Airdrop of Supplies and Equipment: Rigging High-Mobility Multipurpose Wheeled Vehicles (HMMWV)

MARCH 2016

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Airdrop of Supplies and Equipment: Rigging High-Mobility Multipurpose Wheeled Vehicles (HMMWV)

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Preface

TM 4-48.17/MCRP 4-11.3M/TO 13C7-1-111 provides doctrinal guidance and direction for United States Army, United States Marine Corps, and United States Air Force units conducting aerial delivery operations. This manual provides information on how to prepare and rig Forward Area Refueling Equipment (FARE) and Advanced Aviation Forward Area Refueling Systems (AAFARS), and fuel drums. They are rigged for airdrop from a C-130 or C-17 aircraft.

The principal audience for TM 4-48.17/MCRP 4-11.3M/TO 13C7-1-111 is all members of the profession of arms. Commanders and staffs of Army, Marine Corps, and Air Force headquarters serving as joint task force or multinational headquarters should also refer to applicable joint or multinational doctrine concerning the range of military operations and joint or multinational forces. Trainers and educators throughout the Army, Marine Corps, and Air Force will also use this publication.

Commanders, staffs, and subordinates ensure that their decisions and actions comply with applicable United States, international, and in some cases host-nation laws and regulations. Commanders at all levels ensure that their Soldiers, Marines, and Airmen operate in accordance with the law of war and the rules of engagement. (See FM 27-10).

TM 4-48.17/MCRP 4-11.3M/TO 13C7-1-111 does not implement any STANAGs.

TM 4-48.17/MCRP 4-11.3M/TO 13C7-1-111 uses joint terms where applicable. Selected joint and Army terms and definitions appear in both the glossary and the text. Terms for which TM 4-48.17/MCRP 4-11.3M/TO 13C7-1-111 is the proponent publication (the authority) are italicized in the text and marked with an asterisk (*) in the glossary. Terms and definitions for which TM 4-48.17/MCRP 4-11.3M/TO 13C7-1-111 is the proponent publication are boldfaced in the text. For other definitions shown in the text, the term is italicized and the number of the proponent publication follows the definition.

TM 4-48.17/MCRP 4-11.3M/TO 13C7-1-111 applies to the Active Army, Army National Guard/Army National Guard of the United States, United States Army Reserve, the total force Marine Corps and Air Force unless otherwise stated.

The proponent of TM 4-48.17/MCRP 4-11.3M/TO 13C7-1-111 is the United States Army Quartermaster School. The preparing agency is the G-3 Doctrine Division, USACASCOM. Send comments and recommendations on DA Form 2028 (Recommended Changes to Publications and Blank Forms) to Commander, United States Army Combined Arms Support Command and Fort Lee, ATTN: ATCL-TS, 2221 A Avenue, Fort Lee, Virginia 23801 or submit an electronic DA Form 2028 by e-mail to: usarmy.lee.tradoc.mbx.lee-lee-cascom-doctrine@mail.mil. In addition to submission of DA Form 2028, provide same comments and recommendations in MilWiki for rapid dissemination to doctrine authors and for universal review at https://www.milsuite.mil.

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Introduction

Publication of TM 4-48.17/MCRP 4-11.3M/TO 13C7-1-111 (FM 10-500-23/TO 13C7-14-461; FM 4-20.117(FM 10-517)/MCRP 4-11.3M/TO 13C7-1-111; FM 4-20.166 (FM 10-500-66)/TO 13C7-25-71) Airdrop of Supplies and Equipment: Rigging High-Mobility Multipurpose Wheeled Vehicles (HMMWV) supersedes FM 10-500-23/TO 13C7-14-461 Airdrop of Supplies and Equipment: Rigging Communication Vehicles 31 Aug 1999 and FM 4-20.117(FM 10-517)/MCRP 4-11.3M/TO 13C7-1-111 Airdrop of Supplies and Equipment: Rigging High-Mobility Multipurpose Wheeled Vehicles (HMMWV) 1 October 2001 (RAR Change 1, 22 July 2005) and FM 4-20.166 (FM 10-500-66)/TO 13C7-25-71 Airdrop of Supplies and Equipment: Rigging 2- and 4-Litter Ambulance 30 May 2006. The grouping of the manuals has produced excess multi-service publication numbers. A single multi-service publication number will be retained on the new manual and the following remainder multi-service publication numbers will not be required/used: (TO 13C7-14-461; TO 13C7-25-71).

This revision to the TM publishing medium/nomenclature has been accomplished to comply with U.S. Army TRADOC doctrine restructuring requirements. The title is slightly changed and the content of the manual(s) is not identical to that of the superseded manual(s). There has been some change to procedural content in the main body. This special revision does not integrate any changes in Army doctrine since 31 Aug 1999/1 October 2001 (RAR Change 1, 22 July 2005)/30 May 2006 and does alter the publication’s original references. For the status of official Department of the Army (DA) publications, consult DA Pam 25-30, Consolidated Index of Army Publications and Blank Forms, at http://armypubs.army.mil/2530.html. DA Pam 25-30 is updated as new and revised publications, as well as changes to publications are published. For the content/availability of specific subject matter, contact the appropriate proponent.

DESCRIPTION OF ITEMS

- The HMMWV-series trucks that can be rigged using the procedures in the manual are listed below.

  - **M996 Ambulance**: The M996, 2-litter, armored ambulance weighs 7,180 pounds with the fuel tank no more than ¾ full. The vehicle is 203 inches long, 87 inches high and 86 inches wide. The body configuration makes other uses of this vehicle possible, such as specialized communication or command and control functions.

  - **M966 Tube Launched Optically Tracked Wire To Command Linked Guided Missile Set (TOW) Carriers, Armored.** The M966 truck weighs 6,051 pounds. Its length is 180 inches and its width is 85 inches. Its reduced height is 74 inches.

  - The M966A1 truck weighs 6,231 pounds. Its length is 180 inches and its width is 86 inches. Its reduced height is 74 inches.

  - **M997 Ambulance**: The M997 4-litter ambulance weighs 7,880 pounds with the fuel tank no more than ¾ full. The vehicle is 204 inches long, 99 inches high and 85 inches wide. The height restricts this load to the C-17 aircraft only.

  - **M998 Cargo/Troop Carriers**. The M998 truck weighs 5,200 pounds. It is 180 inches long and 85 inches wide. The reduced height of the truck is 54 inches. The M998A1 truck weighs 5,380 pounds. Its length is 180 inches and its width is 86 inches. The reduced height is 56 inches.

  - **M998 Cargo/Troop Carrier (Two Seater) with GRC/206 Air Force Pallet.** The M998 two seater is rigged with radio equipment GRC/206 Air Force pallet.

  - **M998 Cargo/Troop Carrier (Four Seater) with GRC/206 (Air Force Pallet.** The M998 four seater is rigged with radio equipment GRC/206 Air Force pallet.

  - **M1121 TOW Carrier, Armored.** The M1121 truck weighs 7,900 pounds. Its length is 180 inches and its width is 85 inches. Its reduced height is 74 inches.
• **M1025 Armament Carriers, Armored.** The M1025 truck weighs 5,960 pounds. Its 180 inches long and 85 inches wide. The reduced height of the truck is 74 inches.

• The M1025A1 truck weighs 6,140 pounds. Its length is 180 inches and its width is 86 inches. Its reduced height is 74 inches.

• The M1025A2 truck weighs 6,780 pounds. Its length is 191 inches and its width is 86 inches. Its reduced height is 74 inches.

• **The M1025A2 Armament Carrier (Modified), With Winch.** This is NOT the same carrier as the M1025A2. External and internal modifications have been made to support special operations. The M1025A2 (modified) carrier weighs 7,020 pounds. Its length is 191 inches and its width is 86 inches.

• The Ground Mobility Vehicle is a modified M1025. It has a winch, a rigid roof, and a turret to support weapons. It is rigged the same as the M998 truck except as noted. The truck is configured to carry a special operations load.

• **The M1026 Armament Carriers, With Winch.** The M1026 truck weighs 6,087 pounds. Its length is 186 inches and its width is 85 inches. Its reduced height is 74 inches.

• The M1026A1 truck weighs 6,267 pounds. Its length is 186 inches and its width is 86 inches. Its reduced height is 74 inches.

• **The M1026 Armament Carrier (Modified).** This is NOT the same carrier as the M1026. External and internal modifications have been made to support special operations. The M1026 (modified) carrier weighs 6,087 pounds. Its length is 185 inches and its width is 85 inches. The reduced height is 69 inches.

• **M1036 TOW Carrier, Armored With Winch.** The M1036 truck weighs 6,178 pounds. Its length is 186 inches and its width is 85 inches. Its reduced height is 74 inches.

• **M1037 S250 Shelter Carrier.** The M1037 truck weighs 5,425 pounds. Its 191 inches long and 85 inches wide. The reduced height, without the shelter, is 74 inches.

• **M1037 S250 Cargo/Troop Carrier (Modified), With Winch.** This is NOT the same carrier as the M1037. External and internal modifications have been made to support artillery operations. The M1037 (modified) is 185 inches long and is 85 inches long. The reduced height of the truck is 70 inches.

• **M1038 Cargo/Troop Carriers With Winch.** The M1038 truck weighs 5,327 pounds. It is 186 inches long and 85 inches wide. The reduced height of the truck is 54 inches.

• The M1038A2 truck weighs 5,507 pounds. Its length is 186 inches and its width is 86 inches. The reduced height is 56 inches.

• **M1042 S250 Shelter Carrier, With Winch.** The M1042 truck weighs 5,521 pounds. Its 197 inches long and 85 inches wide. The reduced height, without the shelter, is 54 inches.

• **M1043 Armament Carriers, With Supplemental Armor.** The M1043 truck weighs 6,411 pounds. Its 180 inches long and 85 inches wide. The reduced height of the truck is 74 inches.

• The M1043A1 truck weighs 6,591 pounds. Its 180 inches long and 86 inches wide. The reduced height of the truck is 74 inches.

• The M1043A2 truck weighs 7,320 pounds. Its 191 inches long and 86 inches wide. The reduced height of the truck is 74 inches.

• **M1044 Armament Carriers, With Supplemental Armor and Winch.** The M1044 truck weighs 6,411 pounds. Its 186 inches long and 85 inches wide. The reduced height of the truck is 74 inches.

• The M1044A1 truck weighs 6,718 pounds. Its 186 inches long and 86 inches wide. The reduced height of the truck is 74 inches.

• **M1045 Armament Carriers, With Supplemental Armor.** The M1045 truck weighs 6,438 pounds. Its 180 inches long and 85 inches wide. The reduced height of the truck is 74 inches.

• The M1045A1 truck weighs 6,618 pounds. Its 180 inches long and 86 inches wide. The reduced height of the truck is 74 inches.
• The M1045A2 truck weighs 7,258 pounds. Its 191 inches long and 86 inches wide. The reduced height of the truck is 74 inches.

• **M1046 TOW Carriers, With Supplemental Armor and Winch.** The M1046 truck weighs 6,565 pounds. Its 186 inches long and 85 inches wide. The reduced height of the truck is 74 inches.

• The M1046A1 truck weighs 6,745 pounds. Its 186 inches long and 86 inches wide. The reduced height of the truck is 74 inches.

• **M1097 Truck, Utility, Heavy Variant.** The M1097 truck weighs 5,600 pounds. Its 191 inches long and 86 inches wide. The reduced height of the truck is 54 inches.

• M1097A1 truck weighs 5,600 pounds. Its 191 inches long and 86 inches wide. The reduced height of the truck is 56 inches.

• M1097A2 truck weighs 5,900 pounds. Its 191 inches long and 86 inches wide. The reduced height of the truck is 56 inches. This truck may have a winch.

• **M1113 Truck, Utility, Expanded Capacity.** The M1113 truck weighs 6,190 pounds. It is 197 inches long and 86 inches wide. The reduced height of the truck is 56 inches. This truck may have a winch.

• **M1114 Armament Carrier Expanded Capacity, Up-Armored, With Winch.** The M1114 truck weighs 9,800 pounds. It is 197 inches long and 86 inches wide. The reduced height of the truck is 74 inches.

• **M1151 Armament Carrier Expanded Capacity.** The M1151 truck weighs 7,300 pounds. It is 193½ inches long and 86 inches wide. The reduced height of the truck is 77 inches.

• **M1151A1 Armament Carrier Expanded Capacity.** The M1151A1 is fitted with B2 armor kit, long range advanced scout surveillance system (LRAS3) and new doors.

• **M1165A1 General Purpose Vehicle.** The M1165A1 is fitted B3 Armor Kit, and is used as an Armored Command and Control.

• **M1167 Expanded CcapacityVehicle for the Tube Launched, Optically Tracked, Wire Command Data Link Guided TOW Missile Carrier.** The vehicle has an improved target acquisition system (ITAS) and an integrated armor package (IAP), which includes underbody and rocker armor, lower windscreen deflective armor and a TOW gunner’s protection kit (TGPK).

**SPECIAL CONSIDERATIONS**

• Special considerations for this manual are given below.

• The loads covered in this manual may include hazardous materials as defined in AFMAN 24-204(I)/TM 38-250/NAVSUP PUB 505/MCO P403019J/DLAI 4145.3. If included, the hazardous materials must be packaged, marked, and labeled as required by AFMAN 24-204(I) INTERSERVICE TM 38-250/NAVSUP PUB 505/MCO P403019J/DLAI 4145.3, Preparing Hazardous Materials for Military Shipments.

**CAUTION**

Only ammunition listed in TM 4-48.16 (FM 4-20.153)/MCRP 4-11.3B/TO 13C7-18-41 may be airdropped.

• A copy of this manual must be available to the joint airdrop inspectors during the before- and after-loading inspection.
CAUTION

The load weight may vary from the loads shown. Be sure that each load weight, parachute requirements, center of balance (CB), lashing effectiveness, and tip-off curve computed according to TM 4-48.02 (FM 4-20.102))//MCRP 4-11.3J/ NAVSEA SS400-AB-MMO-010 REV 1/TO13C7-1-5
Chapter 1

Rigging 1 1/4-Ton HMMWV Soft-Top Trucks For Low-Velocity Airdrop

DESCRIPTION OF LOAD

1-1. The unrigged M998 cargo/troop carrier (Figure 1-1) is described in Introduction. The HMMWV truck is rigged on a 16-foot type V platform for low-velocity airdrop. An accompanying load weighing a minimum of 800 pounds and a maximum of 2,000 pounds (2,500 pounds for the M1037 modified HMMWV, M1042, M1097, M1097A1, and M1097A2) must be rigged in the truck. The load requires two G-11 cargo parachutes. The following trucks can be rigged using the procedures given in this chapter: M998A1, M1038 and M1038A1, M1037 and M1037 modified, M1042, M1097, M1097A1, and M1097A2.

Figure 1-1. M998 Cargo Troop Carrier
PREPARING PLATFORM

1-2. Prepare a 16-foot, type V airdrop platform according to TM 10-1670-268-20&P/TO 13C7-52-22. Install tandem links and platform clevises according to TM 4-48.02 (FM 4-20.102))/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5 and as shown in Figure 1-2.

Step:
1. Inspect, or assemble and inspect, a 16-foot, type V platform as outlined in TM 10-1670-268-20&P/TO 13C7-52-22.
2. Install a tandem link assembly to the front of each platform side rail using holes 1, 2, and 3.
3. Install a tandem link assembly on the rear of each platform side rail using holes 30, 31, and 32.
4. Install a clevis on bushing 2 of each front tandem link.
5. Install a clevis on bushing 4 of each rear tandem link.
6. Starting at the front of each platform side rail, install clevises on the bushings bolted to holes 5, 15, 17 (double) 17A (triple), 20, 21, and 25.
7. Starting at the front of the platform, number the clevises bolted to the right side of the platform from 1 through 9, and those bolted to the left side from 1A through 9A. Number the clevises bolted to the 17th bushing 4 and 5. Number the triple clevises bolted to the 17A bushing 4A and 5A.
8. Label the tiedown rings according to TM 4-48.02 (FM 4-20.102))/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5.

Figure 1-2. Platform Prepared
PREPARING AND POSITIONING HONEYCOMB STACKS

1-3. Build the honeycomb stacks as shown in Figures 1-3 and 1-4. Position the stacks on the platform as shown in Figure 1-5.

1. Use an 80- by 24-inch piece of honeycomb to form a base.
2. Center and glue three 54- by 24-inch pieces of honeycomb on the base.
3. Place a 3/4- by 54- by 24-inch piece of plywood over the honeycomb placed in step 2 above.
4. Place one 54- by 24-inch piece of honeycomb on top of the plywood placed in step 3 above.
5. Center two 20- by 24-inch pieces of honeycomb on top of the honeycomb placed in step 4 above.
6. Place a 3/4- by 20- by 24-inch piece of plywood over the honeycomb placed in step 5 above.
7. Place one 20- by 24-inch piece of honeycomb on top of the plywood placed in step 6 above.

Figure 1-3. Stack 1 and 3 Prepared
Notes. 1. All measurements are given in inches.
2. This drawing is not drawn to scale.

① Glue three 43-by-26-inch pieces of honeycomb flush together to form a base.

② Center and glue three 43-by-18-inch pieces of honeycomb flush on the base.

③ Nail a 43-inch piece of 4-by-4-inch lumber parallel to each long side and 1 1/2 inches from each long edge of a 3/4-by-43-by-18 inch piece of plywood. Nail a second 3/4-by-43-by-18-inch piece of plywood to the lumber and flush with the bottom piece of plywood. Glue the wooden section of the stack flush on the honeycomb placed in step 2 above.

④ Make the cutout as shown in a 43-by-18-inch piece of honeycomb. Glue the honeycomb flush over the plywood.

Figure 1-4. Stack 2 Prepared
Notes. 1. All measurements are given in inches.
2. This drawing is not drawn to scale.

