanded Capacity Armament Carrier for Low-Velocity Airdrop (Continued)

National Stock Number	Item	Quantity
1670-00-753-3928	Pad, energy-dissipating (honeycomb) 3- by 36- by 96-in	10 sheets
	Parachute: Cargo:	
1670-01-016-7841	G-11B	3
	Cargo extraction:	
1670-01-063-3716	22-ft	1
	Drogue (for C-17)	
1670-01-063-3715	15-ft	1
	Platform, airdrop, type V, 16-ft	
1670-01-353-8425	Bracket assembly, coupling	(1)
1670-01-162-2372	Clevis assembly, type V	(18)
1670-01-162-2376	Extraction bracket assembly	(1)
1670-01-162-2381	Tandem link assembly (Multipurpose link)	(4)
5530-00-128-4981	Plywood, 3/4-in	3 sheets
1670-01-097-8816	Release, cargo parachute, M-1	1
	Sling, cargo, airdrop For suspension:	
1670-01-063-7761	16-ft (2-loop), type XXVI nylon webbing	4
	For lifting:	
1670-01-062-6304	9-ft (2-loop), type XXVI nylon webbing	2
1670-01-062-6303	12-ft (2-loop), type XXVI nylon webbing	2
	For deployment:	
1670-01-062-6304	9-ft (2-loop), type XXVI nylon webbing	1
	For riser extension:	
1670-01-062-6302	60-ft (3-loop), type XXVI nylon webbing	3
5340-00-040-8219	Strap, parachute release, multi-cut, comes w/ 3 knives	2
7510-00-266-5016	Tape, adhesive, 2-in	As required
1670-00-937-0271	Tie-down assembly, 15-foot	27
1670-01-483-8259	Towplate release mechanism (h-block) (C-17 only)	1
1670-00-431-8486	Vehicle drive-off aid	1
	Webbing:	
8305-00-268-2411	Cotton, 1/4-in, type I	As required
8305-00-082-5752	Nylon, tubular, 1/2-in	As required
8305-00-268-2455	Nylon, tubular, 1-in	As required
8305-00-263-3591	Nylon, Type VIII	As required

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CHAPTER 5

RIGGING SPECIFIC ACCOMPANYING LOADS IN HMMWV-SERIES TRUCKS

DESCRIPTION OF LOADS

5-1. This chapter tells and shows how to rig specific items of Army equipment in the cargo bodies of HMMWV-series trucks. All trucks on 16-foot and 20-foot platforms must be rigged with a load in the truck. See the chapter or section for the particular truck for the minimum and maximum allowable load weights. If a specific piece of equipment is lighter than the minimum specified weight, additional items must be rigged to meet the minimum weight requirement.

Since loads in actual tactical situations vary greatly, and equipment changes rapidly, use these procedures as guides for rigging similar items.

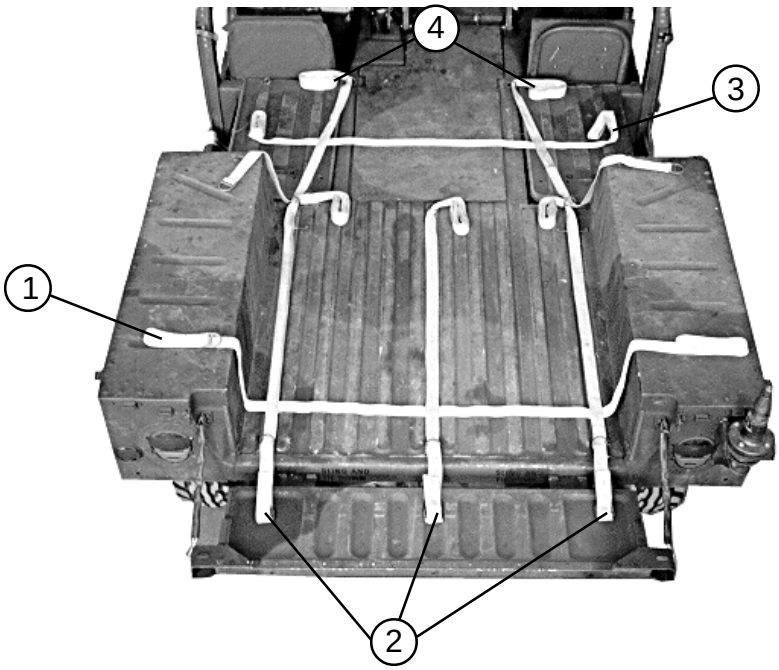
The loads shown in this chapter can be rigged in trucks of similar configuration and load capacity, unless the procedures specify that the load can be rigged in only one model of truck. Consult the chapter or section for the truck shown to find alternative truck models that can be used to rig the load.

CAUTION

Only ammunition listed in FM 10-500-53/MCRP 4-3.81/TO 13C7-18-41 may be airdropped. Package, mark, andlabel hazardous material according to AFJMAN 24-204/TM 38-250.

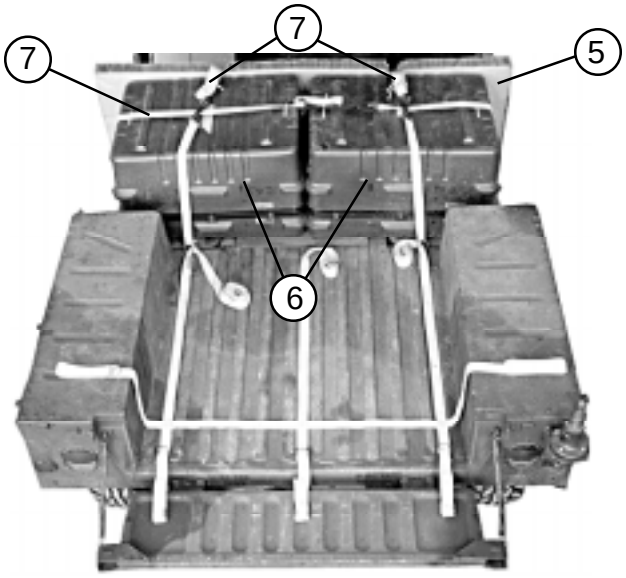
RIGGING TACCS, AMMUNITION, AND TRUCK EQUIPMENT IN M998 AND M1039 CARGO/TROOP CARRIERS

5-2. Use the procedures in Figure 5-1 to stow the TACCS (Tactical Army Combat Service Support Computer System), six boxes of 20-mm ammunition, and truck equipment. The accompanying load shown weighs 990 pounds.



1. Place a 15-foot lashing across the cargo bed 10 inches from its rear edge.
2. Pass three 15-foot lashings through the rear and center tie-down rings in the cargo bed.
3. Place a 15-foot lashing across the cargo bed 14 inches from the seat backs.
4. Pass a 15-foot lashing through the center and front tie-down rings on both sides.

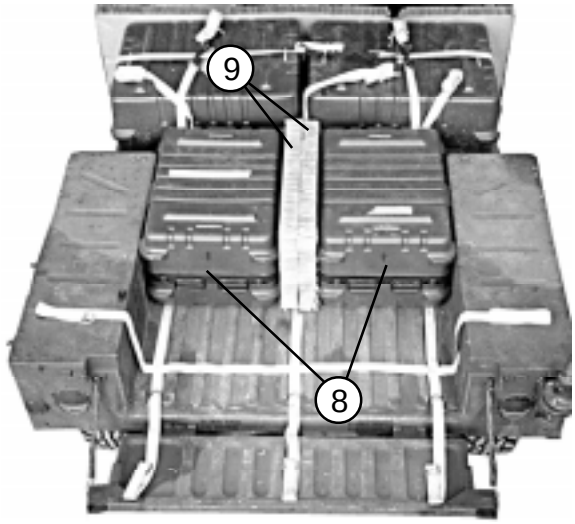
Figure 5-1. TACCS, Ammunition, and Truck Equipment Rigged in Cargo/Troop Carrier



5 Place a 22- by 82-inch piece of honeycomb flush against the seat backs.

6 Place the logic module and terminal cases side by side against the honeycomb.

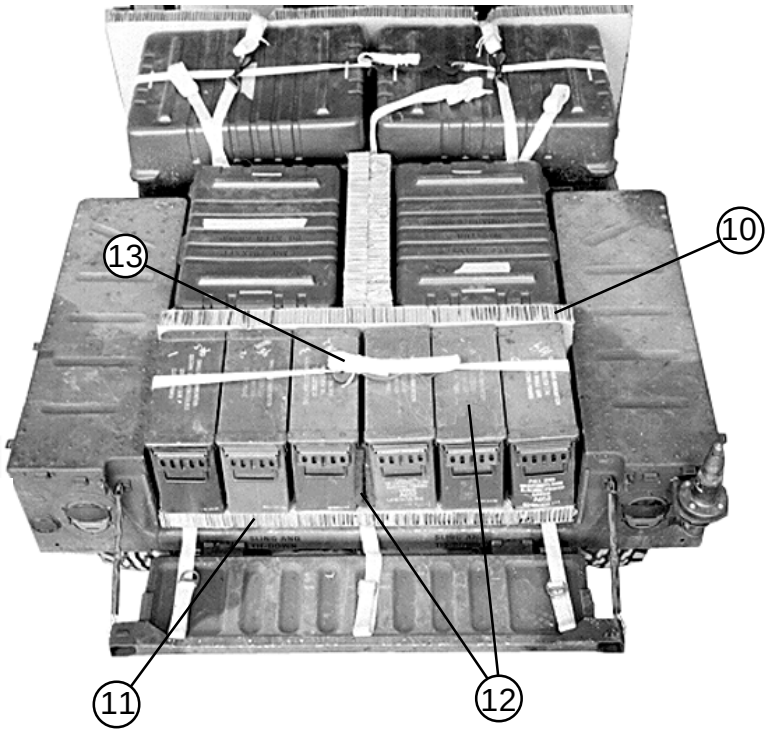
7 Secure the lashings placed in steps 3 and 4 with D-rings and load binders.



8 Place the keyboard and printer cases against the components placed in step 6 above.

9 Place two pieces of 18- by 32-inch honeycomb between the keyboard and printer cases.

Figure 5-1. TACCS, Ammunition, and Truck Equipment Rigged in Cargo/Troop Carrier (continued)



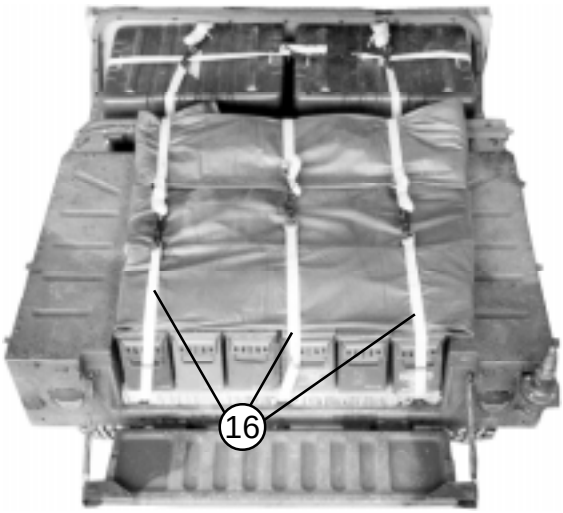
(10) Place an 18- by 52-inch piece of honeycomb against the keyboard and printer boxes.