<table>
<thead>
<tr>
<th>Stack Number</th>
<th>Position on Platform</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Centered 17 inches from the front edge of the platform.</td>
</tr>
<tr>
<td>2</td>
<td>Centered 86 inches from the front edge of the platform.</td>
</tr>
<tr>
<td>3</td>
<td>Centered 147 inches from the front edge of the platform.</td>
</tr>
</tbody>
</table>

Figure 1-5. Honeycomb Stacks Positioned on Platform
Chapter 1

PREPARING THE TRUCK

1-4. Prepare the vehicle as shown in Figure 1-6 through Figure 1-12.

1. Prepare the fuel tank IAW AFMAN INTERSERVICE 24-204(I)/TM 38-250/NAVSUP PUB 505/MCO P4030.19I/DLAI 4145.3.

**CAUTION**

A full fuel tank does not allow for fuel expansion, and is a danger to aircraft and crew.

2. Tie the fuel filler cap to the body of the truck with type III nylon cord.

3. Tape the fuel filler opening.

4. Place a piece of 12 inch cloth-backed tape over the fuel tank drain plug.

5. Make sure the batteries and battery compartment comply with AFMAN 24-204(I)/TM 38-250/NAVSUP PUB 505/MCO P4030.19I/DLAI 4145.3. (not shown)

6. Stow the truck on-vehicular equipment according to TM 9-2320-280-10/TO 36A12-1A-2091-1/TM 2320-10/6. (not shown)

Figure 1-6. Fuel, Fuel Tank Filler Cap and Opening and Batteries Prepared
① Remove all doors, covers, and supporting bows. (not shown)
② Tape the windshield glass on both sides in an X.
③ Remove and pad the mirrors. Secure them under the driver's seat with type III nylon cord. (not shown)
④ Tie the engine start switch in the engine stop position with type I, 1/4-inch cotton webbing.
⑤ Tie the steering wheel to the seat frame in two places with type III nylon cord, or use the retractable steering wheel locking cable. If the locking cable is used, secure it to the steering wheel with type III nylon cord, not a padlock. (not shown)
⑥ Tie the emergency brake handle in the off position with type III nylon cord.
⑦ Place the transmission and four-wheel drive levers in the neutral position.
⑧ Tie the seat cushions to the seat frames with type III nylon cord. Fold the passenger seats in four-door trucks and secure them with the pins provided.
⑨ Tie the fire extinguisher in place with two lengths of type III nylon cord.
⑩ Tape all instrument panel gauges.

Figure 1-7. Cab Prepared
① Secure communications equipment in its mount with chains and padlocks.

② Tie the equipment to its mount with 1-inch tubular nylon webbing. Pad the radio handset with cellulose wadding and tie the handset to the mount with type III nylon cord (not shown).

③ Remove antennas, pad and tape the ends and secure the antennas to the roofs interior above the interior cab doors with type III nylon cord. (not shown)

Figure 1-8. Communications Equipment Secured and Prepared
Note. Prepare the front of soft-top trucks with foldable windshields as shown.

1. Cover the breather cap with one layer of felt taped in place.

2. Pad with two pieces of felt placed on either side of the center bulge in the hood.

3. Place a 78- by 4-inch piece of honeycomb with the top edge of the windshield aligned with the front edge of the honeycomb. Make indentations in the honeycomb where the bumper pads and wipers make contact. (not shown)

4. Fold the windshield down over the honeycomb and felt placed in steps 2 and 3 above. Replace the securing pins in the brackets (not shown). Cover the rear side of the folded windshield with a 78- by 19-inch piece of honeycomb. Make a cutout to allow for the wiper motor.

Figure 1-9. Front of the Truck Prepared
Notes. 1. All measurements are given in inches.
2. This drawing is not drawn to scale.

5 Tape all lights and reflectors. Tape the hood latches.
6 On trucks with a brush guard, place a 83- by 14-inch piece of honeycomb in front of the brush guard and secure it in place with type III nylon cord. (not shown)
7 Center a 78- by 4-inch piece of honeycomb along the front edge of the hood.
8 Place two 83- by 36-inch pieces of honeycomb, with cutouts as shown, on the hood. Tie one length of type III nylon cord over the honeycomb to the front coil springs on each side. Tie two lengths of type III nylon cord from the airlift bracket to the front tie-down bracket on each side. Tape the honeycomb where the cord passes over the edges.
9 Drill a ½-inch hole 6 inches from the bottom and 1 inch from each end of a ¾- by 78- by 19-inch piece of plywood, round the front corners and place over the honeycomb in step 4.
10 Secure the plywood with two lengths of ½-inch tubular nylon webbing tied form the airlift bracket to the windshield secure pin on each side.

Figure 1-9. Front of the Truck Prepared (continued)
11 Secure the plywood to the windshield with ½-inch tubular nylon webbing tied through the drilled holes in the plywood and to the mirror brackets (shown), or to the door hinges.

12 Cover the instrument panel with a 23- by 11-inch piece of honeycomb. Make a cutout to allow for the turn signal lever. Tape the honeycomb in place.

13 Cover the steering wheel with a 24- by 44-inch piece of honeycomb. Tape the edges and tie the honeycomb to the seat frame with type III nylon cord. Tie the honeycomb at the top to the windshield securing bracket and to the defroster control knob with type III nylon cord.

14 On trucks equipped with the brush guard, cover the front side with an 83- by 14-inch piece of honeycomb, tied in place with type III nylon cord.

Figure 1-9. Front of the Truck Prepared. (continued)
① Tape all sharp edges of the pioneer tools.
② Pad the ax head with cellulose wadding.
③ Open the tool rack. Place the tools in the rack, and secure them with the straps provided and with type III nylon cord. For the M1037 (modified) truck, secure the tools with 1/2-inch tubular nylon webbing. (not shown)
④ Close and latch the tool rack. Tie the rack in place with type III nylon cord.

Figure 1-10. Pioneer Tool Kit Secured
1 Pad the lower control arms on the front and rear of the truck with cellulose wadding taped in place.

2 Pass a 15-foot lashing over the right frame rail, under the oil pan, and over the left frame rail. Make sure the lashing goes over the exhaust pipe and then under it. Make sure the wires running along the frame rail are to the outside of the lashing. Place a 12- by 12-inch piece of honeycomb and a 2- by 6- by 16-inch piece of lumber between the lashing and the oil pan. Fasten the lashing with a D-ring and a load binder.

3 Install another lashing just to the rear of the lashing installed in step 2 above. Route the lashing the same way.

Figure 1-11. Underside of Truck Prepared
Notes. 1. All measurements are given in inches.
   2. This drawing is not drawn to scale.

1 Drill 1/2-inch holes 2 inches in from each corner of a ¾- by 24- by 42-inch piece of plywood. Center the plywood over the cab with one 24-inch edge resting on the bottom ledge of the windshield frame and the other end on the B-pillar. Secure the plywood to the B-pillar and to convenient points in the cab with 1/2-inch tubular nylon webbing. This plywood will be used as a platform for the release.

2 For trucks with radios that extend higher than the top of the instrument panel, drill 1/2-inch holes 2 inches from each end of a 24-inch piece of 4- by 4-inch lumber. Place this lumber between the plywood and the top of the instrument panel, the holes facing vertically. Tie the lumber to the radio mounts and the plywood with 1/2-inch tubular nylon webbing.

Figure 1-12. Truck Body Prepared
Notes. 1. All measurements are given in inches.
   2. This drawing is not drawn to scale.

If the wood cargo body sides are installed, pad all sharp edges with cellulose wadding taped in place.

Pass a 15-foot lashing around the upper control arm behind a front wheel and through its own D-ring. Repeat for the other side of the truck (not shown).

Pass a 15-foot lashing around the upper control arm behind a rear wheel and through its own D-ring. Repeat for the other side of the truck (not shown).

Tape five 6-by-10-inch pieces of honeycomb to a 2-by-6-by-150-inch piece of lumber spaced as shown and place on vehicle. Repeat for the second side board (not shown).

Bring the lashings positioned in steps 3 and 4 around the boards two turns. Secure the lashings from the left and right sides of the truck together with D-rings and load binders (not shown).

Figure 1-12. Truck Body Prepared (continued)
STOWING ACCOMPANYING LOAD

1-5. Stow the accompanying load as shown in Figure 1-13. The accompanying load shown consists of 16 boxes of ammunition and truck equipment weighing 1,800 pound.

CAUTION
Only ammunition listed in TM 4-48.16 (FM 4-20.153)/MCRP 4-11.3B/TO 137-18-41 may be airdropped. Package, mark, and label hazardous material according to AFMAN 24-204(I)/INTERSERVICE TM 38-250/NAVSUP PUB 505/MCO P403019J/DLAI 4145.3..

① Form two 30-foot lashings according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/ NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5. Lay the lashings lengthwise across the cargo bed, passing them through the left and right tie-down rings in the cargo floor.

② Lay two 15-foot lashings widthwise across the cargo bed passing them through the center and rear tie-down rings in the cargo bed floor.

Figure 1-13. Accompanying Load Stowed and Secured
③ Cover the cargo floor using two pieces of honeycomb to make a 40- by 80-inch layer.

④ Space four 15-foot lashings evenly across the width of the cargo bed.

⑤ Place 16 boxes of ammunition on the honeycomb as shown.

**Note:** Leave 3 inches of space between any accompanying load and the tailgate to prevent damage to the truck.

*Figure 1-13. Accompanying Load Stowed and Secured (Continued)*
⑥ Bind the boxes together with the four side-to-side lashings placed in step 4. Secure each lashing with a D-ring and a load binder.

⑦ Secure the lashings placed in step 2 with D-rings and load binders.

⑧ Join the left front and right rear 30-foot lashings placed in step 1 with two D-rings and a load binder. Pass the lashings through the box handles wherever possible.

⑨ Join the left rear and right front 30-foot lashings placed in step 1 in the same way as step 8 above.

⑩ Close the tailgate. Secure it to the chain hook brackets with a single length of 1/2-inch tubular nylon webbing.

Figure 1-13. Accompanying Load Stowed and Secured (Continued)
11. Tie the truck tarpaulin bows together with type III nylon cord. Place them on the boxes.
12. Place the truck doors on the boxes (not shown). (not shown)
13. Fold the truck tarpaulin over the doors and bows.
14. Tie the items placed in steps 11, 12, and 13 above to the lashings and to the box handles with type III nylon cord.

Figure 1-13. Accompanying Load Stowed and Secured (Continued)
1-6. Install the optional drive-off aids on the platform as shown in Figure 1-14.

*Note.* The use of drive-off aids are optional

1. Attach one end of a drive-off aid to the outside rear tie-down ring on one side of the platform with a type V clevis assembly. Repeat for the other side.

2. Extend the drive-off aids to the front of the platform. Pass them over the base layers of stacks 1 and 3. Secure the drive-off aids to adjacent clevises and tie-down rings with type I, 1/4-inch cotton webbing.

*Figure 1-14. Drive-off*
LIFTING AND POSITIONING TRUCK AND INSTALLING OPTIONAL DRIVE-OFF AIDS

1-7. Install the lifting slings as shown in Figure 1-15. Position the truck on the honeycomb stacks as shown in Figure 1-16. Attach the drive-off aids to the wheels of the truck as shown in Figure 1-17, and according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/ NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5.

1 Attach a 9-foot (2-loop), type XXVI nylon webbing sling to each airlift bracket with a medium clevis.

2 Attach a 12-foot (2-loop), type XXVI nylon webbing sling to each rear lifting shackle with a medium clevis. Route the slings through the openings on each side of the tailgate.

Figure 1-15. Lifting Slings Installed and Truck Positioned
① Position the truck on the honeycomb stacks with the suspension cross-members of the truck resting squarely on stacks 1 and 3.

② Be sure that the frame cross member rests squarely on the 6-inch part of the honeycomb at the front of stack.

Note: If the rear wheels of the truck cannot be turned when the truck is resting on the honeycomb stacks, lift the truck slightly to allow the drive-off aids to be installed.
① Place a drive-off aid under the right wheel. Holding the drive-off aid against the wheel, turn the wheel counter-clockwise until the drive-off aid is under slight tension. Repeat for the other side, but turn the wheel clockwise.

② Tie the end loop of each drive-off aid to the nearest cross-piece with a double length of type I, ¼-inch cotton webbing.

③ Remove the lifting slings. (not shown)

Figure 1-17. Drive-off Aids Attached to Wheels
LASHING THE TRUCK

1-8. Lash the truck to the platform according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/ NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5 and as shown in Figures 1-18 and 1-19.

<table>
<thead>
<tr>
<th>Lashing Number</th>
<th>Tiedown Clevis Number</th>
<th>Instructions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>Through tie-down bracket behind the left rear coil spring.</td>
</tr>
<tr>
<td>2</td>
<td>1A</td>
<td>Through tie-down bracket behind the right rear coil spring.</td>
</tr>
<tr>
<td>3</td>
<td>2</td>
<td>Through left rear lifting shackle.</td>
</tr>
<tr>
<td>4</td>
<td>2A</td>
<td>Through right rear lifting shackle.</td>
</tr>
<tr>
<td>5</td>
<td>3</td>
<td>Around left rear lower control arm.</td>
</tr>
<tr>
<td>6</td>
<td>3A</td>
<td>Around right rear lower control arm.</td>
</tr>
<tr>
<td>7</td>
<td>4</td>
<td>Through the tie-down bracket in front of the left rear coil spring.</td>
</tr>
<tr>
<td>8</td>
<td>4A</td>
<td>Through the tie-down bracket in front of the right rear coil spring.</td>
</tr>
<tr>
<td>9</td>
<td>5 and 5A</td>
<td>Pass a 15-foot lashing through clevis 5A and through its own D-ring. Pass the lashing through the hole in honeycomb stack 2. Attach the lasting to clevis 5 with a load binder.</td>
</tr>
</tbody>
</table>

Figure 1-18. Lashings 1 through 9 Installed
Lashing | Tiedown | Clevis | Instructions
--- | --- | --- | ---
10 | 6 | | Pass lashing: Through the tiedown bracket behind the left front coil spring.
11 | 6A | | Through the tiedown bracket behind the right front coil spring.
12 | 7 | | Around the left lower control arm.
13 | 7A | | Around the right lower control arm.
14 | 9 | | Through the tie-down bracket on the end of the left frame rail.
15 | 9A | | Through the tie-down bracket on the end of the right frame rail.

Figure 1-19. Lashings 10 through 15 Installed
INSTALLING AND SAFETY TIEING THE SUSPENSION SLINGS

1-9. Install and safety tie the suspension slings according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5 and as shown in Figure 1-20.

① Attach a 16-foot (2-loop), type XXVI nylon suspension sling to each tandem link with a large clevis.

② Raise the slings and install the deadman’s tie 6 to 8 inches above the load.

③ Position a 6- by 36-inch piece of felt around each front suspension sling 40 inches from the suspension clevis. Cover the padding completely with tape, extending the tape 6 inches above and below the padding.

④ Position a 6- by 36-inch piece of felt around each rear suspension sling 36 inches from the suspension clevis. Secure the padding as described in step 3 above.

⑤ Safety-tie each sling to the body side boards with a length of type III nylon cord.

**Figure 1-20. Suspension Slings Installed**
STOWING CARGO PARACHUTES

1-10. Stow the parachutes according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/ NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5 and as shown in Figure 1-21.

1 Prepare, position, and stow two G-11B cargo parachutes according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/ NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5.

2 Install the front cargo parachute restraint strap according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/ NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5. Use tiedown clevises 8 and 8A.

3 Install a single-knife parachute release strap on the restraint straps on each side according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/ NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5. (not shown)

Figure 1-21. Parachutes Stowed
INSTALLING THE RELEASE SYSTEM

1-11. Install the release assembly according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/ NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5 and as shown in Figure 1-22.

1. Prepare and install the release assembly according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/ NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5. Place the release on a 24- by 42- by ¾ piece of plywood placed over the driver compartment.

2. Tie the parachute riser extensions together with a length of type 1, ¼-inch cotton webbing.

3. S-fold any slack in the suspension slings. Tie the folds in place with type 1, ¼-inch cotton webbing.

Figure 1-22. M-1 Cargo Parachute Release Assembly Installed
INSTALLING THE EXTRACTION SYSTEM

1-12. Install the extraction force transfer coupling (EFTC) extraction system according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/ NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5, and as shown in Figure 1-23.

① Install the components of the extraction force transfer coupling according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/ NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5. Use the forward mounting holes for the extraction force transfer coupling actuator mounting brackets.

② Install an actuator, with a 16-foot cable, to the extraction force transfer coupling mounting brackets; route and safety tie the cable according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/ NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5.

③ Install the extraction parachute jettison system according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5 if applicable. (not shown)

Figure 1-23. Extraction System Installed
④ Install the latch assembly on the extraction parachute jettison system or the platform extraction bracket and connect the cable according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5.

⑤ Attach a 9-foot (2-loop), type XXVI nylon sling to be used as a deployment line, fold the excess and secure the folds in place according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5.

⑥ Safety tie the cable to tiedown ring D8 with type I, ¼-inch cotton webbing.

Figure 1-23. Extraction System Installed (Continued)
INSTALLING PROVISIONS FOR EMERGENCY RESTRAINTS
1-13. Install the provisions for emergency restraints on the load according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/ NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5.

PLACING EXTRACTION PARACHUTE
1-14. Select the extraction parachute and extraction line needed using the requirements in table in TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/ NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5. Rig the extraction line in an extraction line bag according to TM 10-1670-286-20/TO 13C5-2-41. Place the extraction parachute and extraction line on the load for installation in the aircraft. Select a drogue parachute and a drogue line if using C-17/C-130J and place them on the load as well.