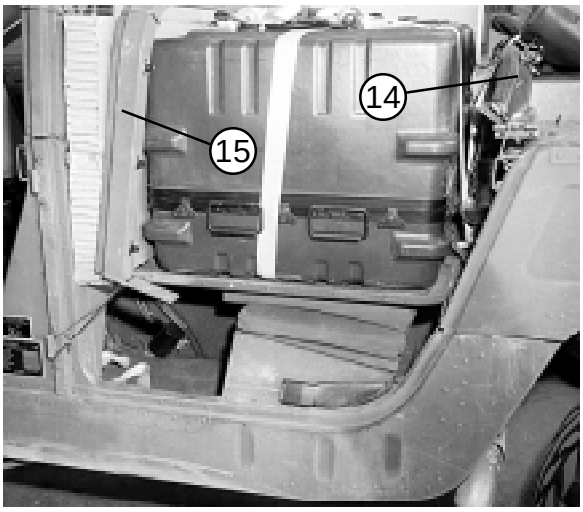
(11) Place an 18- by 52-inch piece of honeycomb on the cargo bed floor.

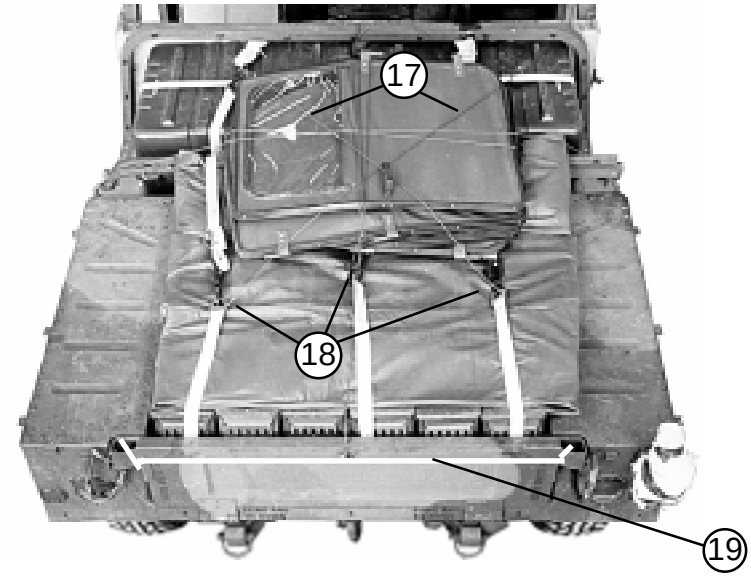
(12) Place six boxes of 20-mm ammunition on the honeycomb. Place two pieces of 1/2- by 15- by 19-inch felt between the third and fourth boxes.

(13) Bind the boxes together with the lashing placed in step 1.

Figure 5-1. TACCS, Ammunition, and Truck Equipment Rigged in Cargo/Troop Carrier (continued)







(14) Place the tarpaulin supports between the two sets of boxes.

(15) Place the roof support of four-door trucks against the honeycomb placed in step 5. Secure it to the B-pillar with type III nylon cord.

(16) Fold the tarpaulin over the ammunition, keyboard, and printer boxes. Run the lashings placed in step 2 through the nearest ammunition box handles, and over the tarpaulin supports in the front. Secure the lashings over the tarpaulin with D-rings and load binders.

(17) Tie the truck doors together with type III nylon cord and place them on the tarpaulin.

(18) Secure the doors to the lashing D-rings and other convenient points with type III nylon cord.

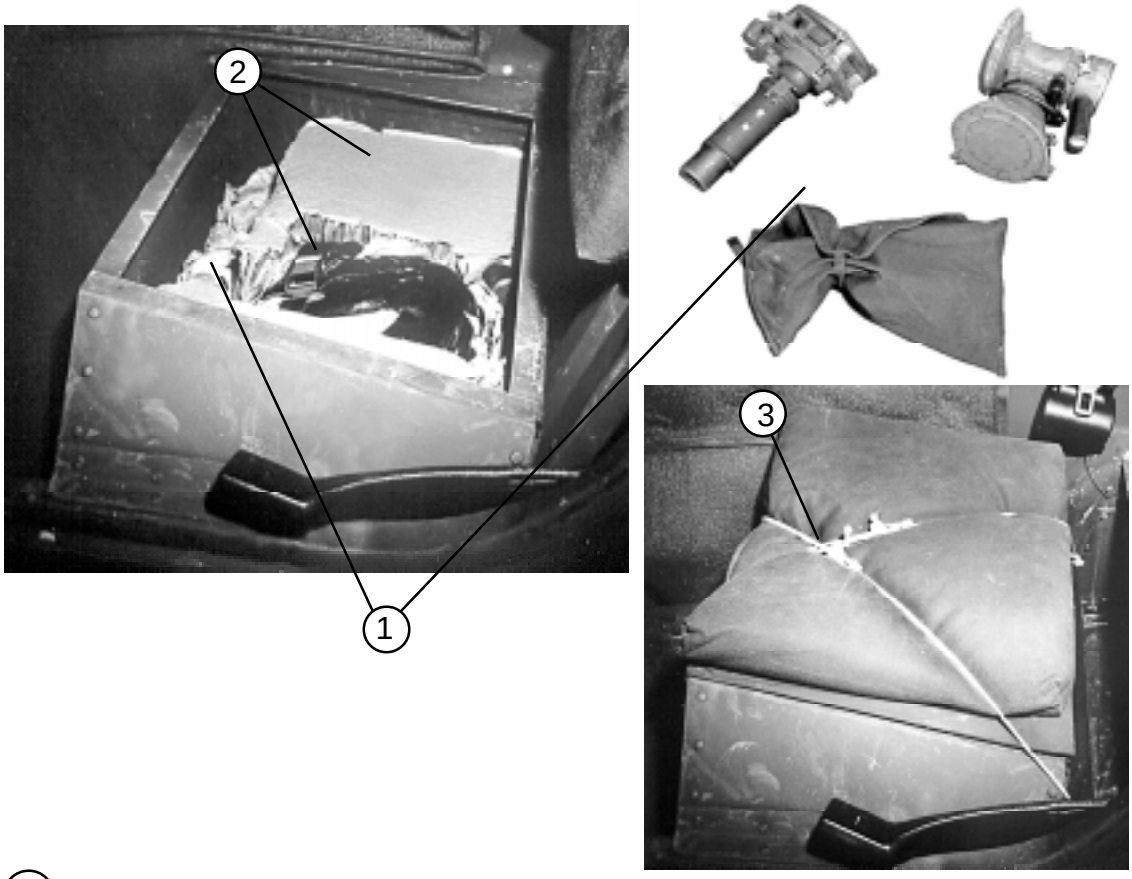
(19) Close the tailgate and secure it with 1/2-inch tubular nylon webbing.

Figure 5-1. TACCS, Ammunition, and Truck Equipment Rigged in Cargo/Troop Carrier (continued)

RIGGING AN/TVQ/2 GROUND/VEHICLE LASER LOCATOR DESIGNATOR (G/VLLD)IN M966 TOW CARRIER

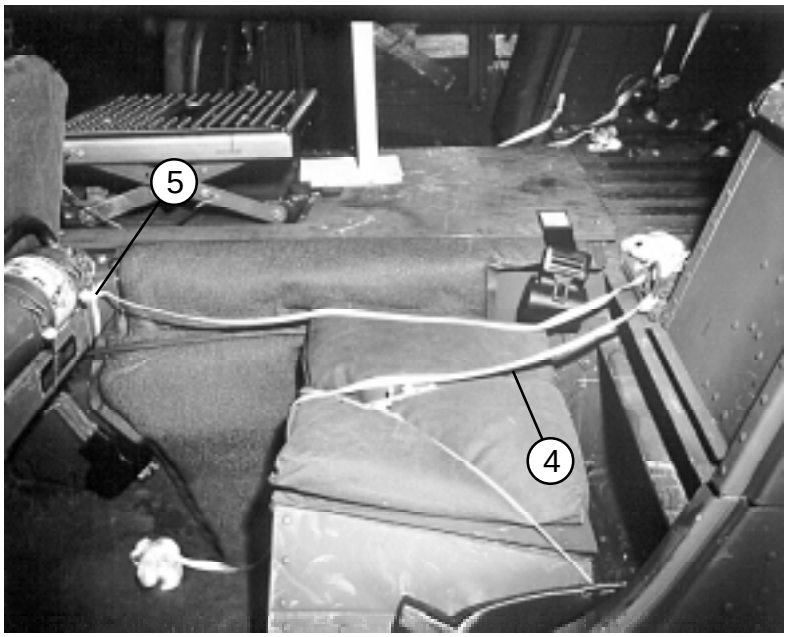
5-3. Use the procedures in Figure 5-2 to stow the G/VLLD, its accompanying equipment, camouflage net and poles, antenna, fuel can, and water can. This accompanying load weighs 801 pounds.

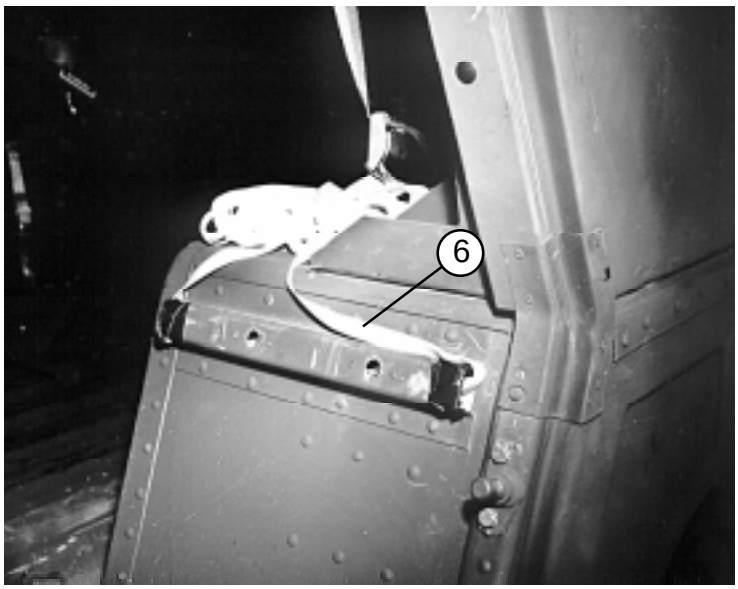
Note: Make sure the unit owning the truck has installed the deck tie-down rings.



1. Pad the two sections of the traversing unit assembly and any other small objects with cellulose wadding. Place them in the storage areas under the rear seat cushions.
2. Secure the stowed equipment with the straps provided. Fill empty areas with honeycomb.
3. Tie the seat cushions over the storage areas with type III nylon cord.

Figure 5-2. G/VLLD andAccompanying Equipment Rigged in M966 Tuck



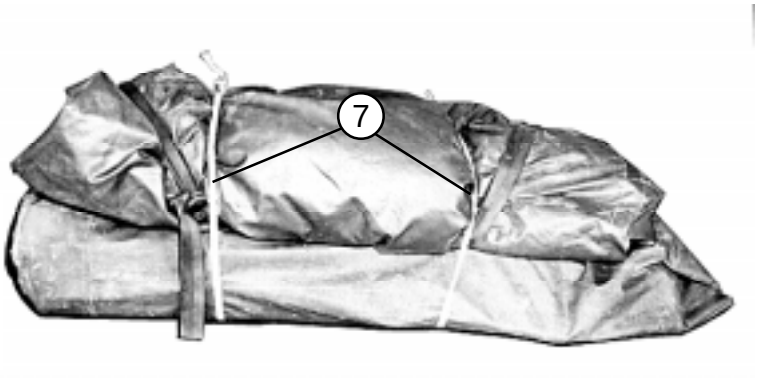


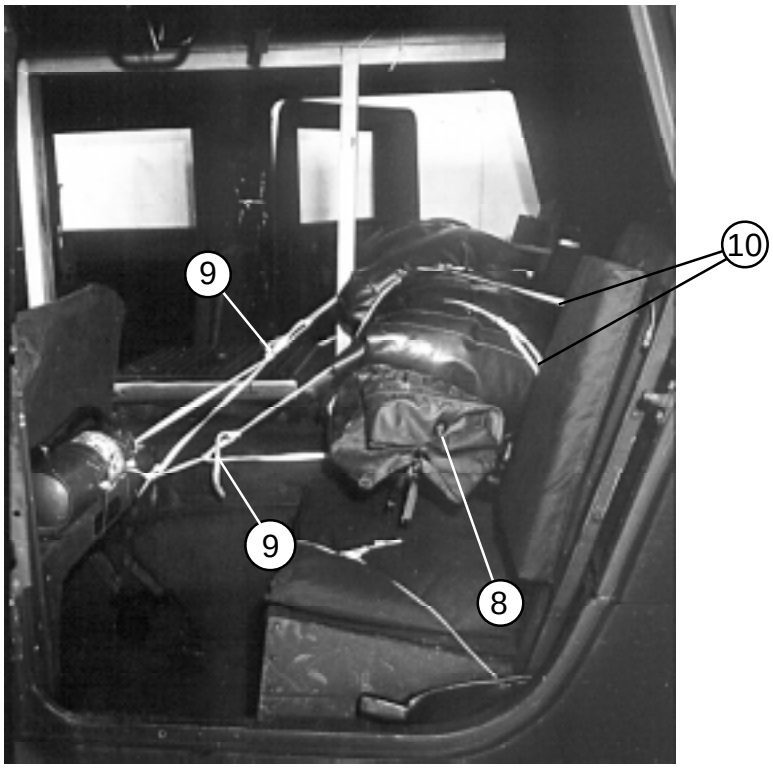
(4) Tie an 8-foot length of 1/2-inch tubular nylon webbing to the deck ring behind each rear seat with two half hitches.

(5) Tie an 8-foot length of 1/2-inch tubular nylon webbing to the frame behind each rear set with two half hitches.

(6) Tie an 8-foot length of 1/2-inch tubular nylon webbing through each rear seat support. Tape the ends of the seat supports.

Figure 5-2. G/VLLD andAccompanying Equipment Rigged in M966 Ŧuck (continued)





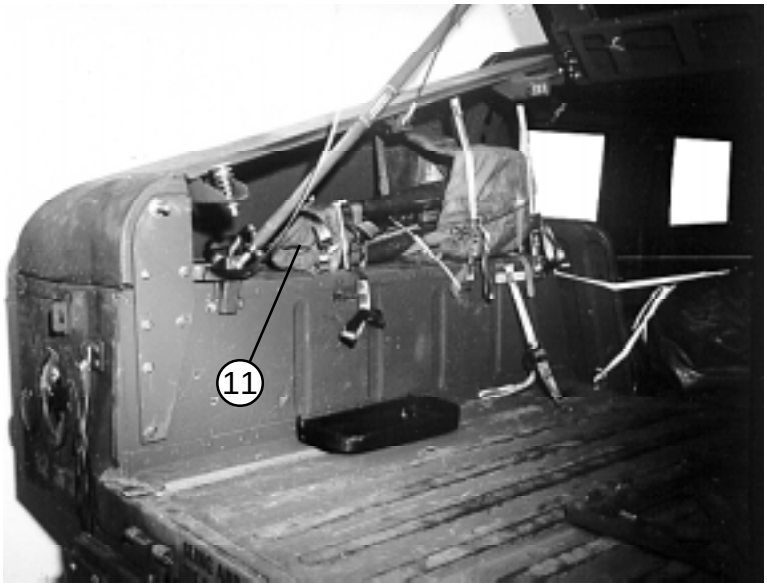
7 Tie the camouflage net and net pole bags together with two lengths of 1/2-inch tubular nylon webbing.

8 Raise the back seats and place the bags across the seats.

9 Bring each nylon tie placed in steps 4 and 5 around the bags, and tie each to itself with a trucker's hitch.

10 Bring each length of nylon webbing placed in step 6 over the bags, and tie them to the frame behind the front seat on the opposite side.

Figure 5-2. G/VLLD andAccompanying Equipment Rigged in M966 Truck (continued)

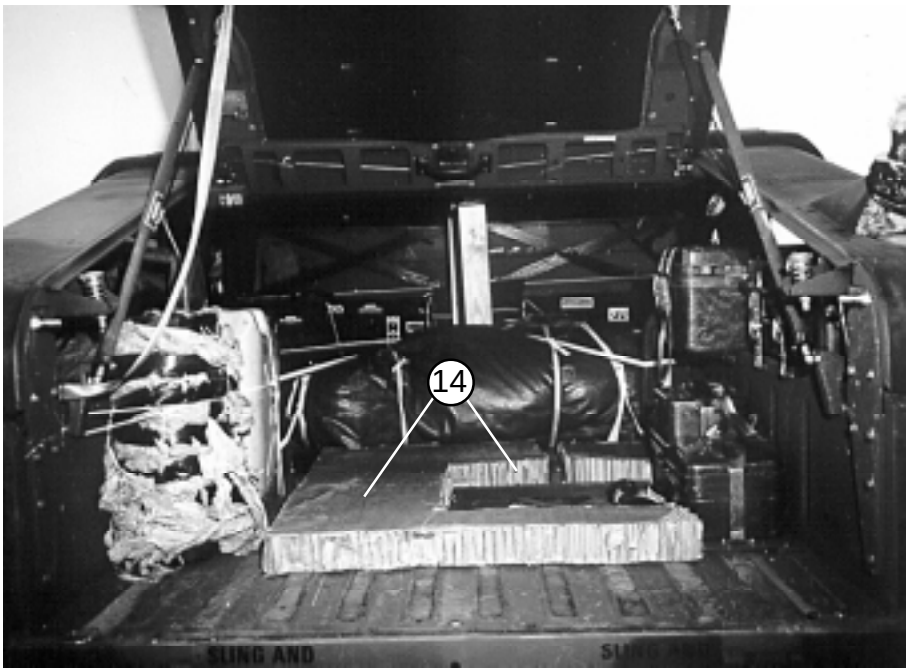


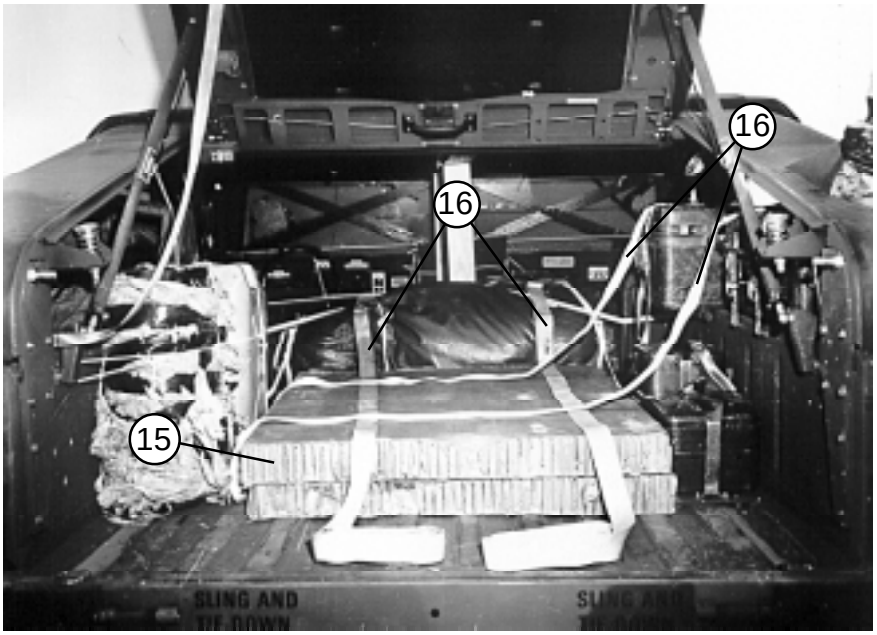
(11) Put the tripod in its case, and secure the case on the left rear shelf with the straps provided. Safety the tripod case to the strap brackets with type III nylon cord.

(12) Stow the night sight, bore sight, battery power conditioner, and spare batteries in their compartments with the straps provided.

(13) Pad a filled fuel can with cellulose wadding, and tape the cellulose wadding in place. Secure the fuel can in its bracket with the strap provided. Secure a water can with the strap provided. Safety tie both cans with type III nylon cord.

Figure 5-2. G/VLLD andAccompanying Equipment Rigged in M966 Truck (continued)



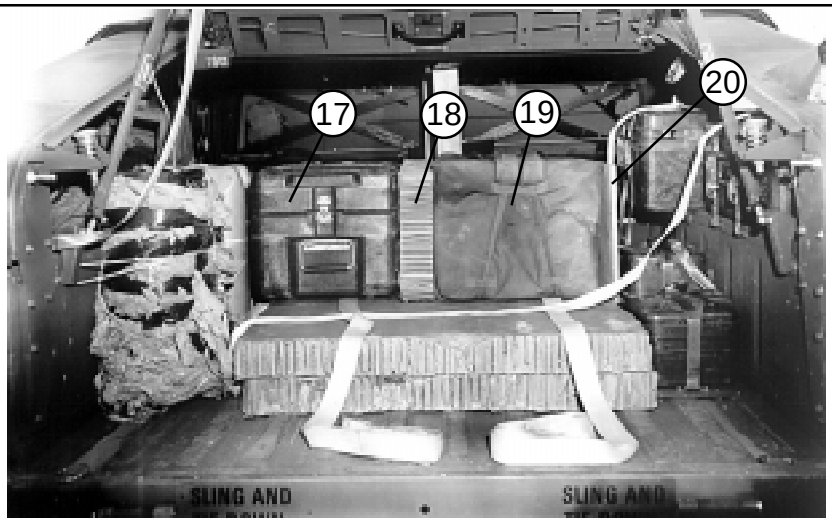


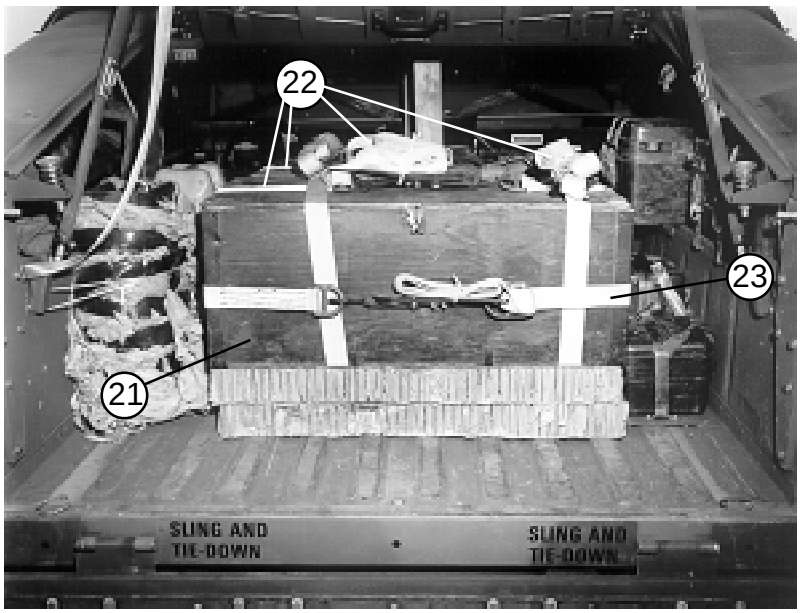
(14) Make cutouts in a 31 1/2- by 35-inch piece of honeycomb to fit the fixtures on the floor. Fit a 9 1/2- by 10 1/2-inch piece of honeycomb in the front right.