MARKING RIGGED LOAD
1-15. Mark the rigged load according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/ NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5 and as shown in Figure 1-24. Complete Shipper's Declaration for Dangerous Goods. If the load varies from the one shown, the weight, height, center of balance (CB), and parachute requirements must be recomputed.

EQUIPMENT REQUIRED
1-16. Use the equipment listed in Table 1-1 on page 1-33 and continuing on page 1-34 to rig the load.
CAUTION

Make the final rigger inspection required by AR 59-4 and TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5. before the load leaves the rigging site.

RIGGED LOAD DATA

Note: This load includes a 1,800 pound accompanying load.

Weight................................................................. 9,750 pounds
Maximum Weight .................................................. 11,500 pounds
Height (with two G-11B parachutes)........................... 86 inches
Width.................................................................. 108 inches
Length.................................................................. 215 inches
Length with extraction parachute jettison system Light .... 226 inches
Overhang: Front (vehicle)......................................... 0 inches
              Rear extraction force transfer coupling .......... 18 inches
              Rear extraction parachute jettison system Light.. 30 inches
Center of Balance (CB) (from front edge of platform) ....... 95 inches

Figure 1-24. M998 Cargo/Troop Carrier Rigged for Low-Velocity Airdrop
Table 1-1. Equipment Required for Rigging the M998 Cargo/Troop Carrier on a 16-Foot Platform for Low Velocity Airdrop

<table>
<thead>
<tr>
<th>National Stock Number</th>
<th>Item</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>8040-00-273-8713</td>
<td>Adhesive paste, 1-gallon.</td>
<td>As required</td>
</tr>
<tr>
<td>4030-00-090-5354</td>
<td>Clevis, suspension, 1-inch (large)</td>
<td>5</td>
</tr>
<tr>
<td>4030-00-678-8562</td>
<td>Clevis, suspension, 3/4-inch (medium)</td>
<td>4</td>
</tr>
<tr>
<td>4020-00-240-2146</td>
<td>Cord, nylon, type III, 550-pound</td>
<td>As required</td>
</tr>
<tr>
<td>1670-00-434-5785</td>
<td>Coupling, Airdrop Extraction Force Transfer, with 16-foot cable</td>
<td>1</td>
</tr>
<tr>
<td>8135-00-664-6958</td>
<td>Cushioning material (Cellulose wadding)</td>
<td>As required</td>
</tr>
<tr>
<td>1670-01-475-1990</td>
<td>Extraction Parachute Jettison System Light</td>
<td>1</td>
</tr>
<tr>
<td>8305-00-958-3685</td>
<td>Felt</td>
<td>As required</td>
</tr>
<tr>
<td>1670-01-183-2678</td>
<td>Leaf, extraction line (line bag) for C-130</td>
<td>2</td>
</tr>
<tr>
<td>1670-01-183-2678</td>
<td>Leaf, extraction line (line bag) for C-17/C130J</td>
<td>4</td>
</tr>
<tr>
<td>1670-01-062-6313</td>
<td>60-foot (3-loop), type XXVI (for C-130/J)</td>
<td>1</td>
</tr>
<tr>
<td>1670-01-107-7651</td>
<td>140-foot (3-loop), type XXVI (for C-17)</td>
<td>1</td>
</tr>
<tr>
<td>1670-01-064-4452</td>
<td>60-foot (1-loop), type XXVI (for C-17/C-130J), (drogue line)</td>
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</tr>
<tr>
<td>1670-01-493-6418</td>
<td>Link assembly, two-point, 3 3/4-inch, small:</td>
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</tr>
<tr>
<td></td>
<td>Lumber:</td>
<td></td>
</tr>
<tr>
<td>5510-00-220-6196</td>
<td>2- by 6- by 96-inch</td>
<td>2 (14' board)</td>
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<tr>
<td>5510-00-220-6274</td>
<td>4- by 4- by 96-inch</td>
<td>2</td>
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<tr>
<td>5315-00-010-4659</td>
<td>Nail, steel, common, 8D</td>
<td>As required</td>
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<tr>
<td>1670-00-753-3928</td>
<td>Pad, energy-dissipating (honeycomb)</td>
<td>10 sheets</td>
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<tr>
<td>1670-01-016-7841</td>
<td>Parachute, cargo, G-11B</td>
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</tr>
<tr>
<td></td>
<td>Parachute, cargo, extraction:</td>
<td></td>
</tr>
<tr>
<td>1670-01-063-3716</td>
<td>22-foot</td>
<td>1</td>
</tr>
<tr>
<td>1670-01-063-3715</td>
<td>15-foot (C-17/C130J) (DES)</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Platform, airdrop, type V, 16-foot:</td>
<td></td>
</tr>
<tr>
<td>1670-01-353-8424</td>
<td>Bracket, assembly, extraction</td>
<td></td>
</tr>
<tr>
<td>1670-01-353-8425</td>
<td>Bracket, assembly, coupling</td>
<td></td>
</tr>
<tr>
<td>1670-01-162-2372</td>
<td>Clevis assembly (type V)</td>
<td>20</td>
</tr>
<tr>
<td>1670-01-162-2381</td>
<td>Tandem link assembly (Multipurpose link)</td>
<td>6</td>
</tr>
<tr>
<td>5530-00-128-4981</td>
<td>Plywood, 3/4-inch</td>
<td>3 sheets</td>
</tr>
</tbody>
</table>
Table 1-1. Equipment Required for Rigging the M998 Cargo/Troop Carrier on a 16-Foot Platform for Low Velocity Airdrop (continued)

<table>
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<tr>
<th>National Stock Number</th>
<th>Item</th>
<th>Quantity</th>
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<tbody>
<tr>
<td>1670-01-097-8816</td>
<td>Release, cargo parachute, M-1</td>
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<tr>
<td></td>
<td>Sling, cargo, airdrop: For Deployment</td>
<td></td>
</tr>
<tr>
<td>1670-01-062-6304</td>
<td>9-foot (2-loop), type XXVI</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>For Lifting</td>
<td></td>
</tr>
<tr>
<td>1670-01-062-6304</td>
<td>9-foot (2-loop), type XXVI</td>
<td>2</td>
</tr>
<tr>
<td>1670-01-062-6303</td>
<td>12-foot (2-loop), type XXVI</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>For Suspension</td>
<td></td>
</tr>
<tr>
<td>1670-01-063-7761</td>
<td>16-foot (2-loop), type XXVI</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>For Riser Extension</td>
<td></td>
</tr>
<tr>
<td>1670-01-062-6302</td>
<td>20-foot (2-loop), type XXVI</td>
<td>1</td>
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<tr>
<td>1670-00-998-0116</td>
<td>Strap, parachute, release, single-knife</td>
<td>1</td>
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<tr>
<td>7501-00-266-5016</td>
<td>Tape, adhesive, 2-inch</td>
<td>As required</td>
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<tr>
<td>1670-00-937-0271</td>
<td>Tiedown assembly, 15-foot</td>
<td>31</td>
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<tr>
<td></td>
<td>D-rings, heavy duty, 10,000-pound</td>
<td>29</td>
</tr>
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<td>Binder, load, 10,000-pound</td>
<td>27</td>
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<tr>
<td>1670-01-483-8259</td>
<td>Towplate release mechanism (H-block) (for C-17)</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Towplate release mechanism (H-block) (for C-130J)</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Webbing:</td>
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<tr>
<td>8305-00-268-2411</td>
<td>Cotton, 1/4-inch, type I</td>
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<tr>
<td>8305-00-082-5752</td>
<td>Nylon, tubular, 1/2-inch</td>
<td>As required</td>
</tr>
<tr>
<td>8305-00-559-6871</td>
<td>Nylon, type VIII</td>
<td>As required</td>
</tr>
</tbody>
</table>
Chapter 2  
Rigging Armament Carriers For Low-Velocity Airdrop  

SECTION I - RIGGING ARMAMENT CARRIERS ON A 16-FOOT PLATFORM

DESCRIPTION OF LOAD

2-1. The unrigged M1025 armament carrier (Figure 2-1) is described in Introduction. The truck is rigged on a 16-foot type V platform for low-velocity airdrop. An accompanying load weighing a minimum of 800 pounds and a maximum of 2,000 pounds. The load requires two G-11 cargo parachutes. The following trucks can be rigged using the procedures given in this chapter: M1025A1, M 2025A2, and m1025A2 modified, M1026, M1026 (modified and M1026A1, M966 and M966A1, M1036, M1043, M1043A1, and M1043A2, M1044, M1044A1, M1045, M1045A1, and M1045A2, M1046, M1046A1, M1121.

Figure 2-1. M1025 Armament Carrier
PREPARING PLATFORM

2-2. Prepare a 16-foot, type V airdrop platform according to TM 10-1670-268-20&P/TO 13C7-52-22. Install tandem links and platform clevises according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5 and as shown in Figure 1-2.

PREPARING AND POSITIONING HONEYCOMB STACKS

2-3. Build the honeycomb stacks as shown in Figures 1-3 and 1-4. Position the stacks on the platform as shown in Figure 1-5 and according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5.

PREPARING THE TRUCK

2-4. Prepare truck as described in Figures 1-6, 1-7 (do not do steps 1 and 3), Figure 1-8, Figure 1-9 does not apply to closed body vehicles. Continue preparing the vehicle as shown Figure 1-10 through 1-11. Finish preparing the closed-body HMMWV’s as shown in Figures 2-2 and 2-3 omit step 3.

Notes. 1. All measurements are given in inches. 2. This drawing is not drawn to scale.

Build the turret housing support as shown using 8d nails.

Figure 2-2. Turret Support Built and Placed
③ Close turret cover and secure it with the fasteners provided. (not shown)

④ Center the support under the turret housing with the front end of the support toward the front of end of the truck. Tie the support in place with two lengths of type III nylon cord.

Figure 2-2. Turret Support Built and Placed (continued)
Notes.  1. All measurements are given in inches.
   2. This drawing is not drawn to scale.

1. Tape all lights and reflectors.
2. On trucks with a brush guard, place an 83- by 14-inch piece of honeycomb in front of the brush guard and secure it in place with type III nylon cord.
3. Center a 78- by 4-inch piece of honeycomb along the front edge of the hood.
4. Place two 36- by 83-inch pieces of honeycomb, with cutouts as shown, on the hood. Tie the honeycomb in place with type III nylon cord to a hood latch, passed through the grille and tied to the other hood latch. Tape the honeycomb where the cord passes over the edges.
5. Place two 83- by 12-inch pieces of honeycomb just behind the honeycomb placed in step 2. Tape the top outside edges. Secure the honeycomb the hood latches with type III nylon cord.
6. Tape the hood latches.
7. Lower all side windows and open the truck doors (not shown). Place a 21- by 83-inch piece of honeycomb against the windshield. Tie a length of type III nylon cord around the honeycomb and the inside of the windshield frame.

Figure 2-3. Truck Body Prepared
⑧ Cover the roof with four 82-by-36-inch pieces of honeycomb. Tape the upper 36-inch edges. Tie four lengths of type III nylon cord over the honeycomb and through the door openings.

⑨ Pass 15-foot lashings through the door openings on each side of the truck and close the doors. Cut a 45-degree bevel in each end of two pieces of 2-by-4-by-69 1/2-inch lumber. Rest the long side of each piece of lumber over the window openings and even with the front edge of the windshield frame. Pass the free ends of the lashings down over the lumber and through the windows. Secure the lashings inside the truck.

⑩ Pad the upper rear corner of the door and the end of the rain gutter with a 12-by-12-inch piece of felt taped in place.

⑪ Tape the front and rear ends of the lumber to the windshield frame and to the padding over the rear gutter.

⑫ Pad the mirrors with cellulose wadding taped in place. Fold the mirrors inward and tie them together through the cab of the truck.

Figure 2-3. Truck Body Prepared (continued)
STOWING ACCOMPANYING LOAD

2-5. Stow the accompanying load of 800 to 2,000 pounds as shown in Figure 2-4. Ensure the accompanying load complies with TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-11. The maximum restraint capacity of each cargo area tie-down ring is 2,000 pounds. The accompanying load of ammunition shown weighs 930 pounds.

CAUTION

Only ammunition listed in TM 4-48.16 (FM 4-20.153)/MCRP 4-11.3B/TO 137-18-41 may be airdropped. Package, mark, and label hazardous material according to AFMAN 24-204/TM 38-250.

1. Stow two water cans in their holders, and secure them with the straps provided.
2. Lay a 36- by 50-inch piece of honeycomb in the cargo area. Make cutouts in the honeycomb for the fixtures on the floor.
3. Lay tow 15-foot lashings lengthwise on the honeycomb.

Figure 2-4. Accompanying Load Stowed in Truck
4. Place the accompanying load (20-millimeter ammunition shown) on the honeycomb.

5. Secure the pre-positioned lashings on the front side of the boxes with D-rings and load binders.

6. Run a 15-foot lashing around the boxes through their carrying handles. Secure the lashing with a D-ring and load binder.

Figure 2-4. Accompanying Load Stowed in Truck (Continued)
⑦ Lay a 36- by 40-inch piece of honeycomb flush over the boxes of ammunition.

⑧ Lay a 3/4- by 36- by 40-inch piece of plywood flush over the honeycomb.

⑨ Run a 30-foot lashing through the right rear tie-down ring. Bring both ends over the boxes diagonally. Run the lashing through the left front tie-down ring. Secure the lashing over the load.

⑩ Repeat step 9 using the left rear and right front tie-down rings.

*Note:* Stow truck equipment such as antennas on top of the load. Tie the equipment securely.

⑪ Close and latch the tailgate and hatch. Fold and tape the cargo straps. Run a length of 1/2-inch tubular nylon webbing under the cargo straps and through the hatch cover handle. Tie to the tailgate hook brackets.

*Figure 2-4. Accompanying Load Stowed in Truck (continued)*
LIFTING AND POSITIONING TRUCK AND INSTALLING OPTIONAL DRIVE-OFF AIDS

2-6. Install the lifting slings as shown in Figure 1-15. Position the truck on the honeycomb stacks as shown in Figure 1-16. Attach the drive-off aids to the wheels of the truck as shown in Figure 1-17, and according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/ NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5.

LASHING THE TRUCK

2-7. Lash the truck to the platform according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/ NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5 and as shown in Figures 1-18 and 1-19.

INSTALLING AND SAFETY TIEING THE SUSPENSION SLINGS

2-8. Install and safety tie the suspension slings according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/ NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5 and as shown in Figure 2-5.

1. Attach a 16-foot (2-loop), type XXVI nylon suspension sling to each tandem link with a large clevis.
2. Raise the slings and install the deadman's tie 6 to 8 inches above the load.
3. Position a 6- by 36-inch piece of felt around each front suspension sling starting at 40 inches from the suspension clevis. Cover the padding completely with tape 6 inches above and below the padding.
4. Position a 6- by 36-inch piece of felt around each rear suspension sling 36 inches from the suspension clevis. Secure the padding as described in step 3 above.

Figure 2-5. Suspension Slings Installed
STOWING CARGO PARACHUTES

2-9. Stow the parachutes according to TM 4-20.102/MCRP 4-11.3J/ NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5 and as shown in Figure 1-21.

INSTALLING THE RELEASE SYSTEM

2-10. Install the release assembly according to TM 4-20.102/MCRP 4-11.3J/ NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5 and as shown in Figure 2-6.

1 Prepare and install the release assembly according to TM 4-20.102/MCRP 4-11.3J/ NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5 on the honeycomb in front of the parachutes.

2 Tie a length of type 1, ¼-inch cotton webbing to the right rear suspension sling below the deadman’s tie. Bring the webbing diagonally over the load to the left front. Pull it taut, and tie it to the left front sling below the deadman’s tie.

3 Tie the left rear and right front suspension slings together in the same way as step 2.

4 S-fold any slack in the suspension slings. Tie the folds in place with type 1, ¼-inch cotton webbing.

Figure 2-6. M-1 Cargo Parachute Release Assembly Installed
Rigging Armament Carriers For Low-Velocity Airdrop

INSTALLING THE EXTRACTION SYSTEM

2-11. Install the EFTC extraction system according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5 and as shown in Figure 1-23. Install the Extraction Parachute Jettison System (EPJS) light according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5 if applicable.

INSTALLING PROVISIONS FOR EMERGENCY RESTRAINTS

2-12. Install the provisions for emergency restraints on the load according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5.

PLACING EXTRACTION PARACHUTE

2-13. Select the extraction parachute and extraction line and using the requirements in table in TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5. Rig the extraction line in an extraction line bag according to TM 10-1670-286-20/TO 13C5-2-41. Place the extraction parachute and extraction line on the load for installation in the aircraft. Select a drogue parachute and a drogue line if using C-17/C-130J and place them on the load.

MARKING RIGGED LOAD

2-14. Mark the rigged load according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5 and as shown in Figure 2-7. Complete Shipper's Declaration for Dangerous Goods. If the load varies from the one shown, the weight, height, CB, and parachute requirements must be recomputed.

EQUIPMENT REQUIRED

2-15. Use the equipment listed in Table 2-1 on page 2-13 and continuing on page 2-14 to rig this load.
CAUTION

Make the final rigger inspection required by AR 59-4 and TM 4-48.02 /MCRP 4-11.3J/ NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5 before the load leaves the rigging site.