(15) Place a 31 1/2- by 35-inch piece of honeycomb over the honeycomb placed in step 14 above.

(16) Place two 15-foot lashings vertically and two 15-foot lashings horizontally on top of the honeycomb.

Figure 5-2. G/VLLD andAccompanying Equipment Rigged in M966 Truck (continued)





(17) Place the transformer at the left front edge of the honeycomb.

(18) Place a 12 1/2- by 20 1/2-inch piece of honeycomb to the right of the transformer.

(19) Place the laser designator/rangefinder (LD/R) case next to the honeycomb.

(20) Place a 3/4- by 12 1/2- by 20 1/2-inch piece of plywood to the right of the LD/R case.

(21) Place the accessory chest along the rear edge of the honeycomb.

(22) Secure the four lashings placed in step 16 with D-rings and load binders.

(23) Place and secure a fifth 15-foot lashing around the items on the honeycomb.

Figure 5-2. G/VLLD andAccompanying Equipment Rigged in M966 Ŧuck (continued)

(24) Place the antenna poles on top of the load. Secure them to convenient points with type III nylon cord.

(25) Place any other truck equipment on top of the load, and secure it with 1/2-inch tubular nylon webbing. (The pioneer tool kit is shown, but it is not necessary to remove it from its normal stowage position under the truck.)

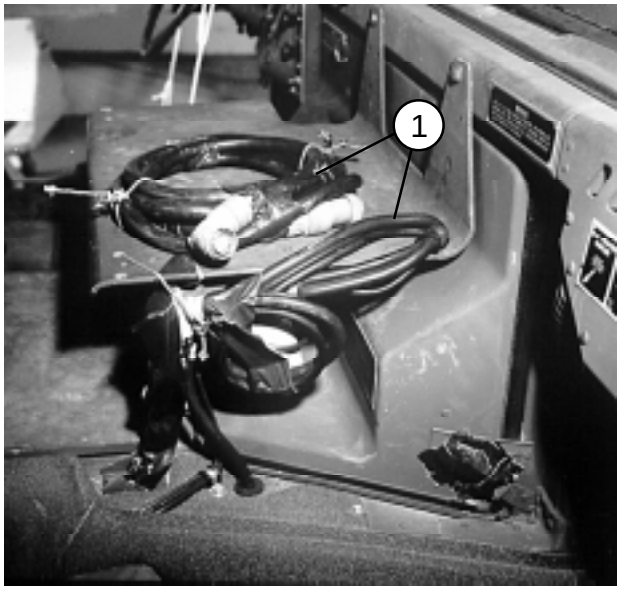
(26) Pass a 15-foot lashing over the load from the right rear to the left front tie-down ring. Secure it with a D-ring and a load binder.

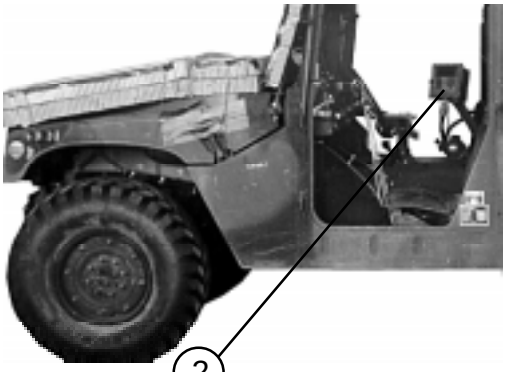
(27) Pass a 15-foot lashing over the load from the left rear to the right front tie-down ring. Secure it with a D-ring and a load binder.

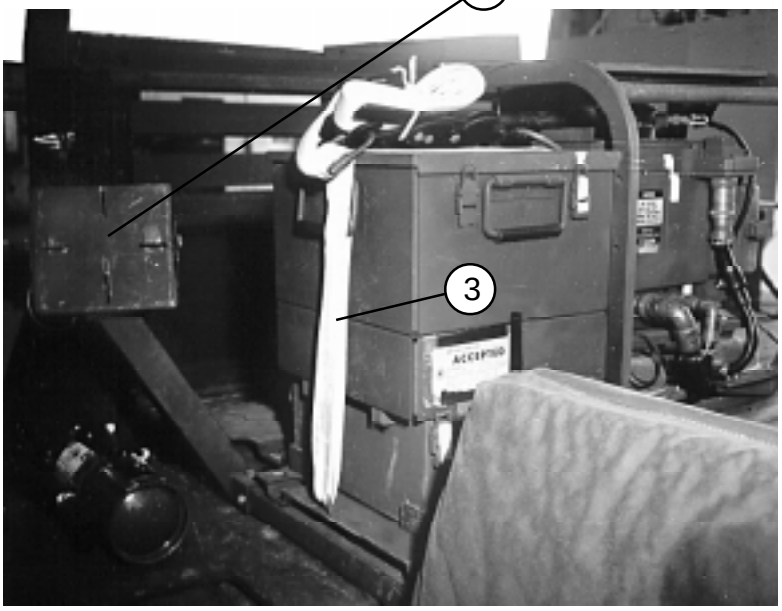
Figure 5-2. G/VLLD andAccompanying Equipment Rigged in M966 Tuck (continued)

RIGGING AN/USG-70 POSITION AND AZIMUTH DETERMINING SYSTEM (PADS) IN M998 CARGO/TROOP CARRIER

5-3. Use the procedures shown in Figure 5-13 to rig the PADS, camouflage net and poles, fuel can, water can, and four boxes of 105-mm ammunition. The load shown here weighs 834 pounds.

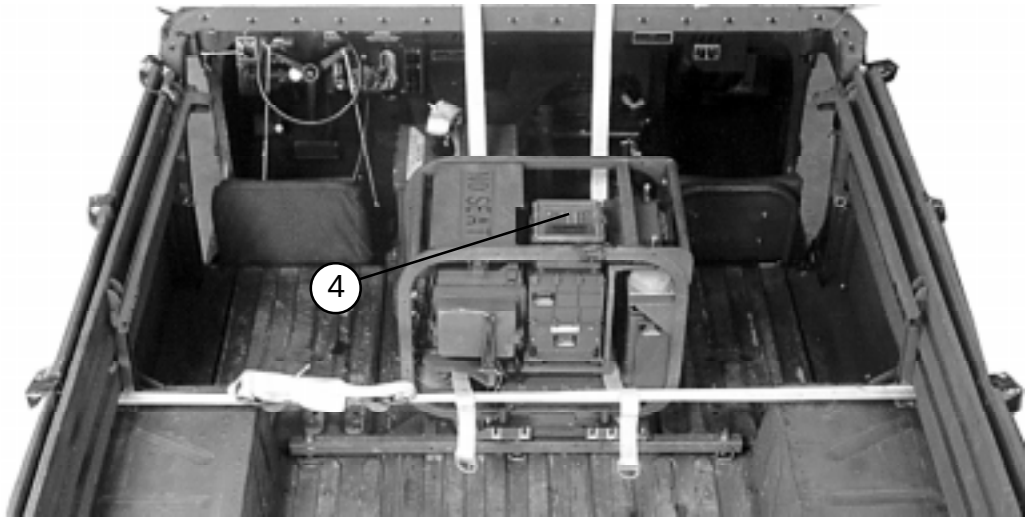


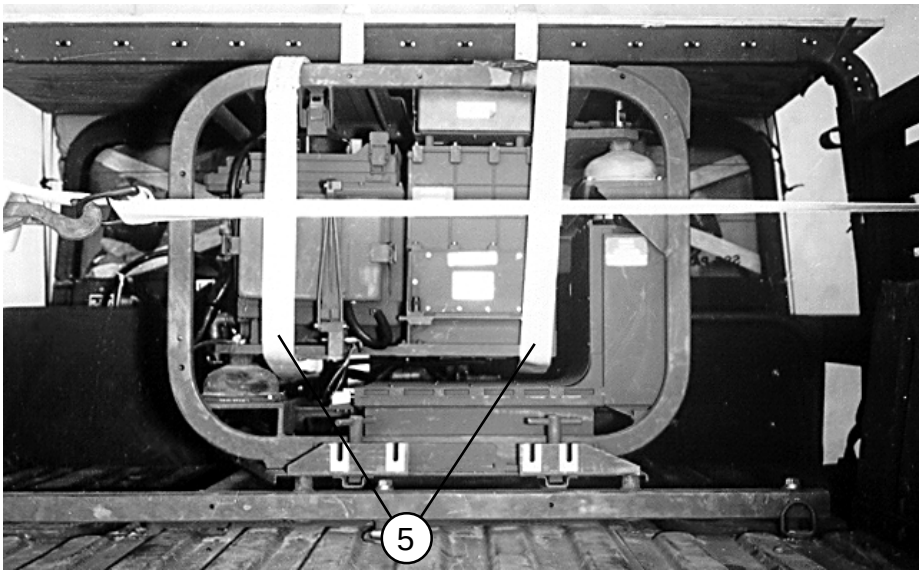




1. Roll and tie any cables. Secure them to the radio rack or other convenient points with type III nylon cord. They may also be stored in the battery box.
2. Remove the computer display unit (CDU) from its mount.
3. Secure the battery box to the tie-downs provided with a 15-foot lashing. Pass the lashing through the handles of the battery box.

Figure 5-3. PADS and Ammunition Rigged in M998 Truck



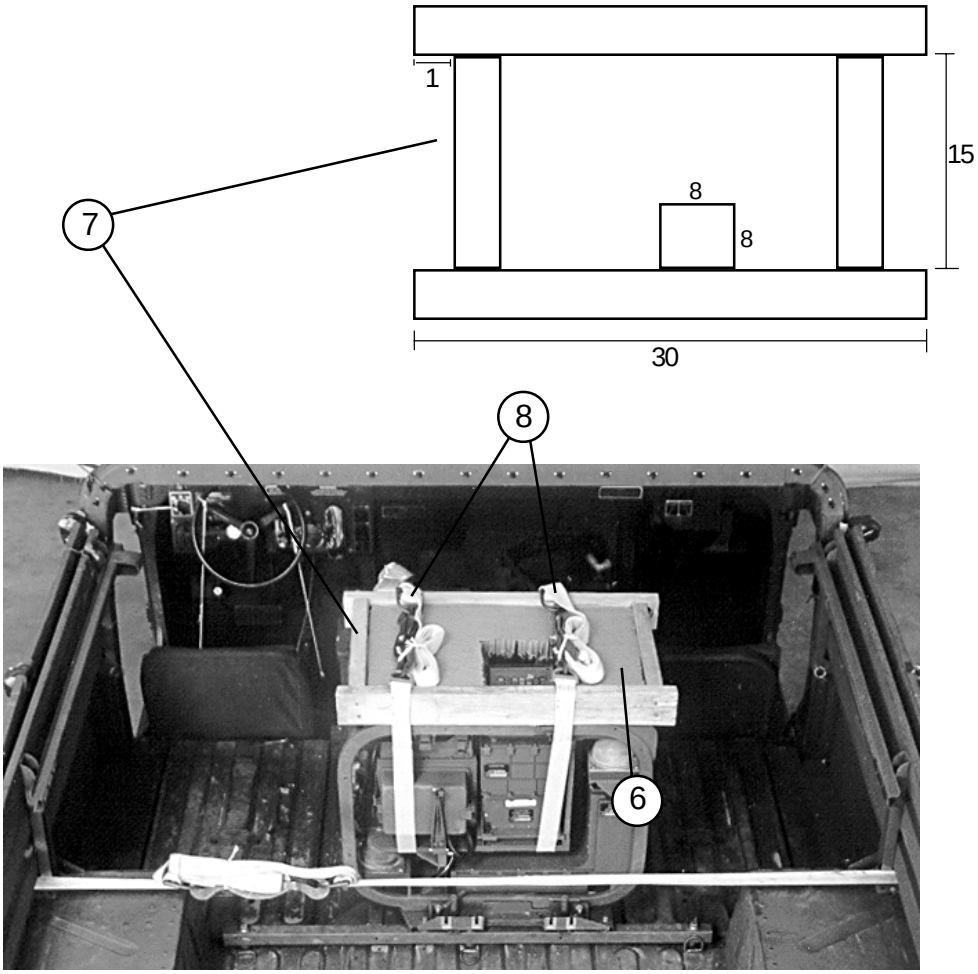


4 Place the CDU in its mount on top of the computer unit. Secure it with the clamps provided.

5 Position two 15-foot lashings under the computer unit and the inertia measuring unit. Keep the lashings away from the plumb bar and the cables under the computer.