RIGGED LOAD DATA

Weight: Load Shown .................................................................9,820 pounds
Maximum load allowed .........................................................10,500 pounds
Height (with two G-11B parachutes) ......................................91 inches
Width .......................................................................................108 inches
Length ....................................................................................215 inches
Length with extraction parachute jettison system (EPJS) Light 226 inches
Overhang: Front (vehicle) .........................................................0 inches
   Rear (extraction force transfer coupling) ......................... 18 inches
   Rear (EPJS Light) .................................................................30 inches
Center of Balance (CB) (from front edge of platform) .......... 96 inches

Figure 2-7. M1025 Armament Carrier Rigged for Low-Velocity Airdrop
### Table 2-1. Equipment Required for Rigging the M1025 Armament Carrier on a 16-Foot Platform for Low Velocity Airdrop

<table>
<thead>
<tr>
<th>National Stock Number</th>
<th>Item</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>8040-00-273-8713</td>
<td>Adhesive paste, 1-gallon</td>
<td>As required</td>
</tr>
<tr>
<td>4030-00-090-5354</td>
<td>Clevis, suspension, 1-inch (large)</td>
<td>5</td>
</tr>
<tr>
<td>4030-00-678-8562</td>
<td>Clevis, suspension, 3/4-inch (medium)</td>
<td>4</td>
</tr>
<tr>
<td>4020-00-240-2146</td>
<td>Cord, nylon, type III, 550-pound</td>
<td>As required</td>
</tr>
<tr>
<td>1670-00-434-5785</td>
<td>Coupling, Airdrop Extraction Force Transfer, w/16-foot. cable</td>
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</tr>
<tr>
<td>8135-00-664-6958</td>
<td>Cushioning material (Cellulose wadding)</td>
<td>As required</td>
</tr>
<tr>
<td>1670-01-475-1990</td>
<td>Extraction Parachute Jettison System Light</td>
<td>1</td>
</tr>
<tr>
<td>8305-00-958-3685</td>
<td>Felt</td>
<td>As required</td>
</tr>
<tr>
<td>1670-01-183-2678</td>
<td>Leaf, extraction line (line bag) (for C-130)</td>
<td>2</td>
</tr>
<tr>
<td>1670-01-183-2678</td>
<td>Leaf, extraction/drogue line (line bag) (for C-17/C130J)</td>
<td>4</td>
</tr>
<tr>
<td>1670-01-062-6313</td>
<td>60-foot (3-loop), type XXVI (for C-130/J)</td>
<td>1</td>
</tr>
<tr>
<td>1670-01-107-7651</td>
<td>140-foot (3-loop), type XXVI (for C-17)</td>
<td>1</td>
</tr>
<tr>
<td>1670-01-064-4452</td>
<td>60-foot (1-loop), type XXVI (for C-17/C-130J), (drogue line)</td>
<td>1</td>
</tr>
<tr>
<td>1670-01-493-6418</td>
<td>Link assembly, two-point, 3 3/4-inch, small:</td>
<td>2</td>
</tr>
<tr>
<td>5510-00-550-6969</td>
<td>1- by 6- by 48-inch</td>
<td>1</td>
</tr>
<tr>
<td>5510-00-220-6146</td>
<td>2- by 4- by 96-inch</td>
<td>3</td>
</tr>
<tr>
<td>5510-00-220-6196</td>
<td>2- by 6- by 72-inch</td>
<td>1</td>
</tr>
<tr>
<td>5510-00-220-6274</td>
<td>4- by 4- by 96-inch</td>
<td>1</td>
</tr>
<tr>
<td>5315-00-010-4659</td>
<td>Nail, steel, common, 8D</td>
<td>As required</td>
</tr>
<tr>
<td>1670-00-753-3928</td>
<td>Pad, energy-dissipating (honeycomb)</td>
<td>10 sheets</td>
</tr>
<tr>
<td>1670-01-016-7841</td>
<td>Parachute, cargo, G-11B</td>
<td>2</td>
</tr>
<tr>
<td>1670-01-063-3716</td>
<td>22-foot</td>
<td>1</td>
</tr>
<tr>
<td>1670-01-063-3715</td>
<td>15-foot (for C-17/C130J) (DES)</td>
<td>1</td>
</tr>
<tr>
<td>1670-01-353-8424</td>
<td>Bracket, assembly, extraction</td>
<td>1</td>
</tr>
<tr>
<td>1670-01-353-8425</td>
<td>Bracket, assembly, coupling</td>
<td>1</td>
</tr>
<tr>
<td>1670-01-162-2372</td>
<td>Clevis assembly (type V)</td>
<td>20</td>
</tr>
<tr>
<td>1670-01-162-2381</td>
<td>Tandem link assembly (Multipurpose link)</td>
<td>4</td>
</tr>
<tr>
<td>5530-00-128-4981</td>
<td>Plywood, 3/4-inch</td>
<td>2 sheets</td>
</tr>
</tbody>
</table>
Table 2-1. Equipment Required for Rigging the M1025 Armament Carrier on a 16-Foot Platform for Low Velocity Airdrop (continued)

<table>
<thead>
<tr>
<th>National Stock Number</th>
<th>Item</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1670-01-097-8816</td>
<td>Release, cargo parachute, M-1</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Sling, cargo, airdrop:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>For Deployment</td>
<td></td>
</tr>
<tr>
<td>1670-01-062-6304</td>
<td>9-foot (2-loop), type XXVI</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>For Lifting</td>
<td></td>
</tr>
<tr>
<td>1670-01-062-6304</td>
<td>9-foot (2-loop), type XXVI</td>
<td>2</td>
</tr>
<tr>
<td>1670-01-062-6303</td>
<td>12-foot (2-loop), type XXVI</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>For Suspension</td>
<td></td>
</tr>
<tr>
<td>1670-01-063-7761</td>
<td>16-foot (2-loop), type XXVI</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>For Riser Extension</td>
<td></td>
</tr>
<tr>
<td>1670-01-062-6302</td>
<td>20-foot (2-loop), type XXVI</td>
<td>1</td>
</tr>
<tr>
<td>1670-00-998-0116</td>
<td>Strap, parachute, release, single-knife</td>
<td>1</td>
</tr>
<tr>
<td>7501-00-266-5016</td>
<td>Tape, adhesive, 2-inch</td>
<td>As required</td>
</tr>
<tr>
<td>1670-00-937-0271</td>
<td>Tiedown assembly, 15-foot</td>
<td>22</td>
</tr>
<tr>
<td></td>
<td>D-rings, heavy duty, 10,000-pound</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>Binder, load, 10,000-pound</td>
<td>20</td>
</tr>
<tr>
<td>1670-01-483-8259</td>
<td>Towplate release mechanism (H-block) (for C-17)</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Towplate release mechanism (H-block) (for C-130J)</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Webbing:</td>
<td></td>
</tr>
<tr>
<td>8305-00-268-2411</td>
<td>Cotton, 1/4-inch, type I</td>
<td>As required</td>
</tr>
<tr>
<td>8305-00-082-5752</td>
<td>Nylon, tubular, 1/2-inch</td>
<td>As required</td>
</tr>
<tr>
<td>8305-00-559-6871</td>
<td>Nylon, type VIII</td>
<td>As required</td>
</tr>
</tbody>
</table>
SECTION II - RIGGING ARMAMENT CARRIERS ON A 20-FOOT PLATFORM WITH ADDITIONAL ACCOMPANYING AMMUNITION LOAD

DESCRIPTION OF LOAD

2-16. The unrigged M1025 armament carrier is described in Chapter 1. The truck and an accompanying load are rigged on a 20-foot type V platform for low-velocity airdrop. A load weighing a minimum of 800 pounds and a maximum of 2,000 pounds must be rigged in the truck. The load requires three G-11 cargo parachutes. The armament carriers listed on paragraph 2-1 can be rigged using the procedures in this section.

PREPARING PLATFORM

2-17. Prepare a 20-foot, type V airdrop platform according to TM 10-1670-268-20&P/TO 13C7-52-22. Install four tandem links, two suspension links and 32 load tie-down clevises according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/ NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5 and as shown in Figure 2-8.

Step:

1. Install tandem (front and rear) and suspension (middle) links on the platform side rail using holes 1, 2, 3, 29, 30, 31, 38, 39, and 40.

2. Install a clevis on bushing 1 of each front tandem link, bushing 4 of each middle suspension link and bushings 1, 3 and 4 of each rear tandem link.

3. Starting at the front of the platform, install clevises on each platform side rail using the bushings bolted on holes 5, 15, 17(double) 17A(triple), 20, 21, 32, 33, 34, 35, and 37.

4. Starting at the front of the platform, number the clevises bolted to the right side of the platform from 1 through 16, and those bolted to the left side from 1A through 16A. Number the clevises installed on the 17th bushings 5 and 5A. Number the clevises bolted to these clevises 4 and 4A.

5. Label the tiedown rings according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/ NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5.

Figure 2-8. Platform Prepared
PREPARING AND POSITIONING HONEYCOMB STACKS

2-18. Build honeycomb stacks 1 through 3 as shown in Figures 1-3 and 1-4. Glue two 36- by 60-inch pieces of honeycomb flush together to make stack 4. Position the stacks on the platform as shown in Figure 2-9 and according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5.

Notes.
1. All measurements are given in inches.
2. This drawing is not drawn to scale.

<table>
<thead>
<tr>
<th>Stack Number</th>
<th>Position on Platform</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Centered 17 inches from the front edge of the platform.</td>
</tr>
<tr>
<td>2</td>
<td>Centered 86 inches from the front edge of the platform.</td>
</tr>
<tr>
<td>3</td>
<td>Centered 147 inches from the front edge of the platform.</td>
</tr>
<tr>
<td>4</td>
<td>Centered 8 inches from the rear edge of the platform</td>
</tr>
</tbody>
</table>

Figure 2-9. Honeycomb Stacks Positioned on Platform
RIGGING ACCOMPANYING LOADS ON THE PLATFORM AND IN THE TRUCK

2-19. The accompanying load shown is fourteen boxes of 20-millimeter ammunition. Any load of similar weight and configuration can be rigged on the platform. Rig this accompanying load on the platform as shown in Figure 2-10. Rig the accompanying load in the truck according as shown in Figure 2-4. Make sure any accompanying loads meet the restrictions and requirements as outlined in TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5.

CAUTION
Ammunition in TM 4-48.16 (FM 4-20.153)/MCRP 4-11.3B/TO 13C7-18-41 may be airdropped. Package, label, and mark hazardous material according to AFMAN 24-204(I)/TM 38-250/NAVSUP PUB 505/MCO P4030.19H/DLAI 4145.3.

1. Form two 30-foot lashings and lay them side by side on the honeycomb as shown
2. Set 14 boxes of 20-millimeter ammunition on top of the lashings and honeycomb. Secure the lashings with D-rings and load binders.
3. Run a 30-foot lashing around the boxes, passing the lashing through the carrying handles and secure with D-rings and load binders.

Figure 2-10. Accompanying Load Stowed on Platform
Notes. 1. All measurements are given in inches.  
2. This drawing is not drawn to scale.

④ Construct two endboards of ¾- by 27- by 60-inch plywood as shown.
⑤ Center an endboard against each end of the stack. Pad the cutouts with cellulose wadding taped in place.
⑥ Center a 30-foot lashing on the front endboard and pass the ends through the upper slots. Pass the lashing though clevises 15 and 15A and bring the ends back through the upper slots in the front endboard. Secure the lashing against the front endboard with two D-rings and load binder.
⑦ Center a 30-foot lashing on the rear endboard and pass the ends through the upper slots. Pass the lashing though clevises 9 and 9A and bring the ends back through the upper slots in the rear endboard. Secure the lashing against the rear endboard with two D-rings and load binder.

Figure 2-10. Accompanying Load Stowed on Platform (continued)
Center a 30-foot lashing on the front end board and pass the ends through the lower slots. Pass the lashing through clevises 16 and 16A and bring the ends back through the lower slots in the front end board. Secure the lashing against the front end board with two D-rings and a load binder.

Center a 30-foot lashing on the rear end board and pass the ends through the lower slots. Pass the lashing through clevises 10 and 10A and bring the ends back through the lower slots in the rear end board. Secure the lashing against the rear end board with two D-rings and a load binder.

Center a 30-foot lashing on top of the boxes. Pass the ends of the lashing through clevises 12 and 12A, and back over to the tops of the boxes. Secure the lashing with two D-rings and a load binder.

Center a 30-foot lashing on top of the boxes. Pass the ends of the lashing through clevises 14 and 14A, and back over to the tops of the boxes. Secure the lashing with two D-rings and a load binder.

Figure 2-10. Accompanying Load Stowed on Platform (continued)
PREPARING THE TRUCK

2-20. Prepare truck as described in Figures 1-6, 1-7 (do not do steps 1 and 3), Figure 1-8, Figure 1-9 does not apply to closed body vehicles. Continue preparing the vehicle as shown Figures 1-10 and 1-11. Finish preparing the closed-body HMMWV’s as shown in Figures 2-2 and 2-3 (do not do step 3).

INSTALLING OPTIONAL DRIVE-OFF AIDS

2-21. Install drive-off aids on the platform as shown in Figure 2-11, and according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5.

1. Pass a 45-inch length of type V or 1-inch tubular nylon webbing through tie-down ring A1, through the end loop of a drive-off aid, and around the second bushing of the right tandem link. Knot the webbing according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5.

2. Repeat step 1 for the left side, using tie-down ring B1 and the second bushing of the left tandem link.

3. Extend the drive-off aids to the rear, over stacks 1 and 3. Secure the drive-off aids to bushings and clevises with type I, 1/4-inch cotton webbing.

Figure 2-11. Drive-Off Aids Installed on Platform
LIFTING AND POSITIONING TRUCK AND INSTALLING OPTIONAL DRIVE-OFF AIDS

2-22. Install the lifting slings as shown in Figure 1-15. Position the truck on the honeycomb stacks as shown in Figure 2-12. Attach the drive-off aids to the wheels of the truck as shown in Figure 1-17, Figure 2-12, and according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5.

① Lift the truck and place over top the honeycomb stacks and so that the rear of the truck is aligned with the front edge of the platform.

② Wrap the drive-off aids around the front wheels before setting the truck down on the honeycomb stacks.

③ Be sure that the suspension cross members rest securely on stacks 1 and 3. Be sure that the frame cross member rests securely on the 6-inch part of the honeycomb at the top of stack 2.

Figure 2-12. Truck Positioned on Platform
LASHING THE TRUCK

2-23. Lash the truck to the platform according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/ NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5 and as shown in Figures 2-13 and 2-14.

<table>
<thead>
<tr>
<th>Lashing Number</th>
<th>Tiedown Clevis Number</th>
<th>Instructions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>Pass lashing: Through tie-down bracket behind the left rear coil spring.</td>
</tr>
<tr>
<td>2</td>
<td>1A</td>
<td>Through tie-down bracket behind the right rear coil spring.</td>
</tr>
<tr>
<td>3</td>
<td>2</td>
<td>Through left rear lifting shackle.</td>
</tr>
<tr>
<td>4</td>
<td>2A</td>
<td>Through right rear lifting shackle.</td>
</tr>
<tr>
<td>5</td>
<td>3</td>
<td>Around left rear lower control arm.</td>
</tr>
<tr>
<td>6</td>
<td>3A</td>
<td>Around right rear lower control arm.</td>
</tr>
<tr>
<td>7</td>
<td>4</td>
<td>Through the tie-down bracket in front of the left rear coil spring.</td>
</tr>
<tr>
<td>8</td>
<td>4A</td>
<td>Through the tie-down bracket in front of the right rear coil spring.</td>
</tr>
<tr>
<td>9</td>
<td>5 and 5A</td>
<td>Pass a 15-foot lashing through clevis 5A and through its own D-ring. Pass the lashing through the hole in honeycomb stack 2. Attach the lasting to clevis 5 with a load binder.</td>
</tr>
</tbody>
</table>

Figure 2-13. Lashings 1 through 9 Installed
Lashing Number | Tiedown Clevis Number | Instructions
--- | --- | ---
10 | 6 | Pass lashing: Through the tiedown bracket behind the left front coil spring.
11 | 6A | Through the tiedown bracket behind the right front coil spring.
12 | 7 | Around the left lower control arm.
13 | 7A | Around the right lower control arm.
14 | 9 | Through the tie-down bracket on the end of the left frame rail.
15 | 9A | Through the tie-down bracket on the end of the right frame rail.

Figure 2-14. Lashings 10 through 15 Installed
INSTALLING AND SAFETY TIEING THE SUSPENSION SLINGS

2-24. Install, safety tie and pad the suspension slings according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5 and as shown in Figures 2-15.

1. Attach a 9-foot (2-loop), type XXVI nylon sling to each front tandem link with a large clevis. Join a second 9-foot (2-loop) type XXVI nylon sling to each front suspension sling with a 3¾-inch two-point link. Pad the link with felt taped in place.

2. Attach a 12-foot (2-loop), type XXVI nylon sling to each rear tandem link with a large clevis. Join a 3-foot, (2-loop), Type XXVI nylon sling to the 12-foot sling with a 3¾-inch two point link. Pad the link with felt taped in place.

3. Place both ends of a 3-foot (2-loop), type XXVI nylon sling in the bell of a large clevis. Bolt the clevis to the center suspension links. Join a 12-foot (2-loop), type XXVI nylon sling to the 3-foot sling with a large clevis, placing the bell of the clevis in the 3-foot sling. Repeat for the left side.

4. Join the center and rear suspension slings together at their free ends with a three-point link. Attach a 3-foot (2-loop), Type XXVI nylon sling to the remaining point of the 3-point link on each side. Attach the front, center, and rear suspension slings to the crane hook and pull the slings taut (not shown).

Figure 2-15. Suspension Slings Installed, Safety Tied and Padded
1 Safety tie the suspension slings with the deadman’s tie according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/ NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5.

2 Wrap the front suspension slings with a layer of felt from 64 to 96 inches above the platform. Tape the felt in place. Extend the tape 3 inches beyond the ends of the felt.

3 Use the procedure given in step 7 above to pad the center suspension slings from 38 to 74 inches above the platform.

Figure 2-15. Suspension Slings Installed, Safety Tied and Padded (continued)
STOWING CARGO PARACHUTES

2-25. Stow the cargo parachutes according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/ NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5 and as shown in Figure 2-16.