Figure 5-3. PADS and Ammunition Rigged in M998 Truck (continued)

Notes: 1. This drawing is not drawn to scale.
2. All dimensions are in inches.

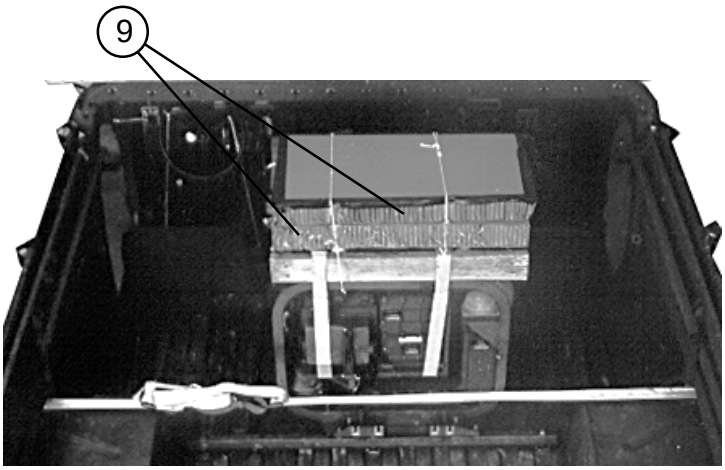


6 Center a 15- by 25-inch piece of honeycomb over the top of the equipment rack. Position an 8- by 8-inch cutout along the rear edge of the honeycomb to accommodate the CDU.

7 Construct a wood frame as shown using 2- by 4-inch lumber and 6-penny nails. Fit the wood frame around the honeycomb placed in step 6 above.

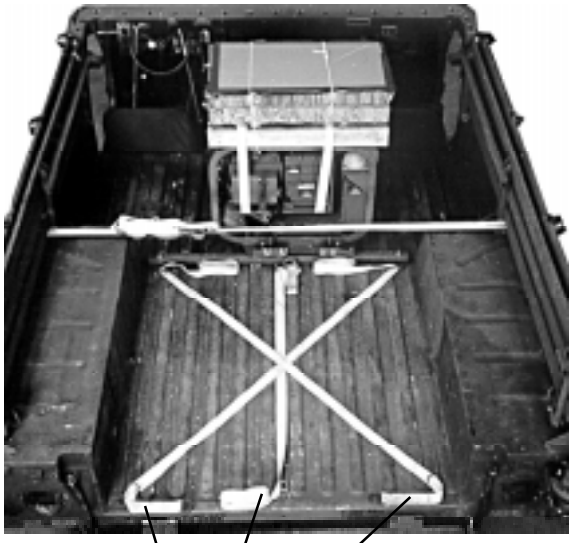
8 Fasten the lashings placed in step 5 over the honeycomb with D-rings and load binders.

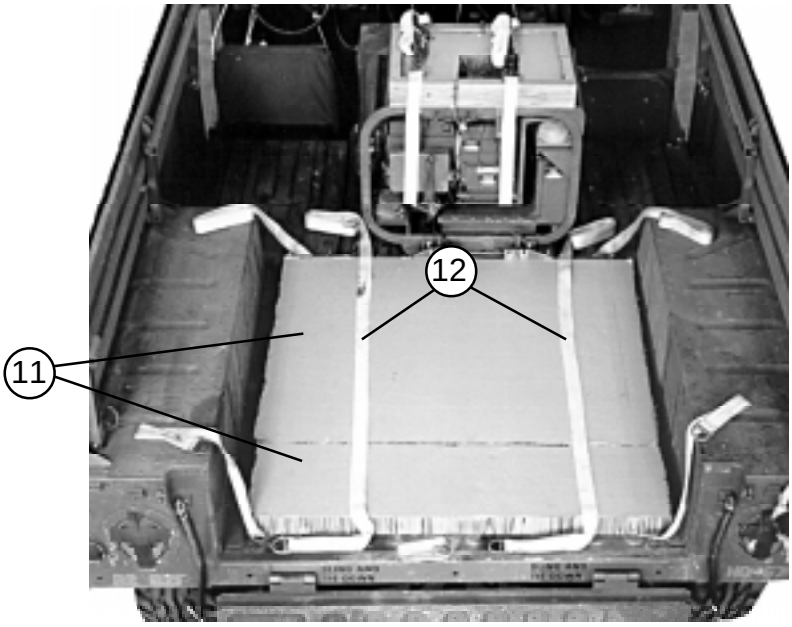
Figure 5-3. PADS and Ammunition Rigged in M998 Truck (continued)



9 Place two 14- by 14-inch pieces of honeycomb over the battery box. Place two 18- by 31-inch pieces of honeycomb over the wood frame. Tape the edges of the top layers, and tie the honeycomb over the components with type III nylon cord.

Figure 5-3. PADS and Ammunition Rigged in M998 Truck (continued)



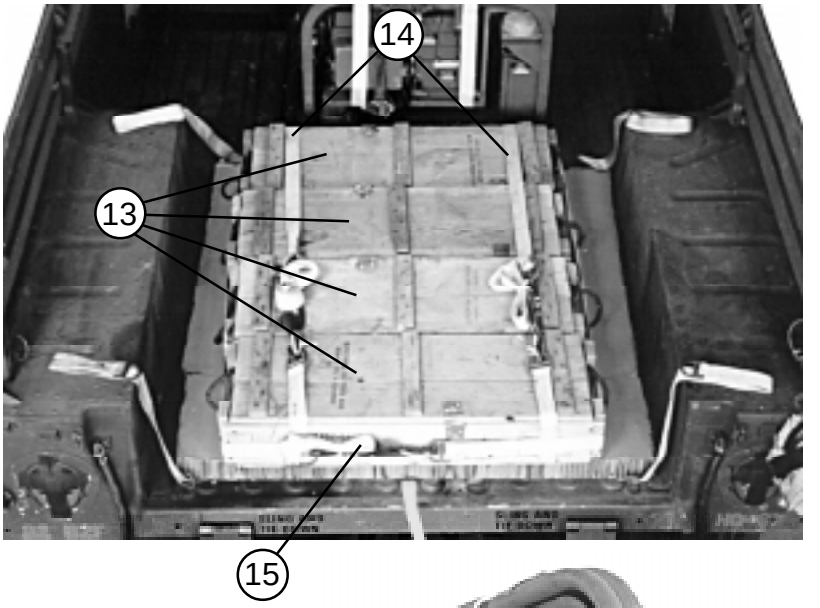


10 Pass a 15-foot lashing through the center tie-down rings. Pass a 5-foot lashing through the left front and right rear tie-down rings. Pass another 15-foot lashing through the left rear and right front tie-down rings.

11 Place a 12- by 48-inch piece and a 36- by 48-inch piece of honeycomb as a single layer over the lashings.

12 Position two 15-foot lashings 10 inches from each side of the honeycomb.

Figure 5-3. PADS and Ammunition Rigged in M998 Truck (continued)



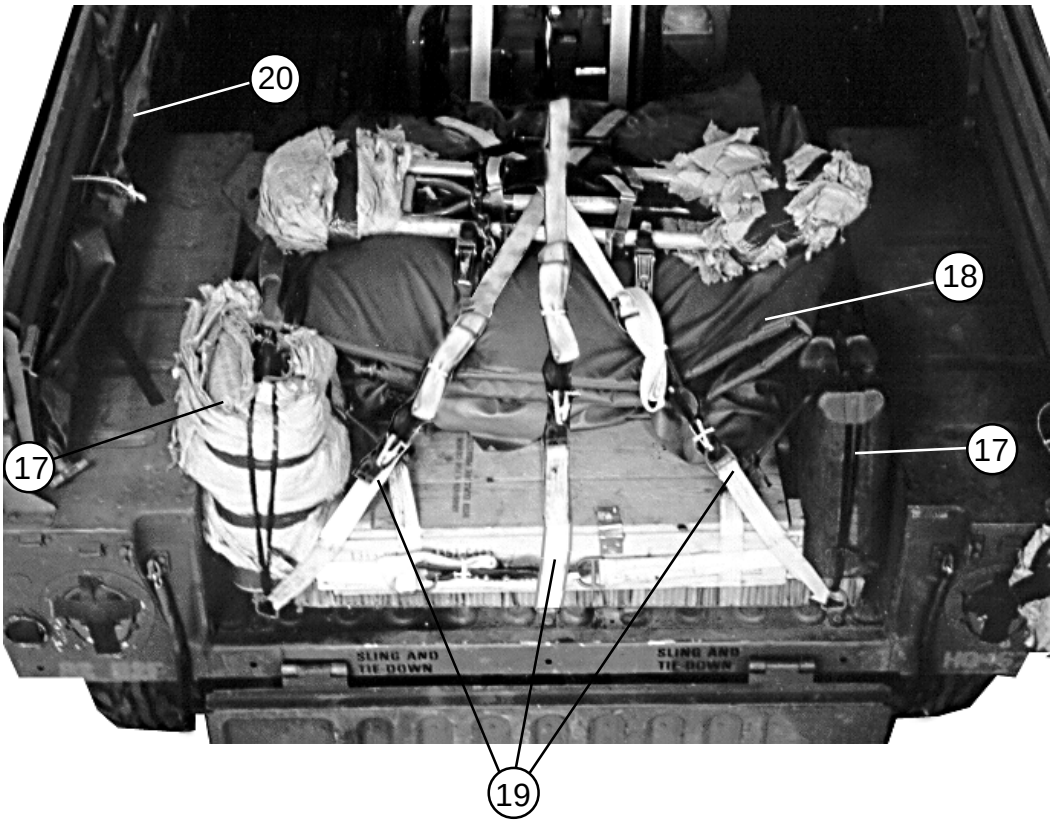
13 Center four boxes of ammunition on the honeycomb.

14 Bind the boxes together with the lashings placed in step 10.

15 Run a 15-foot lashing through all the box carying handles. Fasten the lashing at the rear of the boxes.

16 Tape the truck tarpaulin support bows together, and tie them to the B-pillar with type III nylon cord.

Figure 5-3. PADS and Ammunition Rigged in M998 Truck (continued)



(17) Set a padded fuel can and a plastic water can between the ammunition boxes and wheel wells at the rear of the load. Tie them to the nearest tie-down rings, to the PADS frame, and to the binding lashings with 1/2-inch tubular nylon webbing.

(18) Place the camouflage net and pole bags, the cab doors, the truck cab cover, and tarpaulin on top of the ammunition boxes.

Note: The pioneer tool kit is also shown, but it does not need to be removed from its rack under the truck.

(19) Fasten the three lashings placed in step 10 over the load with D-rings and load binders.

(20) Tie the antenna, cab cover supports, or other loose objects to the side slats with type III nylon cord.

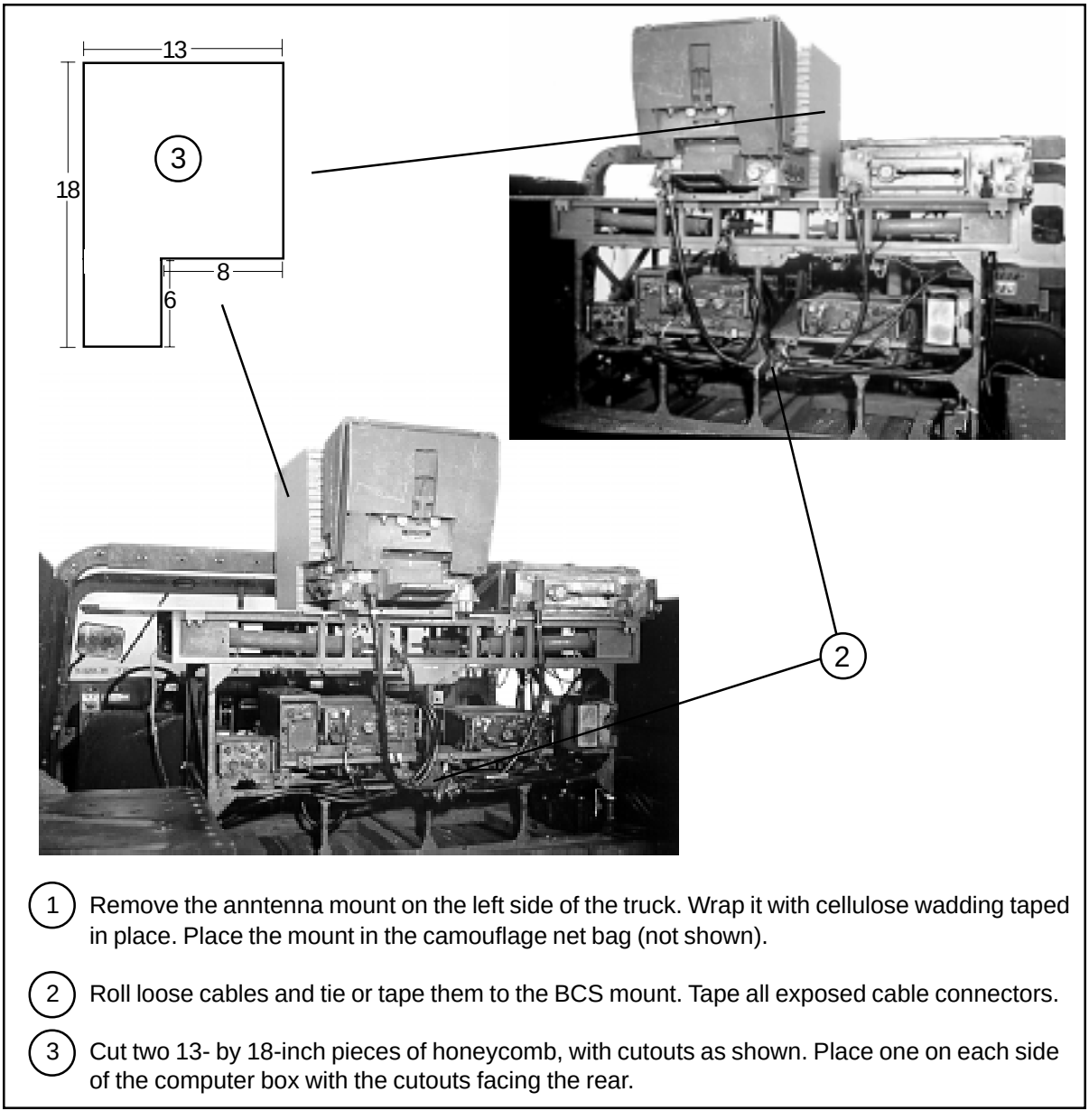
(21) Close the tailgate and tie it with 1/2-inch tubular nylon webbing (not shown).

Figure 5-3. PADS and Ammunition Rigged in M998 Truck (continued)

RIGGING BATTERY COMPUTER SYSTEM (BCS) IN M998 TRUCK

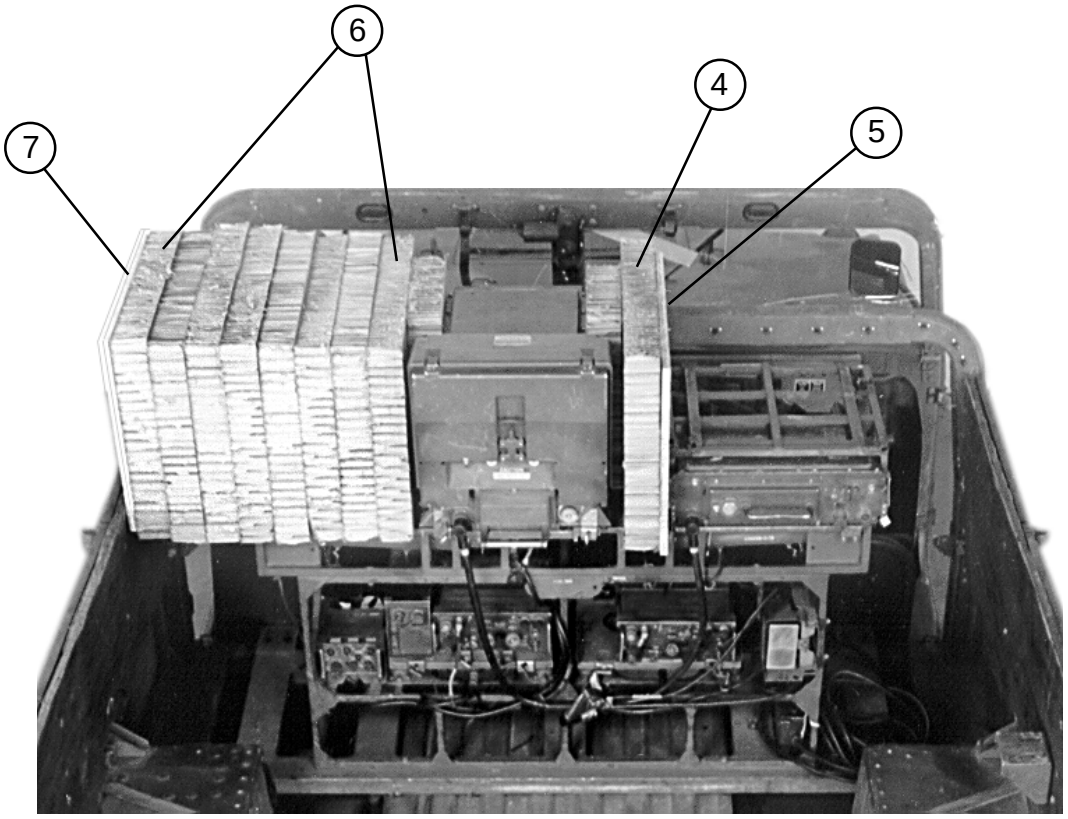
5-5. Use the procedures shown in Figure 5-4 to rig the BCS, camouflage net and poles, generator, and truck and crew equipment. This accompanying load weighs 801 pounds.

Note: Be sure the unit owning the truck has installed the BCS in its mount and the solid side boards on the truck.



1. Remove the anntenna mount on the left side of the truck. Wrap it with cellulose wadding taped in place. Place the mount in the camouflage net bag (not shown).
2. Roll loose cables and tie or tape them to the BCS mount. Tape all exposed cable connectors.
3. Cut two 13- by 18-inch pieces of honeycomb, with cutouts as shown. Place one on each side of the computer box with the cutouts facing the rear.

Figure 5-4. BCS andAccompanying Equipment Rigged in M998 Tuck



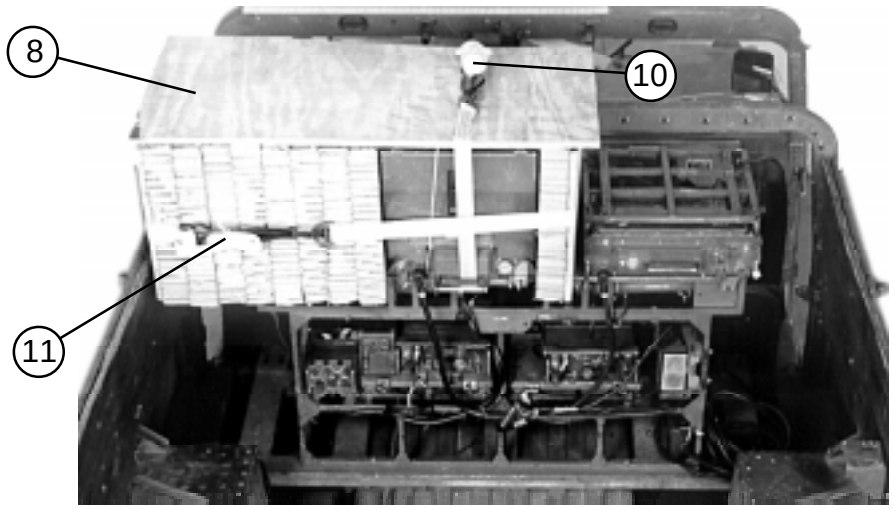
4 Center an 18- by 25-inch piece of honeycomb against the right side of the computer box.

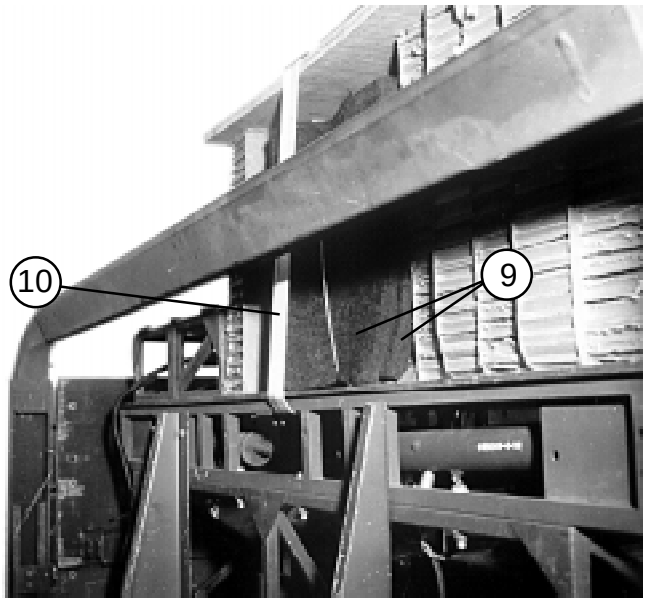
5 Place a 3/4- by 18- by 25-inch piece of plywood flush against the honeycomb placed in step 4 above.