1. Secure three 30- by 60-inch pieces of honeycomb flush over the containers with type III nylon cord.

2. Prepare, position, and stow three G-11B cargo parachutes according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/ NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5.

3. Install the cargo parachute restraint straps according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/ NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5. Use tiedown clevises 11, 11A and 13 and 13A.

4. Install a multi-cut parachute release strap on the restraint straps on each side according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/ NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5. (not shown)

Figure 2-16. Cargo Parachutes Stowed and Restrained
INSTALLING THE RELEASE SYSTEM

2-26. Install the release assembly according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/ NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5 and as shown in Figure 2-17.

1 Prepare and install the release assembly according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/ NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5 centered on the honeycomb on the truck roof.

2 S-fold any slack in the suspension slings. Tie the folds in place with type 1, ¼-inch cotton webbing.

3 Tie the riser extensions together with type l, ¼-inch cotton webbing.

Figure 2-17. M-1 Cargo Parachute Release Assembly Installed
INSTALLING THE EXTRACTION SYSTEM

2-27. Install the EFTC extraction system according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5 and as shown in Figure 2-18.

1. Install the components of the extraction force transfer coupling according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5. Use the rear mounting holes for the extraction force transfer coupling actuator mounting brackets.

2. Install an actuator, with a 20-foot cable, to the extraction force transfer coupling mounting brackets; route and safety tie the cable according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5.

3. Install the extraction parachute jettison system Light according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5 if applicable. (not shown)

Figure 2-18. Extraction System Installed
4 Install the latch assembly on the extraction parachute jettison system light or the platform extraction bracket and connect the cable according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5.

5 Attach a 9-foot (2-loop), type XXVI nylon sling to be used as a deployment line, fold the excess and secure the folds in place according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5.

6 Safety tie the cable to tiedown ring D8 with type I, ¼-inch cotton webbing.

Figure 2-18. Extraction System Installed (continued)
INSTALLING PROVISIONS FOR EMERGENCY RESTRAINTS

2-28. Install the provisions for emergency restraints on the load according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/ NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5.

PLACING EXTRACTION PARACHUTE

2-29. Select the extraction parachute and extraction line and using the requirements in table in TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/ NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5. Rig the extraction line in an extraction line bag according to TM 10-1670-286-20/TO 13C5-2-41. Place the extraction parachute and extraction line on the load for installation in the aircraft. Select a drogue parachute and a drogue line if using C-17/C-130J and place them on the load.

MARKING RIGGED LOAD

2-30. Mark the rigged load according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/ NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5 and as shown in Figure 2-19. Complete Shipper’s Declaration for Dangerous Goods. If the load varies from the one shown, the weight, height, CB, and parachute requirements must be recomputed.

EQUIPMENT REQUIRED

2-31. Use the equipment listed in Table 2-2 on page 2-32 and continuing on page 2-33 to rig this load.
CAUTION

Make the final rigger inspection required by AR 59-4 and TM 4-48.02/MCRP 4-11.3/M/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5 before the load leaves the rigging site.

RIGGED LOAD DATA

Weight: Load Shown.......................................................... 11,740 pounds

Maximum load allowed...................................................... 12,100 pounds

Height (with two G-11B parachutes)................................. 91 inches

Width................................................................................. 108 inches

Length............................................................................... 265 inches

Length with extraction parachute jettison system (EPJS) Light 295 inches

Overhang: Front (vehicle).................................................... 0 inches

Rear (extraction force transfer coupling)......................... 18 inches

Rear (EPJS Light)................................................................. 30 inches

Center of Balance (CB) (from front edge of platform)......... 112 inches

Figure 2-19. M1025 Armament Carrier Rigged on a 20-Foot for Low-Velocity Airdrop
Table 2-2. Equipment Required for Rigging the M1025 Armament Carrier on a 20-Foot Platform for Low Velocity Airdrop

<table>
<thead>
<tr>
<th>National Stock Number</th>
<th>Item</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>8040-00-273-8713</td>
<td>Adhesive paste, 1-gallon</td>
<td>As required</td>
</tr>
<tr>
<td>4030-00-090-5354</td>
<td>Clevis, suspension, 1-inch (large)</td>
<td>9</td>
</tr>
<tr>
<td>4030-00-678-8562</td>
<td>Clevis, suspension, 3/4-inch (medium)</td>
<td>4</td>
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<tr>
<td>4020-00-240-2146</td>
<td>Cord, nylon, type III,</td>
<td>As required</td>
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<tr>
<td>1670-00-434-5787</td>
<td>Coupling, Airdrop Extraction Force Transfer, w/20-foot cable</td>
<td>1</td>
</tr>
<tr>
<td>8135-00-664-6958</td>
<td>Cushioning material (Cellulose wadding)</td>
<td>As required</td>
</tr>
<tr>
<td>1670-01-475-1990</td>
<td>Extraction Parachute Jettison System Light</td>
<td>1</td>
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<tr>
<td>8305-00-958-3685</td>
<td>Felt,</td>
<td>As required</td>
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<tr>
<td>1670-01-183-2678</td>
<td>Leaf, extraction line (line bag) (for C-130)</td>
<td>2</td>
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<tr>
<td>1670-01-183-2678</td>
<td>Leaf, extraction/drogue line (line bag) (for C-17/C130J)</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Line extraction:</td>
<td></td>
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<tr>
<td>1670-01-062-6313</td>
<td>60-foot (3-loop), type XXVI (for C-130/J)</td>
<td>1</td>
</tr>
<tr>
<td>1670-01-107-7651</td>
<td>140-foot (3-loop), type XXVI (for C-17)</td>
<td>1</td>
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<tr>
<td>1670-01-064-4452</td>
<td>60-foot (1-loop), type XXVI (for C-17/C-130J), (drogue line)</td>
<td>1</td>
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<tr>
<td>1670-01-493-6418</td>
<td>Link assembly, two-point, 3¾-inch, small:</td>
<td>2</td>
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<tr>
<td>Lumber:</td>
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<td></td>
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<tr>
<td>5510-00-550-6969</td>
<td>1- by 6- by 48-inch</td>
<td>1</td>
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<tr>
<td>5510-00-220-6146</td>
<td>2- by 4- by 96-inch</td>
<td>2</td>
</tr>
<tr>
<td>5510-00-220-6196</td>
<td>2- by 6- by 72-inch</td>
<td>4</td>
</tr>
<tr>
<td>5510-00-220-6274</td>
<td>4- by 4- by 96-inch</td>
<td>2</td>
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<tr>
<td>5315-00-010-4659</td>
<td>Nail, steel, common, 8D</td>
<td>As required</td>
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<tr>
<td>1670-00-753-3928</td>
<td>Pad, energy-dissipating (honeycomb)</td>
<td>10 sheets</td>
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<tr>
<td>1670-01-016-7841</td>
<td>Parachute, cargo, G-11B</td>
<td>3</td>
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<tr>
<td></td>
<td>Parachute, cargo, extraction:</td>
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</tr>
<tr>
<td>1670-01-063-3716</td>
<td>22-foot</td>
<td>1</td>
</tr>
<tr>
<td>1670-01-063-3715</td>
<td>15-foot (for C-17/C130J) (DES)</td>
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<tr>
<td>Platform, airdrop, type V, 16-foot:</td>
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<td></td>
</tr>
<tr>
<td>1670-01-353-8424</td>
<td>Bracket, assembly, extraction</td>
<td>1</td>
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<tr>
<td>1670-01-353-8425</td>
<td>Bracket, assembly, coupling</td>
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</tr>
<tr>
<td>1670-01-162-2372</td>
<td>Clevis assembly (type V)</td>
<td>33</td>
</tr>
<tr>
<td>1670-01-162-2381</td>
<td>Tandem link assembly (Multipurpose link)</td>
<td>6</td>
</tr>
<tr>
<td>5530-00-128-4981</td>
<td>Plywood, 3/4-inch</td>
<td>2 sheets</td>
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### Table 2-2 Equipment Required for Rigging the M1025 Armament Carrier on a 20-Foot Platform for Low Velocity Airdrop (continued)

<table>
<thead>
<tr>
<th>National Stock Number</th>
<th>Item</th>
<th>Quantity</th>
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<tbody>
<tr>
<td>1670-01-097-8816</td>
<td>Release, cargo parachute, M-1</td>
<td>1</td>
</tr>
<tr>
<td>1670-01-062-6304</td>
<td>Sling, cargo, airdrop:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>For Deployment</td>
<td></td>
</tr>
<tr>
<td>1670-01-062-6304</td>
<td>9-foot (2-loop), type XXVI nylon webbing</td>
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</tr>
<tr>
<td></td>
<td>For Lifting</td>
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</tr>
<tr>
<td>1670-01-062-6304</td>
<td>9-foot (2-loop), type XXVI nylon webbing</td>
<td>2</td>
</tr>
<tr>
<td>1670-01-062-6303</td>
<td>12-foot (2-loop), type XXVI nylon webbing</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>For Suspension</td>
<td></td>
</tr>
<tr>
<td>1670-01-062-6301</td>
<td>3-foot (2-loop), type XXVI nylon webbing</td>
<td>6</td>
</tr>
<tr>
<td>1670-01-062-6304</td>
<td>9-foot (2-loop), type XXVI nylon webbing</td>
<td>4</td>
</tr>
<tr>
<td>1670-01-062-6303</td>
<td>12-foot (2-loop), type XXVI nylon webbing</td>
<td>4</td>
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<tr>
<td></td>
<td>For Riser Extension</td>
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<tr>
<td>1670-01-062-6302</td>
<td>20-foot (2-loop), type XXVI</td>
<td>1</td>
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<tr>
<td>5340-00-040-8219</td>
<td>Strap, parachute, release, multi-cut, comes with 3 knives</td>
<td>1</td>
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<tr>
<td>7501-00-266-5016</td>
<td>Tape, adhesive, 2-inch</td>
<td>As required</td>
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<tr>
<td>1670-00-937-0271</td>
<td>Tiedown assembly, 15-foot</td>
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<td>D-rings, heavy duty, 10,000-pound</td>
<td>33</td>
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<td>Binder, load, 10,000-pound</td>
<td>26</td>
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<td>1670-01-483-8259</td>
<td>Towplate release mechanism (H-block) (for C-17)</td>
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<tr>
<td></td>
<td>Towplate release mechanism (H-block) (for C-130J)</td>
<td>1</td>
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<td></td>
<td>Webbing:</td>
<td></td>
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<tr>
<td>8305-00-268-2411</td>
<td>Cotton, 1/4-inch, type I</td>
<td>As required</td>
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<tr>
<td>8305-00-082-5752</td>
<td>Nylon, tubular, 1/2-inch</td>
<td>As required</td>
</tr>
<tr>
<td>8305-00-559-6871</td>
<td>Nylon, type VIII</td>
<td>As required</td>
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</tbody>
</table>
SECTION III - RIGGING STRIKER IN ARMAMENT CARRIER-CONFIGURED M1025 HMMWV-SERIES TRUCK ON A 16-FOOT PLATFORM

DESCRIPTION OF LOAD

2-32. The unrigged M1025A2 armament carrier is described in Chapter 1. The Striker vehicle is configured as a field artillery observer carrier. The Striker serves fire direction control, self-location, target designation and night observation functions. The Striker components are contained within the truck. This load requires three G-11 cargo parachutes. Striker-equipped trucks using the M1025 and M1025A1 models are rigged using these procedures.

PREPARING PLATFORM

2-33. Prepare a 16-foot, type V airdrop platform according to TM 10-1670-268-20&P/TO 13C7-52-22. Install four tandem links, and 32 load tie-down clevises according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5 as shown in Figure 2-20.

1. Install tandem (front and rear) on the platform side rail using holes 1, 2, and 3, 30, 31, and 32.
2. Install a clevis on bushing 2 of each front tandem link, and bushings 4 of each rear tandem link.
3. Starting at the front of the platform, install clevises on each platform side rail using the bushings bolted on holes 5, 15, 17(double) 17A(triple), 20, 21, 23, and 27.
4. Starting at the front of the platform, number the clevises bolted to the right side of the platform from 1 through 10, and those bolted to the left side from 1A through 10A.
5. Label the tiedown rings according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5.

Figure 2-20. Platform Prepared
PREPARING AND POSITIONING HONEYCOMB STACKS

2-34. Build honeycomb stacks 1 through 3 as shown in Figures 1-3 and 1-4. Position the stacks on the platform as shown in Figure 1-5 and according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/ NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5.

PREPARING THE TRUCK

2-35. Prepare truck as described in Figures 1-6, 1-7 (do not do steps 1 and 3), Figure 1-8, Figure 1-9 does not apply to closed body vehicles. Continue preparing the vehicle as shown Figure 1-10 through 1-11. Finish preparing the closed-body HMMWV’s as shown in Figures 2-2 and 2-3 (do steps 1, 2, 4, 5, 6).

PREPARING STRIKER EQUIPMENT

2-36. Prepare the components of the Striker system as shown in Figures 2-21 through 2-26.

1. Place the OE 254 antenna, wire and accessories in its bag and and roll it into a bundle.

2. Tie the roll to the third and fourth deck rings with ½-inch tubular nylon webbing in a figure 8 pattern.

Figure 2-21. Antenna Secured on Platform
① Fold the tripod and place it in its carrying case.
② Pad all antenna mounts with cellulose wadding taped in place.
③ Pad the external fuel can mounts with cellulose wadding taped in place.

Figure 2-22. Antenna Mounts Padded and Tripod Prepared.
① Tie the computer cage in place with type III nylon cord.
② Pad the battlefield screen with cellulose wadding. Place a layer of honeycomb cut to fit over the cellulose wadding. Tape the honeycomb b to the screen.
③ Tie the driver’s headset to the steering wheel with type I, ¼-inch cotton webbing.
④ Tie the passenger headset to the right side of the computer cage with type I, ¼-inch cotton webbing.
⑤ Cover the range finder with cellulosed wadding taped in place.

Figure 2-23. Cab Section of Truck Prepared
6. Tie the machine gun (optional) to a convenient points in the truck.
7. Build and place the turret support as shown in Figure 2-2.
8. Tie the cargo area gate to the cargo bed rings with ½-inch tubular nylon webbing.
9. Route three lengths of ½-inch tubular nylon webbing through the rear cargo bed rings, under all straps and fixtures, under the front gate, and through the strap rings. (not shown)
10. Center a 12- by 12-inch cutout in four 18- by 18-inch pieces of honeycomb. Glue one 18- by 18-inch piece to the stack as the box bottom. Pad the traversing unit with cellulose wadding, place it in the box, and tie an 18-by 18-inch piece of honeycomb on top with type III nylon cord.
11. Girth-hitch two lengths of ½-inch tubular nylon webbing through the strap brackets on the adjustable base. Wrap the machine gun mount with felt and tie it to the edge of the adjustable base with the ½ inch tubular nylon webbing.
12. Secure the traversing unit box made in step 10 to the adjustable base with straps provided.
13. Tie the fire extinguisher and decontamination bottles to the seat braces with type III nylon cord.

Figure 2-23. Cab Section of Truck Prepared (continued)
① Place the disc drive case against the cargo area gate and secure it with the straps provided.

② Secure the rangefinder to the rear seat with ½-inch tubular nylon webbing. Tie the rear headset to the rangefinder bag straps with type I, ¼-inch cotton webbing.

③ Pack the vehicle antenna sections between two 12- by 71-inch pieces of honeycomb, making indentations for the antenna sections. Tie the box together with type III nylon cord. (Not Shown)

④ Place an 18- by 18-inch piece of honeycomb over the traversing unit box.

⑤ Place the antenna box made in step 3 above between the turret and the piece of honeycomb placed in step 4 above. Secure the antenna box to the turret with type III nylon cord.

Figure 2-24. Equipment Cases Stowed in Seat Area of Truck
⑥ Secure the night vision infrared sight box to the front seat frame with ½-inch tubular nylon webbing.

⑦ Glue a 15-inch piece of 2-by 6-inch lumber to an eight-layer stack of 6-by 15-inch honeycomb. Place this stack with the lumber side down under the battlefield screen. Use the serene positioning controls to make a snug fit between the screen and the honeycomb.

⑧ Secure the computer case to the passenger seat back and frame with ½-inch tubular nylon webbing.

Figure 2-24. Equipment Cases Stowed in Seat Area of Truck (continued)
1. Secure the lithium batteries case in the right rear corner of the cargo area with the strap provided.
2. Secure the battery power conditioner in its case with the strap provided.
3. Pack the laser infrared observation sight in an appropriate box. Secure the sight box in front of the battery power conditioner with the strap provided.
4. Secure a padded fuel can in the mount with the strap provided.
5. Secure the wire spool in the left rear corner of the cargo bed with ½-inch tubular nylon webbing.
6. Secure a box of M8 chemical detector paper in the front of the wire spool with the strap provided.
7. Secure the ammunition cans on front of the M8 paper with the straps provided.

Figure 2-25. Equipment Stowed in Cargo Area
Secure three water cans in the mounts on the left with the straps provided.

Be sure the lengths of ½-inch tubular nylon webbing placed in Figure 2-23 step 9 are free of twist and lying flat. Cover the truck bed and the nylon webbing with a 44- by 36-inch piece of honeycomb.

Pad the M-240 tripod with felt taped in place. Position the tripod to the right of the honeycomb.

Place the collimator bore-sight case on the left front corner of the honeycomb.

Place a box of Meal, Ready-To-Eat (MRE)'s to the right of the collimator bore-sight case.

Place the ancillary equipment transit case to the rear of the collimator bore-sight case.

Place the night vision infrared sight in an appropriate box, pad it, and place the box to the rear of the MRE box.

Group the vehicle chock blocks, the bag of Mission Oriented Protective Posture gear, and the cargo net between the wheel well and the ancillary equipment case.