6 Center eight 18- by 25-inch pieces of honeycomb against the left side of the computer box.

7 Place a 3/4- by 18- by 25-inch piece of plywood flush against the left side of the honeycomb placed in step 6 above.

Figure 5-4. BCS andAccompanying Equipment Rigged in M998 Truck (continued)





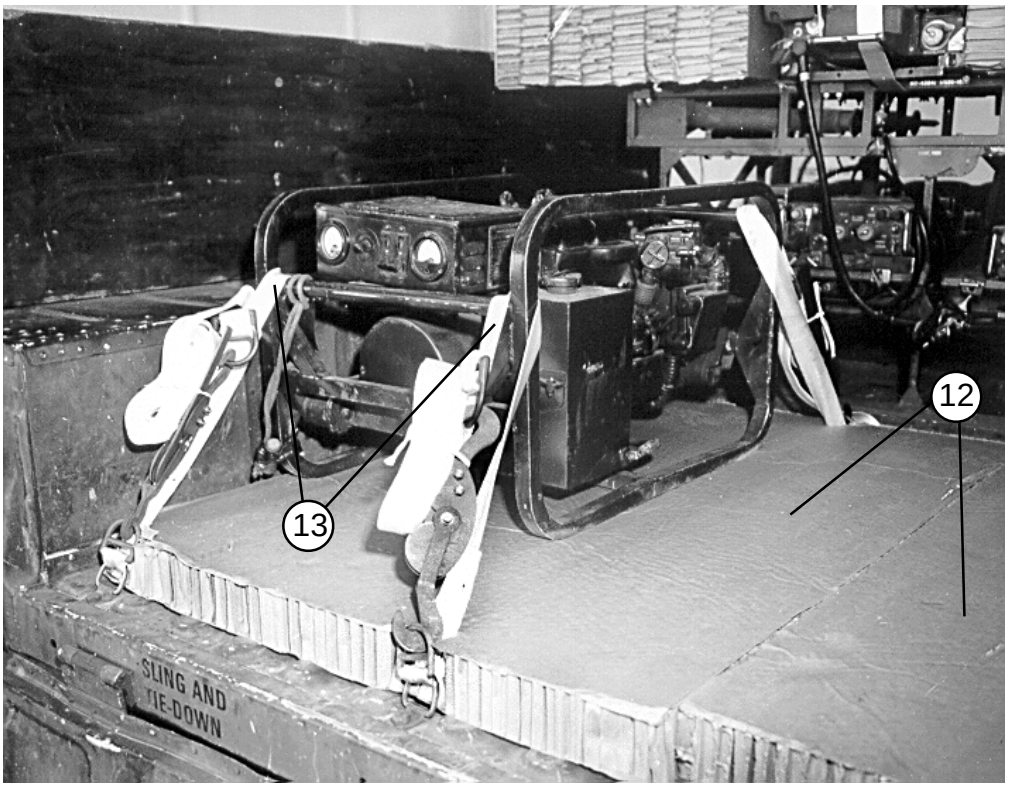
8 Place a 3/4- by 27- by 47-inch piece of plywood flush over the honeycomb and plywood placed in steps 4 through 7.

9 Pad the front side of the computer box with two 12- by 16-inch pieces of felt. Tie the felt in place with type III nylon cord.

10 Run a 15-foot lashing around the computer box, through the rear carrying handle, and under the top bar of the mount. Fasten the lashing on top of the plywood cover.

11 Run a 15-foot lashing around the plywood and honeycomb placed in steps 4 through 7. Fasten the lashing on the rear side.

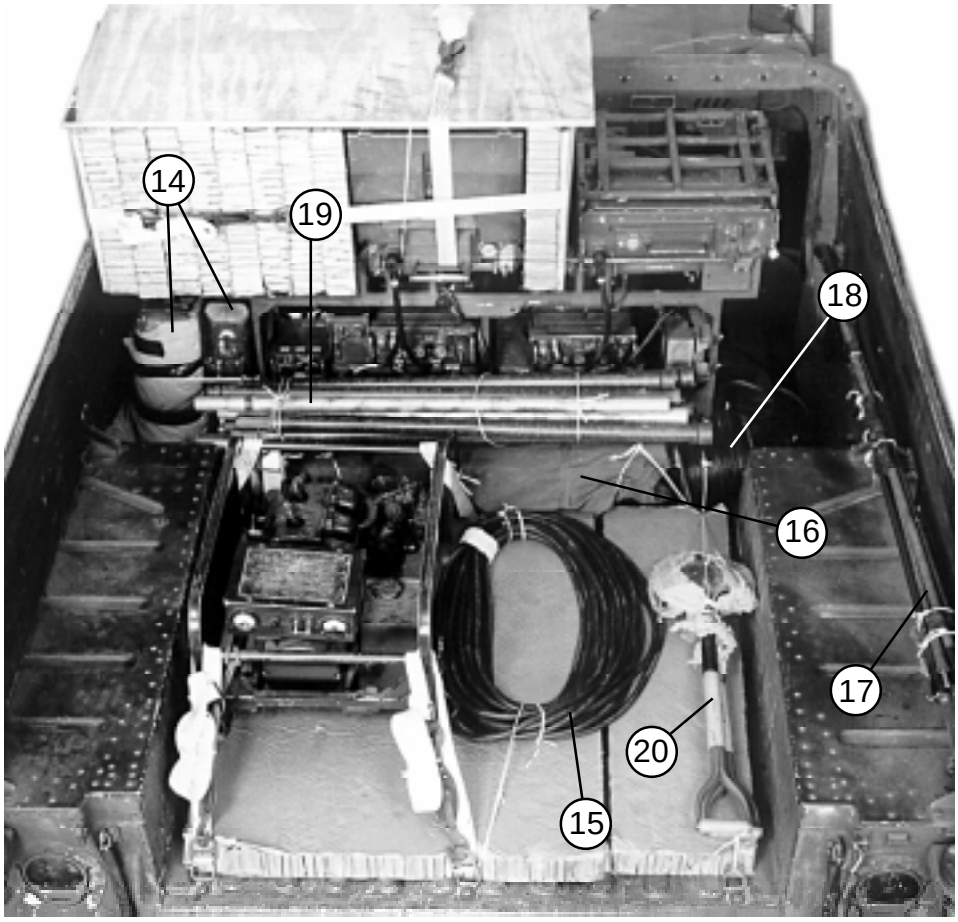
Figure 5-4. BCS andAccompanying Equipment Rigged in M998 Truck (continued)



(12) Cover the bed of the truck between the center and rear tie-down rings with a 12- by 48-inch piece and a 36- by 48-inch piece of honeycomb. Place the honeycomb as shown.

(13) Place the generator on the honeycomb against the left wheel well. Lash each corner of the generator frame to the nearest tie-down ring.

Figure 5-4. BCS andAccompanying Equipment Rigged in M998 Truck (continued)



(14) Set a padded fuel can and a plastic water can to the left of the BCS rack. Tie them to the rack with type III nylon cord.

(15) Roll and tie the generator cable with type I, 1/4-inch cotton webbing. Lay it to the right of the generator, and tie the cable to the center tie-down rings with type III nylon cord.

(16) Place the antenna bag on the floor across the front of the BCS rack. Use type III nylon cord to tie the ends of the bag, and to secure the bag to the nearest tie-down rings.

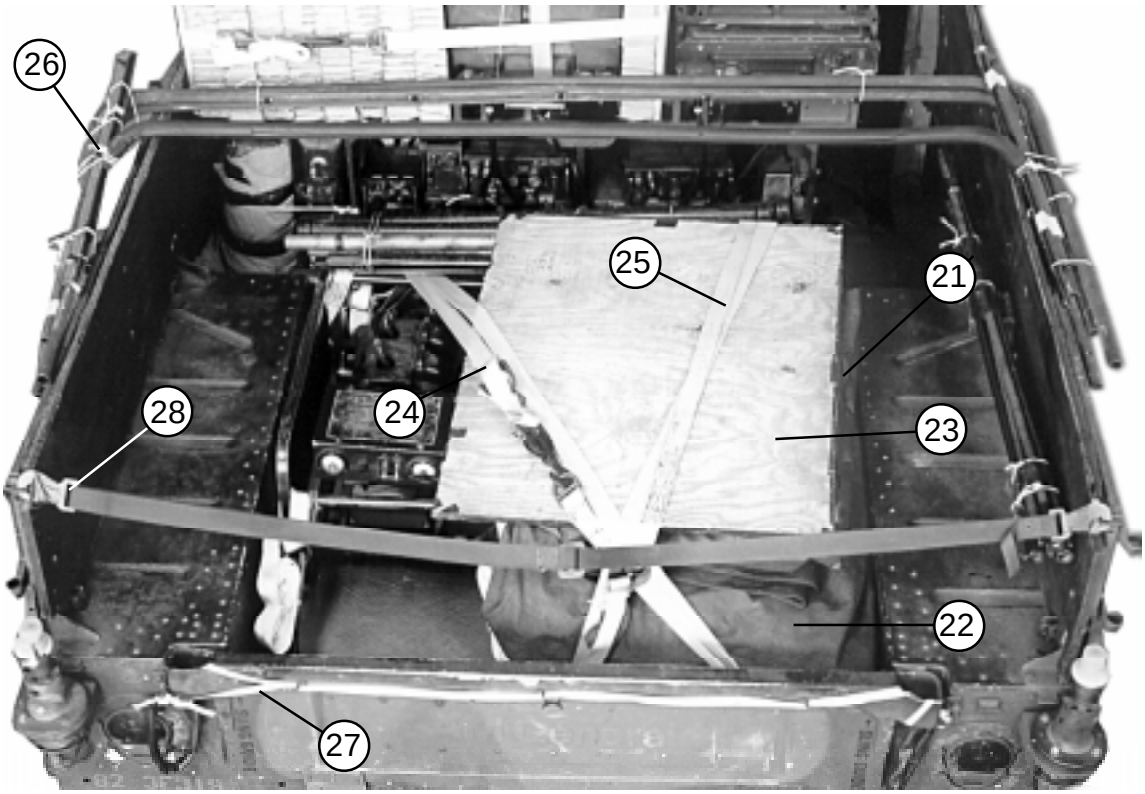
(17) Secure the small truck antenna to the truck sideboards with type III nylon cord.

(18) Place the spool of communications wire over the right center tie-down ring. Tie it to the ring with type III nylon cord.

(19) Place the camouflage net poles over the antenna bag. Secure them to the left and right center tie-down rings with type III nylon cord.

(20) Pad the blades of the two shovels with cellulose wadding taped in place. Tie the shovels to the right rear and right center tie-down rings with type III nylon cord.

Figure 5-4. BCS andAccompanying Equipment Rigged in M998 Tuck (continued)



21 Place the camouflage net bag on the right side of the cargo bed.

22 Fold the tarpaulin and cab cover, and place them over the generator cable and shovels.

23 Place the plotting boards over the truck covers.

24 Pass a 15-foot lashing through the right rear tie-down ring, over the plotting boards, and through the left front tie-down ring. Secure the lashing on top of the load.

25 Pass a 15-foot lashing through the center rear tie-down ring, over the plotting boards, and through the right front tie-down ring. Secure the lashing on top of the load.