Figure 2-25. Equipment Stowed in Cargo Area (continued)
16. Place the antenna group across the width of the cargo bed at the rear.

17. Place the tripod in its case on top of the antenna case.

18. Tape the upper edges of a 36- by 40-inch piece of honeycomb. Secure the ends of the pre-positioned ½-inch tubular nylon, front to rear, left front to right rear, and right front to left rear.

19. Close and secure the hatch as shown in Figure 2-4 step 11. (not shown)

Figure 2-25. Equipment Stowed in Cargo Area (continued)
① Tape the windows in an X pattern, and lower them, (not shown)

② Center a 2-by 2-inch cutout in a long edge of a 21½- by 14½-inch piece of honeycomb. Place the honeycomb in the right rear window with the cutout on top. Tape the honeycomb in the place between the equipment mount and the door.

③ Cut a notch in a 21- by 83-inch piece of honeycomb for the global positioning system (GPS) antenna and the windshield wipers and place it against the windshield. Round the upper edges of the windshield cover. Tie a length of type III nylon cord around the honeycomb and inside of the windshield frame.

④ Pad the GPS antenna with cellulose wadding and tape.

Figure 2-26. Outside and Top of Striker Truck Prepared
⑤ Make cutouts in the two-layer honeycomb roof cover as shown in Figure 2-3, step 8 to allow for turret fixtures. Tape the upper edges of the honeycomb and tie it to the gutter boards and through the window openings with type III nylon cord after step 6.

⑥ Install the rain gutter protective boards and lashings, and pad the mirrors as shown in Figure 2-3, steps 9-12.

⑦ Face two pieces of 36- by 48-inch honeycomb lengthwise to the truck. Make cutouts to allow for the turret fixtures.

Figure 2-26. Outside and Top of Striker Truck Prepared (continued)
Notes. 1. All measurements are given in inches.
2. This drawing is not drawn to scale.

⑧ Construct the turret cover as shown above. Nail the lumber to the edges of the plywood with 8d nails. Tape the upper edges of the plywood.

⑨ Place the cover flush over the 36- by 48-inch honeycomb placed in step 8 above. Tie the plywood cover from ½-inch holes to convenient points inside the truck with ½-inch tubular nylon webbing.

Figure 2-26. Outside and Top of Striker Truck Prepared (continued)
INSTALLING OPTIONAL DRIVE-OFF AIDS ON PLATFORM

2-37. Install the optional drive-off aids on the platform as shown in Figure 1-14.

LIFTING AND POSITIONING TRUCK AND INSTALLING OPTIONAL DRIVE-OFF AIDS

2-38. Install the lifting slings as shown in Figure 1-15. Position the truck on the honeycomb stacks as shown in Figure 1-16. Attach the drive-off aids to the wheels of the truck as shown in Figure 1-17, Figure 2-12, and according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/ NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5.

LASHING THE TRUCK

2-39. Lash the truck to the platform according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/ NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5 and as shown in Figures 2-27 and 2-28.

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<tr>
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<td>1</td>
<td>Pass lashing: Through tie-down bracket behind the left rear coil spring.</td>
</tr>
<tr>
<td>2</td>
<td>1A</td>
<td>Through tie-down bracket behind the right rear coil spring</td>
</tr>
<tr>
<td>3</td>
<td>2</td>
<td>Through left rear lifting shackle.</td>
</tr>
<tr>
<td>4</td>
<td>2A</td>
<td>Through right rear lifting shackle</td>
</tr>
<tr>
<td>5</td>
<td>3</td>
<td>Around left rear lower control arm.</td>
</tr>
<tr>
<td>6</td>
<td>3A</td>
<td>Around right rear lower control arm</td>
</tr>
<tr>
<td>7</td>
<td>4</td>
<td>Through the tie-down bracket in front of the left rear coil spring.</td>
</tr>
<tr>
<td>8</td>
<td>4A</td>
<td>Through the tie-down bracket in front of the right rear coil spring.</td>
</tr>
<tr>
<td>9</td>
<td>5 and 5A</td>
<td>Pass a 15-foot lashing through clevis 5A and through its own D-ring. Pass the lashing through the hole in stack 2. Attach the lashing to clevis 5 with a load binder.</td>
</tr>
</tbody>
</table>

Figure 2-27. Lashings 1 through 9 Installed
<table>
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<th>Tiedown Clevis Number</th>
<th>Instructions</th>
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</thead>
<tbody>
<tr>
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<td>6</td>
<td>Pass lashing: Through the tiedown bracket behind the left front coil spring.</td>
</tr>
<tr>
<td>11</td>
<td>6A</td>
<td>Through the tiedown bracket behind the right front coil spring.</td>
</tr>
<tr>
<td>12</td>
<td>7</td>
<td>Around the left lower control arm.</td>
</tr>
<tr>
<td>13</td>
<td>7A</td>
<td>Around the right lower control arm.</td>
</tr>
<tr>
<td>14</td>
<td>10</td>
<td>Through the tie-down bracket on the end of the left frame rail.</td>
</tr>
<tr>
<td>15</td>
<td>10A</td>
<td>Through the tie-down bracket on the end of the right frame rail.</td>
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</tbody>
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Figure 2-28. Lashings 10 through 15 Installed
INSTALLING AND SAFETY TIEING THE SUSPENSION SLINGS

2-40. Install, safety tie and pad the suspension slings according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5 and as shown in Figures 2-5.

STOWING CARGO PARACHUTES

2-41. Stow the cargo parachutes according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5 and as shown in Figure 2-29.

1 Prepare, position, and stow three G-11B cargo parachutes according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5.

2 Install the cargo parachute restraint straps according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5. Use tiedown clevises 8, 8A and 9 and 9A.

3 Install a multi-cut parachute release strap on the restraint straps on each side according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5.

Figure 2-29. Cargo Parachutes Stowed and Restrained
INSTALLING THE RELEASE SYSTEM

2-42. Install the release assembly according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMDO-010 REV 1/TO 13C7-1-5 and as shown in Figure 2-30.

1. Prepare and install the release assembly according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMDO-010 REV 1/TO 13C7-1-5 in front of the top parachute on the plywood turret cover.

2. Attach the suspension slings and the riser extensions to the release. Tie the riser extensions together with type 1, ¼-inch cotton webbing.

3. S-fold any slack in the suspension slings. Tie the folds in place with type 1, ¼-inch cotton webbing.

Figure 2-30. M-1 Cargo Parachute Release Assembly Installed
INSTALLING THE EXTRACTION SYSTEM

2-43. Install the EFTC extraction system according to TM 4-48.02 MCRP 4-11.3J/ NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5 and as shown in Figure 1.23.

INSTALLING PROVISIONS FOR EMERGENCY RESTRAINTS

2-44. Install the provisions for emergency restraints on the load according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/ NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5.

PLACING EXTRACTION PARACHUTE

2-45. Select the extraction parachute and extraction line and using the requirements in table in TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/ NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5. Rig the extraction line in an extraction line bag according to TM 10-1670-286-20/TO 13C5-2-41. Place the extraction parachute and extraction line on the load for installation in the aircraft. Select a drogue parachute and a drogue line if using C-17/C-130J and place them on the load.

MARKING RIGGED LOAD

2-46. Mark the rigged load according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/ NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5 and as shown in Figure 2-31. Complete Shipper's Declaration for Dangerous Goods. If the load varies from the one shown, the weight, height, CB, and parachute requirements must be recomputed.

EQUIPMENT REQUIRED

2-47. Use the equipment listed in Table 2-3 on page 2-53 and continuing on page 2-54 to rig this load.
CAUTION

Make the final rigger inspection required by AR 59-4 and TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/ NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5 before the load leaves the rigging site.

RIGGED LOAD DATA

Weight: Load Shown ..........................................................11,389 pounds
Maximum load allowed ......................................................11,500 pounds
Height (with two G-11B parachutes) .............................98 inches
Width ..............................................................................108 inches
Length ............................................................................215 inches
Length with extraction parachute jettison system (EPJS) Light 295 inches
Overhang: Front (vehicle) ..............................................0 inches
Rear (extraction force transfer coupling) .................18 inches
Rear (EPJS Light) .............................................................30 inches
Center of Balance (CB) (from front edge of platform) ......97 inches

Figure 2-31. M1025 Armament Carrier Rigged With Striker for Low-Velocity Airdrop on a 16-Foot Platform
### Table 2-3. Equipment Required for Rigging the M1025 Armament Carrier on a 16-Foot Platform for Low Velocity Airdrop

<table>
<thead>
<tr>
<th>National Stock Number</th>
<th>Item</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>8040-00-273-8713</td>
<td>Adhesive paste, 1-gallon</td>
<td>As required</td>
</tr>
<tr>
<td>4030-00-090-5354</td>
<td>Clevis, suspension, 1-inch (large)</td>
<td>5</td>
</tr>
<tr>
<td>4030-00-678-8562</td>
<td>Clevis, suspension, 3/4-inch (medium)</td>
<td>4</td>
</tr>
<tr>
<td>4020-00-240-2146</td>
<td>Cord, nylon, type III,</td>
<td>As required</td>
</tr>
<tr>
<td>1670-00-434-5785</td>
<td>Coupling, Airdrop Extraction Force Transfer, w/16-foot. cable</td>
<td>1</td>
</tr>
<tr>
<td>8135-00-664-6958</td>
<td>Cushioning material (Cellulose wadding)</td>
<td>As required</td>
</tr>
<tr>
<td>1670-01-475-1990</td>
<td>Extraction Parachute Jettison System Light</td>
<td>1</td>
</tr>
<tr>
<td>8305-00-958-3685</td>
<td>Felt</td>
<td>As required</td>
</tr>
<tr>
<td>1670-01-183-2678</td>
<td>Leaf, extraction line (line bag) (for C-130)</td>
<td>2</td>
</tr>
<tr>
<td>1670-01-183-2678</td>
<td>Leaf, extraction/drogue line (line bag) (for C-17/C130J)</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Line extraction:</td>
<td></td>
</tr>
<tr>
<td>1670-01-062-6313</td>
<td>60-foot (3-loop), type XXVI (for C-130/J)</td>
<td>1</td>
</tr>
<tr>
<td>1670-01-107-7651</td>
<td>140-foot (3-loop), type XXVI (for C-17)</td>
<td>1</td>
</tr>
<tr>
<td>1670-01-064-4452</td>
<td>60-foot (1-loop), type XXVI (for C-17/C-130J), (drogue line)</td>
<td>1</td>
</tr>
<tr>
<td>1670-01-493-6418</td>
<td>Link assembly, two-point, 3¾-inch, small:</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>Lumber:</td>
<td></td>
</tr>
<tr>
<td>5510-00-550-6969</td>
<td>1- by 6- by 48-inch</td>
<td>1</td>
</tr>
<tr>
<td>5510-00-220-6146</td>
<td>2- by 4- by 96-inch</td>
<td>3</td>
</tr>
<tr>
<td>5510-00-220-6196</td>
<td>2- by 6- by 72-inch</td>
<td>1</td>
</tr>
<tr>
<td>5510-00-220-6274</td>
<td>4- by 4- by 96-inch</td>
<td>1</td>
</tr>
<tr>
<td>5315-00-010-4659</td>
<td>Nail, steel, common, 8D</td>
<td>As required</td>
</tr>
<tr>
<td>1670-00-753-3928</td>
<td>Pad, energy-dissipating (honeycomb)</td>
<td>15 sheets</td>
</tr>
<tr>
<td>1670-01-016-7841</td>
<td>Parachute, cargo, G-11B</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Parachute, cargo, extraction:</td>
<td></td>
</tr>
<tr>
<td>1670-01-063-3716</td>
<td>22-foot</td>
<td>1</td>
</tr>
<tr>
<td>1670-01-063-3715</td>
<td>15-foot (for C-17/C130J) (DES)</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Platform, airdrop, type V, 16-foot:</td>
<td></td>
</tr>
<tr>
<td>1670-01-353-8424</td>
<td>Bracket, assembly, extraction</td>
<td>1</td>
</tr>
<tr>
<td>1670-01-353-8425</td>
<td>Bracket, assembly, coupling</td>
<td>1</td>
</tr>
<tr>
<td>1670-01-162-2372</td>
<td>Clevis assembly (type V)</td>
<td>21</td>
</tr>
<tr>
<td>1670-01-162-2381</td>
<td>Tandem link assembly (Multipurpose link)</td>
<td>4</td>
</tr>
<tr>
<td>5530-00-128-4981</td>
<td>Plywood, 3/4-inch</td>
<td>2 sheets</td>
</tr>
</tbody>
</table>
Table 2-3 Equipment Required for Rigging the M1025 Armament Carrier on a 16-Foot Platform for Low Velocity Airdrop (continued)

<table>
<thead>
<tr>
<th>National Stock Number</th>
<th>Item</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1670-01-097-8816</td>
<td>Release, cargo parachute, M-1</td>
<td>1</td>
</tr>
<tr>
<td>1670-01-097-8816</td>
<td>Sling, cargo, airdrop: For Deployment</td>
<td></td>
</tr>
<tr>
<td>1670-01-062-6304</td>
<td>9-foot (2-loop), type XXVI nylon webbing</td>
<td>1</td>
</tr>
<tr>
<td>1670-01-062-6304</td>
<td>For Lifting</td>
<td></td>
</tr>
<tr>
<td>1670-01-062-6304</td>
<td>9-foot (2-loop), type XXVI nylon webbing</td>
<td>2</td>
</tr>
<tr>
<td>1670-01-062-6303</td>
<td>12-foot (2-loop), type XXVI nylon webbing</td>
<td>2</td>
</tr>
<tr>
<td>1670-01-063-7761</td>
<td>16-foot (2-loop), type XXVI nylon webbing</td>
<td>4</td>
</tr>
<tr>
<td>1670-01-062-6302</td>
<td>20-foot (2-loop), type XXVI</td>
<td>1</td>
</tr>
<tr>
<td>5340-00-040-8219</td>
<td>Strap, parachute, release, multi-cut, comes with 3 knives</td>
<td>1</td>
</tr>
<tr>
<td>7501-00-266-5016</td>
<td>Tape, adhesive, 2-inch</td>
<td></td>
</tr>
<tr>
<td>1670-00-937-0271</td>
<td>Tiedown assembly, 15-foot</td>
<td>17</td>
</tr>
<tr>
<td>1670-01-483-8259</td>
<td>D-rings, heavy duty, 10,000-pound</td>
<td>17</td>
</tr>
<tr>
<td>1670-01-483-8259</td>
<td>Binder, load, 10,000-pound</td>
<td>17</td>
</tr>
<tr>
<td>8305-00-268-2411</td>
<td>Towplate release mechanism (H-block) (for C-17)</td>
<td>1</td>
</tr>
<tr>
<td>8305-00-082-5752</td>
<td>Towplate release mechanism (H-block) (for C-130J)</td>
<td>1</td>
</tr>
<tr>
<td>8305-00-559-6871</td>
<td>Cotton, 1/4-inch, type I</td>
<td>As required</td>
</tr>
<tr>
<td>8305-00-082-5752</td>
<td>Nylon, tubular, 1/2-inch</td>
<td>As required</td>
</tr>
<tr>
<td>8305-00-559-6871</td>
<td>Nylon, type VIII</td>
<td>As required</td>
</tr>
</tbody>
</table>
Chapter 3
Rigging Expanded Capacity HMMWV-Series Trucks For Low-Velocity Airdrop

SECTION I – RIGGING M1113 TRUCK WITH M56 SMOKE GENERATOR ON A 16-FOOT PLATFORM

DESCRIPTION OF LOAD

3-1. The M1113 HMMWV-series truck has a heavy-duty suspension and is rigged the same as the M998 truck except as noted. The truck is rigged on a 16-foot, type V airdrop platform for low-velocity airdrop. The M56 Smoke Generator is shown as the accompanying load. The procedure for rigging the M56 smoke generator in the truck is given in this chapter. An accompanying load weighing a minimum of 80 pounds and a maximum of 2,500 pounds must be rigged in the truck. The load requires three G-11 cargo parachutes.

PREPARING PLATFORM

3-2. Prepare a 16-foot, type V airdrop platform according to TM 10-1670-268-20&P/TO 13C7-52-22. Install four tandem links and 18 load tiedown clevises according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5, and as show in Figure 3-1.
Steps:
1. Install a tandem link on the front of each platform side rail using holes 1, 2, and 3.
2. Install a tandem link on the rear of each platform side rail using holes 30, 31, and 32.
3. Install a clevis on bushing 1 of each front tandem link.
4. Install a clevis on bushing 4 of each rear tandem link.
5. Starting at the front of the platform, install clevises on each platform side rail using the bushings bolted on holes, 5, 15, 20, 21 and 25.
6. Install a clevis on bushing 17 in an inverted position. Install a bushing on clevis 17A in the normal position. Bolt an additional clevis to each of these clevises.
7. Starting at the front of the platform, number the clevises bolted to the right side of the platform from 1 through 9, and those bolted to the left side from 1A through 9A. Number the clevises on the 17th bushings 5 and 5A. Number the clevises bolted to these clevises 4 and 4A.
8. Label the tiedown rings according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/ NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5.

Figure 3-1. Platform Prepared
PREPARING AND POSITIONING HONEYCOMB STACKS

3-3. Build the honeycomb stacks as shown in Figures 3-2 through 3-4. Position the stacks on the platform as shown in Figure 3-5.

1. Make 12- by 30-inch cutouts in the left and right front corners of two 36- by 90-inch pieces of honeycomb. Glue the two pieces flush together to form the base.

2. Make 12- by 12-inch cutouts in the left and right front corners of four 36- by 54-inch pieces of honeycomb. Glue the four pieces flush together over the base.