26 Tie the bows together with type III nylon cord. Tie them to the sideboards with type III nylon cord.

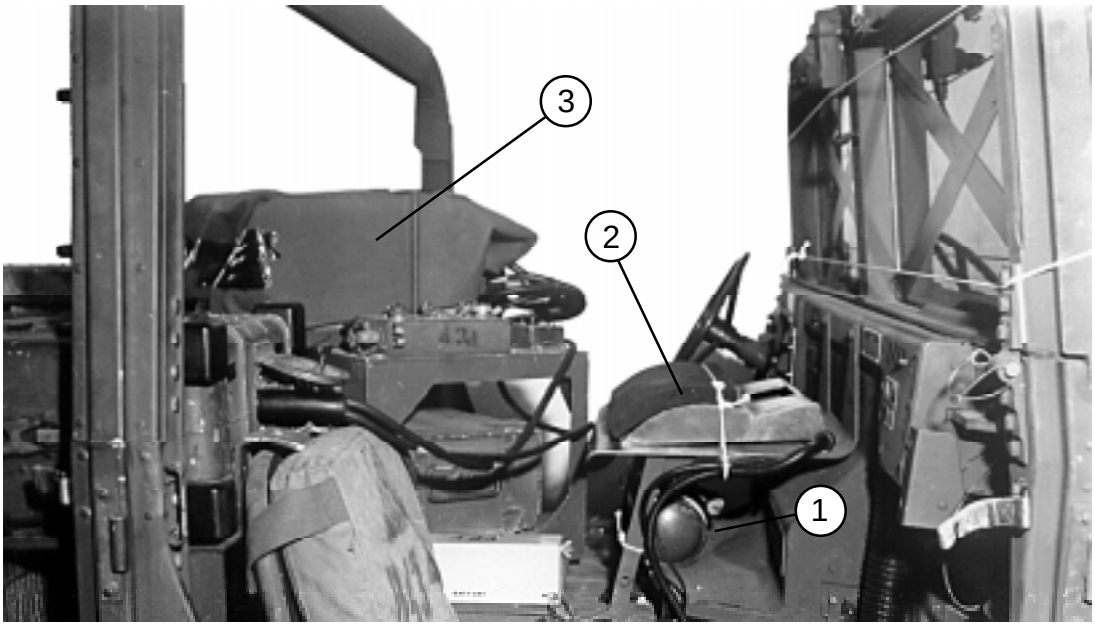
27 Close the tailgate, and secure it with 1/2-inch tubular nylon webbing.

28 Tape the snap hooks on the safety strap.

Figure 5-4. BCS andAccompanying Equipment Rigged in M998 Truck (continued)

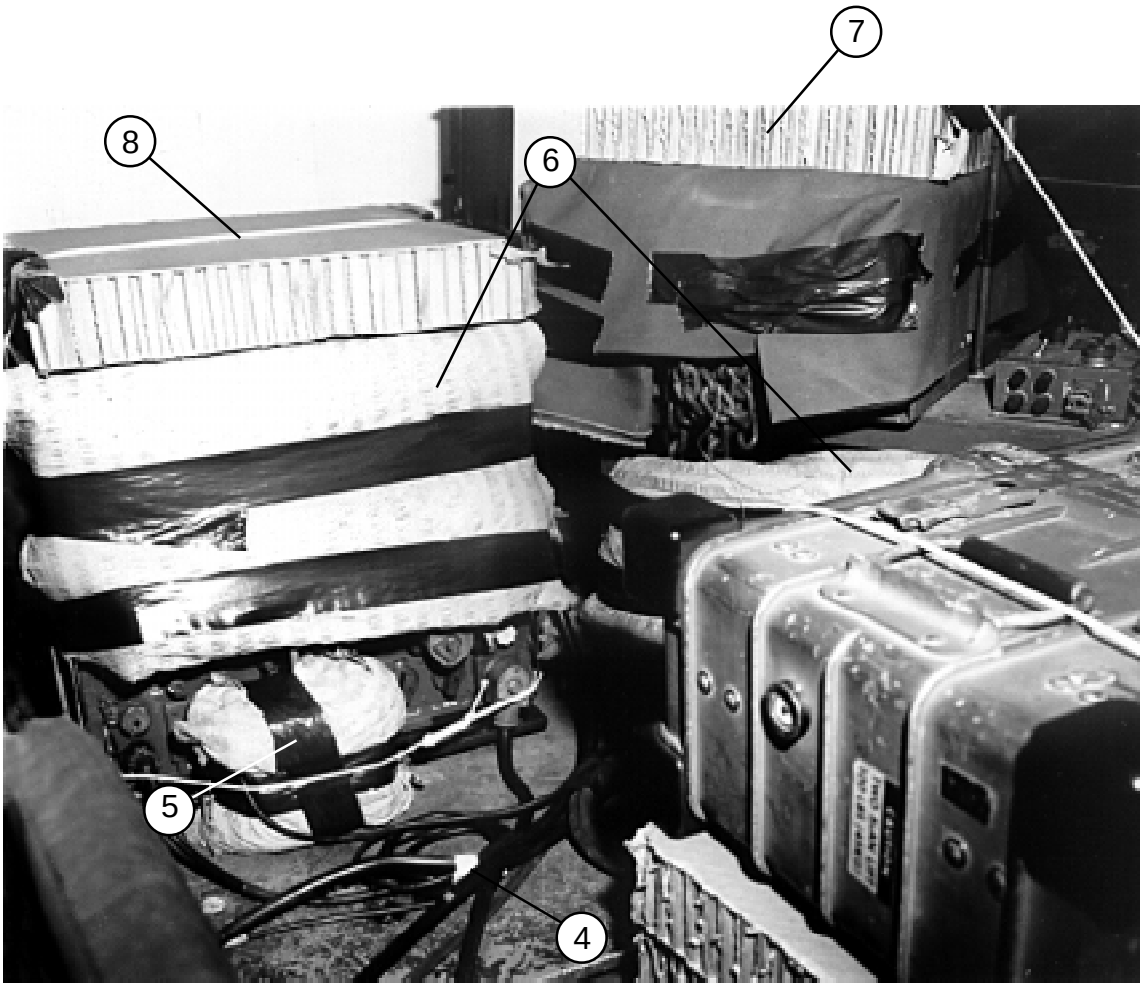
RIGGING AN/VSC-2 RADIOTELETYPE IN M998 TRUCK

5-6. Use the procedures shown in Figure 5-5 to rig the AN/VSC-2 radioteletype, two generators, and truck and crew equipment. This load weighs 1,373 pounds.



1. Tie the fire extinguisher to the radio mount supports with type III nylon cord.
2. Tie the radioteletype operator backrest to the radio mount with type III nylon cord.
3. Cover the crypto unit with cotton duck cloth, and tape the cloth in place.

Figure 5-5. AN/VSC-2 Radioteletype Rigged in M998 Truck



4 Roll and tape all loose cables.

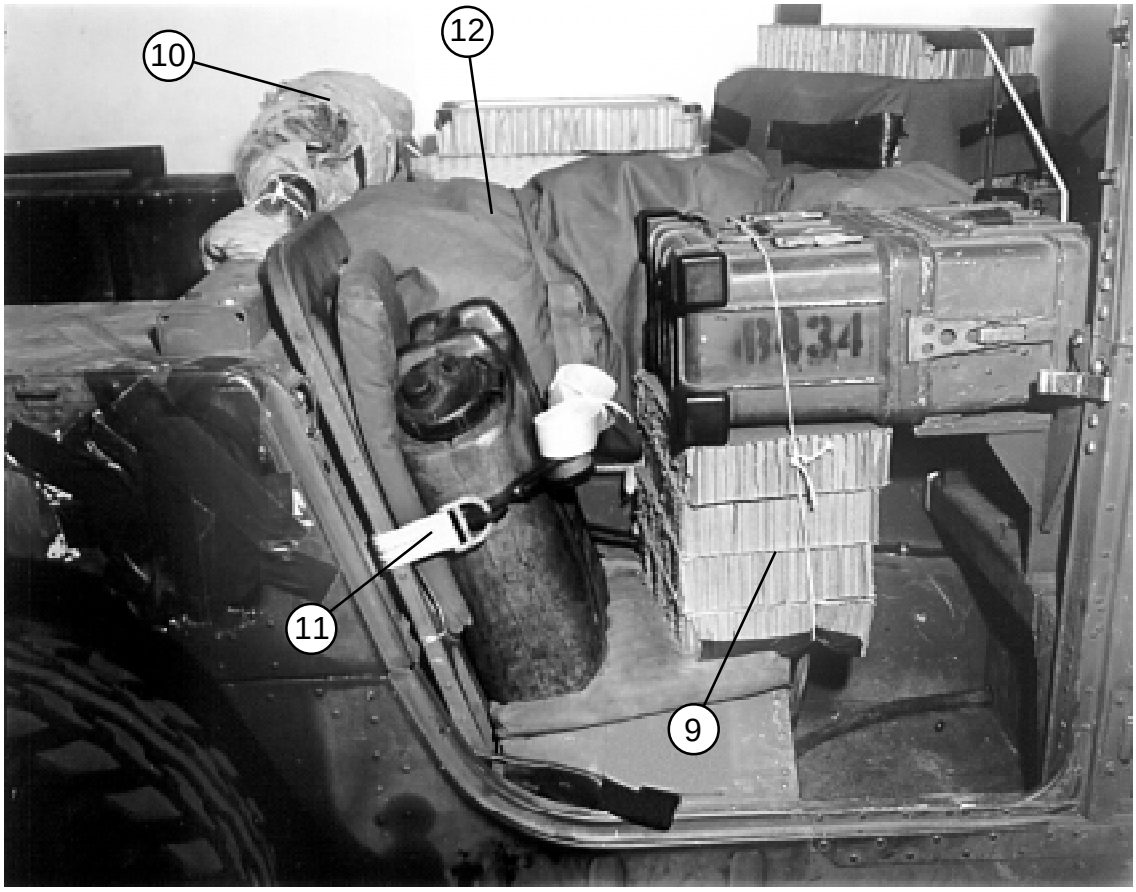
5 Pad the speaker with cellulose wadding taped in place. Tie the speaker to the lifting handles of the bottom radio with type III nylon cord.

6 Pad the upper radio controls with cellulose wadding taped in place.

7 Tape the edges of a 12- by15-inch piece of honeycomb. Tie the honeycomb over the crypto unit with 1/2-inch tubular nylon webbing.

8 Tape the edges of a 14- by 18-inch piece of honeycomb. Tie the honeycomb over the radio with type III nylon cord.

Figure 5-5. AN/VSC-2 Radioteletype Rigged in M998 Truck (continued)



9 Place four 10- by 16-inch pieces of honeycomb between the teletype cover and the seat cushion. Tape the bottom edges of the stack, and tie the stack to the teletype cover with type III nylon cord.

10 Detach the antenna from its mount, and remove the mount from the crossbar. Wrap the mount generously in cellulose wadding. Tape the cellulose wadding in place. Tie the antenna mount along the crossbar with four lengths of type III nylon cord.

11 Lash a filled plastic water can to the right rear seat back with a 15-foot lashing, a D-ring, and a load binder.

12 Lay the camouflage net bag between the rear seats and in the space between the teletype and radio sets. Secure it with a length of 1/2-inch tubular nylon webbing tied to the brace behind the driver's seat and to the crossbar behind the rear seats.

Figure 5-5. AN/VSC-2 Radioteletype Rigged in M998 Tuck (continued)