3. Center two 30- by 36-inch pieces of honeycomb over the pieces placed in step 2, and glue them in place.

4. Nail two 30- by 24-inch pieces of 3/4-inch plywood together. Glue the plywood flush over the rear edges of the honeycomb placed in step 3 above.

5. Glue three 30- by 12-inch pieces of honeycomb to the front of the stack, aligned with the plywood.

6. Center and glue a 20- by 24-inch piece of honeycomb over the plywood.

7. Nail two 30- by 12-inch pieces of 3/4-inch plywood together, and glue the plywood flush over the honeycomb placed in step 5 above.

Figure 3-2. Stack 1 Constructed
Note: 1. This drawing is not drawn to scale.
2. All dimensions are in inches.

① Glue four 43- by 26-inch pieces of honeycomb together to form a base.
② Center and glue three 43- by 18-inch pieces of honeycomb over the base.
③ Nail a 43-inch piece of 4- by 4-inch lumber parallel to each long side and 1 ½ inches from each long edge of a ¾- by 43- by 18-inch piece of plywood. Nail a second ¾- by 43—by 18-inch piece of plywood to the lumber and flush with the bottom piece of plywood. Glue the wood section of the stack flush on the honeycomb placed in step 2 above.
④ Make the cutout as shown in a 43- by 18-inch piece of honeycomb. Glue the honeycomb flush over the plywood, with the cutout facing the rear of the stack.

Figure 3-3. Stack 2 Constructed
1 Glue two 80- by 24-inch pieces of honeycomb together to form a base.
2 Center and glue three 54- by 24-inch pieces of honeycomb on the base.
3 Glue a ¾- by 54- by 24-inch piece of plywood over the honeycomb placed in step 2 above.
4 Glue a 54- by 24-inch piece of honeycomb over the plywood placed in step 3 above.
5 Center and glue two 20- by 24-inch pieces of honeycomb on top of the honeycomb placed in step 4 above.
6 Glue a ¾- by 20- by 24-inch piece of plywood over the honeycomb placed in step 5 above.
7 Glue a 20- by 24-inch piece of honeycomb on top of the plywood placed in step 6 above.

Figure 3-4. Stack 3 Constructed
Notes. 1. All measurements are given in inches.
   2. This drawing is not drawn to scale.

<table>
<thead>
<tr>
<th>Stack Number</th>
<th>Position on Platform</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Place stack:</td>
</tr>
<tr>
<td></td>
<td>1 Centered 5 inches from the front edge of the platform.</td>
</tr>
<tr>
<td>2</td>
<td>Centered 86 inches from the front edge of the platform.</td>
</tr>
<tr>
<td>3</td>
<td>Centered 147 inches from the front edge of the platform.</td>
</tr>
</tbody>
</table>

Figure 3-5. Honeycomb Stacks Positioned on Platform
PREPARING TRUCK AND SMOKE GENERATOR

3-4. Prepare the truck and the smoke generator as described below.

- Prepare the truck as described in Paragraphs 1-3 as shown in Figures 1-6, 1-7 AND 3-6.
- Remove the pioneer tool kit from the rear underside of the truck and stow it in the cargo bed. (not shown).
- Prepare the cab of the truck as shown in Figure 1-7, and remove the rifle clips as shown in Figure 3-6.
- Secure and pad radio equipment in the cab as shown in Figure 1-8.
- Remove the breather cap and fording stack and stow them in the truck as shown in Figure 3-7.
- Prepare the front of the truck as shown in Figure 1-9. Place a 4- by 78-inch piece of honeycomb along the front edge of the hood. Also, cover the hood with one piece of honeycomb cut as shown in Figure 1-9, step 6, instead of with two pieces.
- Prepare the truck body as shown in Figure 1-12.
- Prepare the smoke generator as shown in figure 3-9.
- Stow and secure the fuel and water cans and the truck doors as shown in Figure 3-10.

1 Remove any weapons clip attached to the windshield frame.

Figure 3-6. Weapons Clip
1 Remove the breather cap and fording stack. Leave the cap attached to the stack.
2 Tie the cap and stack in the passenger foot well with type III nylon cord.

Figure 3-7. Fording Kit Removed and Stowed
Remove the fabric cab cover from its fasteners at the rear of the cab. Remove the roof bows. Do not detach the cab cover from its fasteners on the windshields frame. (not shown)

Before folding the windshield, bring the cab cover over the front of the windshield. Rest the windshield on the folded cab cover. The cover must occupy the space between the honeycomb on which the front of the windshield rests and the windshield hinges.

Fold the windshield down over the cab cover and any padding.

Figure 3-8. Windshield Folded Over the Cab Cover
① Tape the switches on the smoke generator control panel to the OFF position.
② Tape the exhaust port cover in place.
③ Tape the latches on the IR hopper, and any other latches elsewhere on the smoke generator.
④ Secure the IR hatch cover with two lengths of type III nylon cord.

Figure 3-9. Smoke Generator Prepared
1. Tape the external fire extinguisher latch closed.
2. Pad between the water and fuel cans with four pieces of honeycomb.
3. Pass a 15-foot lashing under the platform, and over the cans through their carrying handles. Secure the lashing at the rear.
4. Place a 33- by 44-inch piece of honeycomb over the fog oil tanks. Tie the truck doors over the honeycomb with two lengths of type III nylon cord.
5. When the lashings securing the body side boards are installed, pass the lashing at the rear of the truck over the smoke generator and the truck doors as shown.

Figure 3-10. Fuel Cans, Water Cans, and Truck Doors Secured
LIFTING AND POSITION TRUCK, INSTALLING OPTIONAL DRIVEOFF AIDS, AND STOWING SPREADER BAR

3-5. Install the optional driveoff aids on the platform, lift and position the truck as follows.
- Install the optional drive off aids as shown in Figure 1-14.
- Install lifting slings on the truck and position the truck on the honeycomb stacks as shown in paragraph 2-22 and Figure 2-12.
- Install the spreader bar assembly on the lifting slings to protect the smoke generator from damage. Install the drive-off aids, if used, to the rear wheels of the truck as shown in Figure 1-17.
- Stow the spreader bar, roof bows, and whip antenna as shown in Figure 3-11.

**CAUTION**

Use of the spreader bar is essential. Failure to comply will result in damage to the equipment.

---

1. Tape the cab bows and antenna to the spreader bar. The tip of the antenna and the end of the spreader bar are shown in the first photograph.

2. Secure the end of the spreader bar to the bracket provided on the equipment platform with the bar’s pin.

3. Place the spreader bar in its original location in the truck cargo area, and secure it with the fasteners provided. Tape the fasteners shut.

---

**Figure 3-11. Spreader Bar, Antenna, and Cab Bows Stowed**
LASHING TRUCK

3-6. Lash the truck to the platform with fifteen 15-foot tiedown assemblies as shown in Figures 3-12 and 3-13, and according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5.

<table>
<thead>
<tr>
<th>Lashing</th>
<th>Tiedown Clevis Number</th>
<th>Instructions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>Through tiedown bracket behind left rear coil spring.</td>
</tr>
<tr>
<td>2</td>
<td>1A</td>
<td>Through tiedown bracket behind right rear coil spring.</td>
</tr>
<tr>
<td>3</td>
<td>2</td>
<td>Through left rear lifting shackle.</td>
</tr>
<tr>
<td>4</td>
<td>2A</td>
<td>Through right rear lifting shackle.</td>
</tr>
<tr>
<td>5</td>
<td>3</td>
<td>Around left rear lower control arm.</td>
</tr>
<tr>
<td>6</td>
<td>3A</td>
<td>Around right rear lower control arm.</td>
</tr>
<tr>
<td>7</td>
<td>4</td>
<td>Through tiedown bracket in front of left rear coil spring.</td>
</tr>
<tr>
<td>8</td>
<td>4A</td>
<td>Through tiedown bracket in front of right rear coil spring.</td>
</tr>
<tr>
<td>9</td>
<td>5 and 5A</td>
<td>Pass a 15-foot lashing through clevis 5A and through its own D-ring. Pass the lashing through the hole in stack 2. Attach the lashing to clevis 5 with a load binder.</td>
</tr>
</tbody>
</table>

Figure 3-12. Lashings 1 Through 9 Installed
Lashing | Tiedown Clevis Number | Instructions
--- | --- | ---
10 | 6 | Pass lashing: Through tiedown bracket behind left front coil spring.
11 | 6A | Through tiedown bracket behind right front coil spring.
12 | 7 | Around left lower control arm.
13 | 7A | Around right lower control arm.
14 | 9 | Through tiedown bracket on end of left frame rail.
15 | 9A | Through tiedown bracket on end of right frame rail.

Figure 3-13. Lashings 10 Through 15 Installed
INSTALLING AND SAFETY TIEING SUSPENSION SLINGS

3-7. Install and safety tie four 16-foot (2-loop), type XXVI nylon suspension slings as shown in Figure 1-20.

STOWING CARGO PARACHUTES

3-8. Stow and restrain three G-11 cargo parachutes on the load according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/ NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5. Install two type VIII nylon webbing restraint straps. Tie the front restraint straps to clevises 8 and 8A. Tie the rear restraint straps to the 27th bushings on the platform side rails. Install a multi-cut parachute release strap on the restraint straps on each side according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/ NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5.

INSTALLING PARACHUTE RELEASE

3-9. Prepare and install an M-1 cargo parachute release according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/ NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5 and as shown in Figure 1-22.

INSTALLING EXTRACTION SYSTEM

3-10. Install the extraction force transfer coupling extraction system according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/ NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5 and as shown in Figure 1-23.

INSTALLING PROVISIONS FOR EMERGENCY RESTRAINTS

3-11. Install provisions for emergency restraints according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/ NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5.

PLACING EXTRACTION PARACHUTE

3-12. Select the extraction parachute and extraction line needed, using the extraction line requirements table in TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/ NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5. Rig the extraction line in a line bag according to TM 10-1670-286-20/TO 13C5-2-41. Place the extraction parachute and extraction line on the load for installation in the aircraft.

MARKING RIGGED LOAD

3-13. Mark the rigged load according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/ NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5, and as shown in Figure 3-14. Complete Shipper’s Declaration for Dangerous Goods according to AFMAN 24-204/TM 38-250. If the load varies from the one shown, the weight, height, CB, and parachute requirements must be recomputed.

EQUIPMENT REQUIRED

3-14. Use the equipment listed in Table 3-1 on page 3-17 and continuing on page 3-18 to rig this load.
CAUTION
Make the final rigger inspection required by TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5 before the load leaves the rigging site.

Weight: Load Shown..........................................................11,960 pounds
Maximum load allowed.......................................................12,710 pounds
Height (with two G-11B parachutes).................................97 inches
Width..................................................................................108 inches
Length...............................................................................215 inches
Overhang: Front (vehicle).....................................................8 inches
Rear (extraction force transfer coupling).........................18 inches
Center of Balance (CB) (from front edge of platform)........91 inches

Figure 3-14. M56 Smoke Generator Rigged in M1113 Truck for Low-Velocity Airdrop
Table 3-1. Equipment Required for Rigging the M1113 truck with M56 Smoke Generator for Low-Velocity Airdrop

<table>
<thead>
<tr>
<th>National Stock Number</th>
<th>Item</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>8040-00-273-8713</td>
<td>Adhesive paste, 1-gallon</td>
<td>As required</td>
</tr>
<tr>
<td>4036-00-090-5354</td>
<td>Clevis, suspension, 1-inch (large)</td>
<td>5</td>
</tr>
<tr>
<td>1670-00-360-0328</td>
<td>Cover, clevis, large</td>
<td>1</td>
</tr>
<tr>
<td>4020-00-240-2146</td>
<td>Cord, nylon, type III, 550-pound</td>
<td>As required</td>
</tr>
<tr>
<td>1670-00-434-5785</td>
<td>Coupling, Airdrop Extraction Force Transfer, w/16-foot. cable</td>
<td>1</td>
</tr>
<tr>
<td>8135-00-664-6958</td>
<td>Cushioning material (Cellulose wadding)</td>
<td>As required</td>
</tr>
<tr>
<td>1670-01-475-1990</td>
<td>Extraction Parachute Jettison System Light</td>
<td>1</td>
</tr>
<tr>
<td>8305-00-958-3685</td>
<td>Felt, ½-inch thick</td>
<td>As required</td>
</tr>
<tr>
<td>1670-01-183-2678</td>
<td>Leaf, extraction line (line bag) (for C-130)</td>
<td>2</td>
</tr>
<tr>
<td>1670-01-183-2678</td>
<td>Leaf, extraction/drogue line (line bag) (for C-17/C130J)</td>
<td>4</td>
</tr>
<tr>
<td>Line extraction:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1670-01-062-6313</td>
<td>60-foot (3-loop), type XXVI (for C-130/J)</td>
<td>1</td>
</tr>
<tr>
<td>1670-01-107-7651</td>
<td>140-foot (3-loop), type XXVI (for C-17)</td>
<td>1</td>
</tr>
<tr>
<td>1670-01-064-4452</td>
<td>60-foot (1-loop), type XXVI (for C-17/C-130J), (drogue line)</td>
<td>1</td>
</tr>
<tr>
<td>1670-01-493-6418</td>
<td>Link assembly, two-point, 3¾-inch, small:</td>
<td>1</td>
</tr>
<tr>
<td>5306-00-435-8994</td>
<td>Bolt, 1-inch diameter, 4-inches long</td>
<td>2</td>
</tr>
<tr>
<td>5310-00-232-5165</td>
<td>Nut, 1-inch diameter, 4-inches long</td>
<td>2</td>
</tr>
<tr>
<td>1670-00-003-1953</td>
<td>Plate, side 3 ¾-inches</td>
<td>2</td>
</tr>
<tr>
<td>5365-00-007-3414</td>
<td>Spacer, large</td>
<td>2</td>
</tr>
<tr>
<td>Lumber:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5510-00-220-6196</td>
<td>2- by 6- by 72-inch</td>
<td>As required</td>
</tr>
<tr>
<td>5510-00-220-6274</td>
<td>4- by 4- by 96-inch</td>
<td>As required</td>
</tr>
<tr>
<td>5315-00-010-4659</td>
<td>Nail, steel, wire, 8D</td>
<td>As required</td>
</tr>
<tr>
<td>1670-00-753-3928</td>
<td>Pad, energy-dissipating (honeycomb) 3- by 35- by 96-inches</td>
<td>13 sheets</td>
</tr>
<tr>
<td>1670-01-016-7841</td>
<td>Parachute, cargo, G-11B</td>
<td>3</td>
</tr>
<tr>
<td>Parachute, cargo, extraction:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1670-01-063-3716</td>
<td>22-foot (for C-17, use H-block with this parachute) Drogue (for C-17)</td>
<td>1</td>
</tr>
<tr>
<td>1670-01-063-3715</td>
<td>15-foot (for C-17/C130J) (DES) Platform, airdrop, type V, 16-foot:</td>
<td>1</td>
</tr>
<tr>
<td>1670-01-353-8424</td>
<td>Bracket, assembly, extraction</td>
<td>1</td>
</tr>
<tr>
<td>1670-01-353-8425</td>
<td>Bracket, assembly, coupling</td>
<td>1</td>
</tr>
<tr>
<td>1670-01-162-2372</td>
<td>Clevis assembly (type V)</td>
<td>21</td>
</tr>
<tr>
<td>1670-01-162-2381</td>
<td>Tandem link assembly (Multipurpose link)</td>
<td>4</td>
</tr>
<tr>
<td>5530-00-128-4981</td>
<td>Plywood, 3/4-inch</td>
<td>4 sheets</td>
</tr>
</tbody>
</table>
Table 3-1. Equipment Required for Rigging the M1113 Truck with M56 Generator for Low-Velocity Airdrop (continued)

<table>
<thead>
<tr>
<th>National Stock Number</th>
<th>Item</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1670-01-097-8816</td>
<td>Release, cargo parachute, M-1</td>
<td>1</td>
</tr>
<tr>
<td>1670-01-062-6304</td>
<td>Sling, cargo, airdrop:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>For Deployment</td>
<td></td>
</tr>
<tr>
<td>1670-01-062-6304</td>
<td>9-foot (2-loop), type XXVI nylon webbing</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>For Lifting</td>
<td></td>
</tr>
<tr>
<td>1670-01-062-6304</td>
<td>9-foot (2-loop), type XXVI nylon webbing</td>
<td>2</td>
</tr>
<tr>
<td>1670-01-062-6303</td>
<td>12-foot (2-loop), type XXVI nylon webbing</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>For Suspension</td>
<td></td>
</tr>
<tr>
<td>1670-01-063-7761</td>
<td>16-foot (2-loop), type XXVI nylon webbing</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>For Riser Extension</td>
<td></td>
</tr>
<tr>
<td>1670-01-062-6302</td>
<td>60-foot (3-loop), type XXVI nylon webbing</td>
<td>3</td>
</tr>
<tr>
<td>4910-01-313-8839</td>
<td>Spreader bar assembly</td>
<td>1</td>
</tr>
<tr>
<td>5340-00-040-8219</td>
<td>Strap, parachute, release, multi-cut, comes with 3 knives</td>
<td>2</td>
</tr>
<tr>
<td>7501-00-266-5016</td>
<td>Tape, adhesive, 2-inch</td>
<td>As required</td>
</tr>
<tr>
<td>1670-00-937-0271</td>
<td>Tiedown assembly, 15-foot</td>
<td>20</td>
</tr>
<tr>
<td>1670-01-344-0825</td>
<td>Vehicle drive-off aid</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Webbing:</td>
<td></td>
</tr>
<tr>
<td>8305-00-268-2411</td>
<td>Cotton, 1/4-inch, type I</td>
<td>As required</td>
</tr>
<tr>
<td>8305-00-082-5752</td>
<td>Nylon, tubular, 1/2-inch</td>
<td>As required</td>
</tr>
<tr>
<td>8305-00-559-6871</td>
<td>Nylon, type VIII</td>
<td>As required</td>
</tr>
</tbody>
</table>
SECTION II – RIGGING M1114 UP-ARMOURED ARMAMENT CARRIER

DESCRIPTION OF LOAD

3-15. The M1114 HMMWV-series truck has a heavy-duty suspension and additional armor in the sides, door, and floor. The truck is shown in Figure 3-15. The truck is rigged on a 16-foot, type V airdrop platform for low-velocity airdrop. The load required three G-11 cargo parachutes.

PREPARING PLATFORM

3-16. Prepare a 16-foot, type V airdrop platform according to TM 10-1670-268-20&P/TO 13C7-52-22. Install four tandem links and 18 load tiedown clevises according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/ NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5, and as shown in Figure 3-16.

Figure 3-15. M1114 Up-Armored Armament Carrier
Steps:
1. Install a tandem link on the front of each platform side rail using holes 1, 2, and 3.
2. Install a tandem link on the rear of each platform side rail using holes 30, 31, and 32.
3. Install a clevis on bushing 1 of each front tandem link.
4. Install a clevis on bushing 4 of each rear tandem link.
5. Starting, 21, and 25. at the front of the platform, install clevises on each platform side rail using the bushings bolted on holes, 5, 15, 20
6. Install a clevis on bushing 17 in an inverted position. Install a bushing on clevis 17A in the normal position. Bolt an additional clevis to each of these clevises.
7. Starting at the front of the platform, number the clevises bolted to the right side of the platform from 1 through 9, and those bolted to the left side from 1A through 9A. Number the clevises on the 17th bushings 5 and 5A. Number the clevises bolted to these clevises 4 and 4A.
8. Label the tiedown rings according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5.

Figure 3-16. Platform Prepared
PREPARING AND POSITIONING HONEYCOMB STACKS

3-17. Build the honeycomb stacks as shown in Figures 3-17 through 3-19. Position the stacks on the platform as shown in Figure 3-20.

Notes. 1. All measurements are given in inches.
2. This drawing is not drawn to scale.

1. Center the edge of a 30- by 14-inch piece of honeycomb along the front edge of a 80- by 4-inch piece of honeycomb.
2. Place a 25- by 24-inch piece of honeycomb along each long side of a 30- by 38-inch piece of honeycomb. Align the rear edges of this layer.
3. Center a 30- by 14-inch piece of honeycomb along the front edge of a 54- by 24-inch piece of honeycomb.
4. Place a 12- by 24-inch piece of honeycomb along each long side of a 30- by 38-inch piece of honeycomb. Align the rear edges of this layer.
5. Make this layer as shown in step 3 above and enter it over the fourth layer.
6. Make this layer as shown in step 4 above and center it over the fifth layer.
7. Center a 30- by 38-inch piece by honeycomb over the sixth layer.

Figure 3-17. Stack 1 Prepared
Notes. 1. All measurements are given in inches.
   2. This drawing is not drawn to scale.

1. Nail two 30-by-38-inch pieces of \( \frac{3}{4} \)-inch plywood flush together.
2. Space and nail eight pieces of 2-by-4-inch lumber in pairs and to the plywood as shown.
3. Nail one 30-by-38-inch piece of \( \frac{3}{4} \)-inch plywood flush over the lumber as shown.
4. Glue a 30-by-14-inch piece of honeycomb flush along the front edge as shown.
5. Center a 20-inch side of a 20-by-24-inch piece of honeycomb along the rear edge of the piece placed in step 11.
6. Glue a 30-by-6-inch piece of \( \frac{3}{4} \)-inch plywood 1 inch from the front edge of the stack.

Figure 3-17. Stack 1 Prepared (continued)
Notes. 1. All measurements are given in inches.
2. This drawing is not drawn to scale.

① Glue three 43- by 26-inch pieces of honeycomb together to form a base.
② Center and glue three 43- by 18-inch pieces of honeycomb over the base.
③ Nail two 43- by 18-inch pieces of ¾-inch plywood flush together.
④ Nail a 43-inch piece of 2-4-inch lumber flat side down, parallel to each long side, and 3 inches from each long edge of the plywood.
⑤ Make a 3 ½- by 5-inch cutout as shown in a third ¾- by 43- by 18-inch piece of plywood. Nail the plywood to the lumber and flush with the bottom pieces of plywood. Glue the wood section of the stack flush on the honeycomb placed in step 2 above.
⑥ Make the cutout as shown in two 39- by 18-inch pieces of honeycomb. Glue the honeycomb flush with the right edge of the plywood, with the cutout facing the rear of the stack.

Figure 3-18. Stack 2 Prepared
Note. This drawing is not drawn to scale.

1. Glue two 80- by 24-inch pieces of honeycomb together to form a base.
2. Center and glue five 35- by 24-inch pieces of honeycomb on the base.
3. Nail two 21- by 24-inch pieces of ¾-inch plywood to each other and to six 21-inch pieces of 2- by 2- by 4-inch lumber. Nail the number flush along the sides and in the center of the plywood.
4. Nail a 27-inch pieces of 2- by 4-inch lumber flush along the right side.
5. Nail a 17- by 24-inch piece of ¾-inch plywood flush with the left side.
6. Nail a 24-inch piece of 2- by 4-inch lumber flush with the left edge of the plywood placed in step 5 above.
7. Nail a 3 ½- by 24-inch piece of ¾-inch plywood flush over the lumber placed in step 6 above.
8. Glue a 13- by 5-inch piece of honeycomb along the rear edge of the plywood flush against the plywood and lumber placed in steps 6 and 7 above.

Figure 3-19. Stack 3 Prepared
**Notes.** 1. All measurements are given in inches.
2. This drawing is not drawn to scale.

<table>
<thead>
<tr>
<th>Stack Number</th>
<th>Position on Platform</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Centered 5 inches from the front edge of the platform.</td>
</tr>
<tr>
<td>2</td>
<td>Centered 88 inches from the front edge of the platform and face the cutout to the rear.</td>
</tr>
<tr>
<td>3</td>
<td>Centered 149 inches from the front edge of the platform.</td>
</tr>
</tbody>
</table>

*Figure 3-20. Honeycomb Stacks Positioned on Platform*
PREPARING TRUCK

3-18. Prepare the truck as described below.
- Prepare the cab of the truck as shown in Figures 1-7, steps 3 through 10
- Prepare the body of the truck as shown in Figure 3-21.
- Prepare the underside of the truck as shown in Figure 3-22.
- Prepare the hood and roof of the truck as shown in figure 3-23.

Figure 3-21. Truck Body Prepared

1. Remove the four Light Vehicle Obscuration Smoke System (LVOSS) units from the roof corners. Pad the brackets with felt and cellulose wadding.
2. Tape all lights and reflectors.
3. Pad the air vents and roof corners with felt taped in place.
4. Pad the antenna mounts with cellulose wadding taped in place.
5. Remove the mirrors, pad and tape them, and tie them under the driver’s seat. Pad the mirror brackets with felt taped in place.
(6) Lower all windows. Tie them in the lowered position with ½-inch tubular nylon webbing.

(7) Remove the breather cap and fording stack. Place a layer of felt over the air intake hole and tape the felt in place and secure in the truck.

Figure 3-21. Truck Body Prepared (continued)
① Tape the fuel tank drain plug.
② Pad the lower control arms at the front and rear of the truck with cellulose wadding taped in place.
③ Have a 12- by 12-inch piece of honeycomb and 16-inch length of 2- by 6-inch lumber ready to place under the oil pan as shown.

Figure 3-22. Underside of Truck Prepared
6. Route a 15-foot lashing around the right frame member and to the front side of the stabilizer bar.
7. Route a second 15-foot lashing around the left frame member and around the stabilizer bar.
8. Route the free end of the lashing placed in step 4 around the radius rod on the left side of the cross member in front of the fuel tank.
9. Route the free end of the lashing placed in step 5 around the radius rod on the right side of the cross member in front of the fuel tank.
10. Tighten and secure both lashings over the honeycomb and lumber placed under the oil pan. Separate the load binders so that they do not interfere with each other.

Figure 3-22. Underside of Truck Prepared (continued)
Notes. 1. All measurements are given in inches.
   2. This drawing is not drawn to scale.

1. Place a 4- by 78-inch piece of honeycomb with cutouts as shown to the hood.

2. Tie two 83- by 36-inch pieces of honeycomb with cutouts as shown to the hood with type III nylon cord. Tape the upper edges of the honeycomb. Route the cord through the grille and tie it on each side to the hood latches.

3. Place two 83- by 12-inch pieces of honeycomb behind the honeycomb placed in step 1. Tape the upper outside edges, and tie the honeycomb to the hood latches with type III nylon cord.

4. Tape the hood latches.

5. Tie an 83- by 21-inch piece of honeycomb to the windshield. Tape the outside edges and tie the type III nylon cord through the door openings and around the honeycomb.

6. Center two 30-foot lashings across the wide of the roof. Center one lashing over the front window openings, and once lashing over the rear window openings.

7. Place four full sheets of honeycomb on the roof. Crush or cut out to allow for the turret fixtures. Tape the upper edges of the honeycomb. Tie the honeycomb to the roof through the door.

Figure 3-23. Hood and Roof Covered
STOWING LOAD IN M1114 TRUCK

3-19. Stow mission equipment in the truck cargo compartment as shown in Figure 3-24. Stow items in the cab area as show in Figure 3-25. Install the wood side protection boards as shown in Figure 3-26.

**CAUTION**

Only ammunition listed in TM 4-48.16 (FM 4-20.153)/MCRP 4-11.3B/TO 13C7-18-41 may be airdropped.

1. Route a lashing through the left rear and right front cargo bed rings.
2. Route a lashing through the right rear and left front cargo bed rings.
3. Route a lashing through the front center and rear center cargo bed rings.
4. Secure the axe in its mount on the tailgate with the straps provided.
5. Secure the jack and MAX tool kit in the right storage area over the wheel well with the straps provided.
6. Place one box of 9-mm ammunition in the right wheel well cargo area and secure it with the straps provided.

*Figure 3-24. Accompanying Load Stowed in Cargo Bed*
⑦ Cover the hatch bed with a 36- by 47-inch and a 15- by 20-inch piece of honeycomb.
⑧ Secure two fuel cans in the stowage brackets with the straps provided.
⑨ Secure one water can behind the fuel cans in the stowage bracket with the straps provided.
⑩ Place the route signing kit in the right front.
⑪ Place the Light Scattering-Screen (LSS) nets in the center.
⑫ Place the Enemy Prisoner of War (EPW) kit to the right of the LSS nets.
⑬ Place the team bag over the EPW kit box.

Figure 3-24. Accompanying Load Stowed in Cargo Bed (continued)
Wrap all three AT4 rocket launchers with cellulose wadding and tape. Place the first AT4 over the route signing kit. (not shown)

Place a box of 9-millimeter (mm) ammunition over the team bag.

Place a box of 5.56 ammunition over the light-scattering screen (LSS) net bag.

Place a can of 40-mm linked ammunition in the left rear.

Place a can of 40-mm linked ammunition in the right rear.

Place the two remaining AT4’s over the 40-mm ammunition, team bag, and LSS bag.

Figure 3-24. Accompanying Load Stowed in Cargo Bed (continued)
① Secure the three lashings placed in steps 1 through 3 over the load with D-rings and load binders. Pass the lashing through box handles where possible.

② Secure the tailgate shut with ½-inch tubular nylon webbing.

③ Secure the light-scattering screen (LSS) pole bag to the tailgate with the straps provided. Tape the loose strap ends.

Figure 3-24. Accompanying Load, Tailgate and Poles Secured
① Place the warning triangle and the first aid kit behind the driver’s seat and secure them with the strap provided.

② Build the turret support according to Figure 3-2. Place the turret support under the turret across its diameter in a left rear to right front direction. Tie the support to convenient points on the turret with ½-inch tubular nylon webbing. Tie the turret brake in the DOWN position with type III nylon cord. Secure the three turret latches to holes in the turret ring with type III nylon cord.

Figure 3-25. Accompanying Load Stowed in Cab
3 Place three boxes of 40-millimeter (mm) linked ammunition in the space provided between the seats. Place two boxes of 5.56-mm ammunition on the 40-mm boxes. Secure the ammunition with the straps provided. Safety the strap fasteners with type III nylon cord.

4 Place two 5.56-mm ammunition boxes in front of the ammunition placed in step 3.

5 Place a box of 40-mm linked ammunition on the right rear passenger seat.

6 Place the MOD60 kit to the left of the 5.56-mm ammunition boxes placed in step 4.

Figure 3-25. Accompanying Load Stowed in Cab (continued)
7. Place a box of 40-millimeter (mm) linked ammunition upright on the floor behind the driver’s seat.

8. Set two boxes of Meal, Ready-To-Eat (MRE) on their sides over the 40-mm ammunition box.

9. Place a box of claymore mines and a box of M203 grenade rounds between the left rear seat back and the boxes placed in steps 7 and 8.

10. Tie the items placed in steps 7 through 9 to the seat back and to stationary points in the truck with ½-inch tubular nylon webbing. Place a piece of honeycomb between the driver’s seat back and the tied items.

11. Wrap the Mark 19 grenade launcher, tripod, and fording stack with cellulose wadding and tape. Place them in the cab center between the passenger seats. Secure them to points near the floor with type III nylon cord.

12. Place two 5.56-mm ammunition boxes over the 40-mm ammunition box placed in step 5.

Figure 3-25. Accompanying Load Stowed in Cab (continued)
⑬ Place a light vehicle obscuration smoke system (LVOSS) unit and a chock block behind each rear seat. Wrap the LVOSS unit with cellulose wadding and tape. Secure them to the seat back with type III nylon webbing.

⑭ Place and secure a water can on the floor behind the front passenger seat.

⑮ Tie the ammunition boxes to the seat back and to stationary points with ½-inch tubular nylon webbing.

Figure 3-25. Accompanying Load Stowed in Cab (continued)
16 Tie a box of 40-millimeter (mm) linked ammunition to the front passenger seat with ½-inch tubular nylon webbing.

17 Wrap the antenna sections with cellulose wadding and tape. Tie the antenna sections to convenient points with ½-inch tubular nylon webbing.

18 Pad the remaining light vehicle obscuration smoke system (LVOSS) units with cellulose wadding and tape. Tie them in the front passenger foot well with ½-inch tubular nylon webbing.

Figure 3-25. Accompanying Load Stowed in Cab (continued)
① Cut a 45-degree bevel in each end of two 69 ½- by 2- by 6-inch pieces of lumber. Hold the lumber even with the top of the window openings, with the beveled cuts facing outward. Extend the free ends of the lashings placed in Figure 3-24, step 12 down around the lumber, and around the board once, and through the door openings. Secure the ends of the lashings to each other inside the truck.

② Pad the ends of the gutter boards placed in step 1 above with felt and tape.

③ Make and install two body side protection boards according to Figure 2-13, steps 3 through 6.

④ Pad the load binder for the lashing over the rear of the truck with felt and tape.

Figure 3-26. Body Side Protection Boards Installed
LIFTING AND POSITION TRUCK, AND INSTALLING OPTIONAL DRIVEOFF AIDS

3-20. Install the optional drive-off aids on the platform as shown in Figure 3-27. Install lifting slings on the truck as shown in Figure 2-16. Position the truck on the honeycomb stacks as shown in Figure 3-28. Install the drive-off aids, if used, to the rear wheels of the truck as shown in Figure 1-17.

① Attach the looped end of each drive-off aid to the outside rear tiedown ring on the last platform panel with a type V clevis assembly.

② Extend the drive-off aids to the front of the platform, passing them over the base layers of stacks 1 and 3. Secure the drive-off aids to adjacent platform bushings and tiedown rings with type I, ¼-inch cotton webbing.
① Be sure that the suspension cross members of the truck rest securely on stacks 1 and 3.

② Be sure that frame cross member rests securely on the 6-inch part of the honeycomb at the front of stack 2.

Figure 3-28. Truck Positioned on Platform and Drive-Off Aids Installed
LASHING TRUCK

3-21. Lash the truck to the platform with fifteen 15-foot tiedown assemblies as shown in Figures 3-29 and 3-30, and according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/ NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5.

<table>
<thead>
<tr>
<th>Lashing</th>
<th>Tiedown Clevis Number</th>
<th>Instructions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>Pass lashing:</td>
</tr>
<tr>
<td>2</td>
<td>1A</td>
<td>Through tiedown bracket behind left rear coil spring.</td>
</tr>
<tr>
<td>3</td>
<td>2</td>
<td>Through left rear lifting shackle.</td>
</tr>
<tr>
<td>4</td>
<td>2A</td>
<td>Through right rear lifting shackle.</td>
</tr>
<tr>
<td>5</td>
<td>3</td>
<td>Around left rear lower control arm.</td>
</tr>
<tr>
<td>6</td>
<td>3A</td>
<td>Around right rear lower control arm.</td>
</tr>
<tr>
<td>7</td>
<td>4</td>
<td>Through tiedown bracket in front of left rear coil spring.</td>
</tr>
<tr>
<td>8</td>
<td>4A</td>
<td>Through tiedown bracket in front of right rear coil spring.</td>
</tr>
<tr>
<td>9</td>
<td>5 and 5A</td>
<td>Pass a 15-foot lashing through clevis 5A and through its own D-ring. Pass the lashing through the hole in stack 2. Attach the lashing to clevis 5 with a load binder.</td>
</tr>
</tbody>
</table>

Figure 3-29. Lashings 1 Through 9 Installed
### Lashing Instructions

<table>
<thead>
<tr>
<th>Lashing</th>
<th>Tiedown Clevis Number</th>
<th>Instructions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pass lashing:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>6</td>
<td>Through tiedown bracket behind left front coil spring.</td>
</tr>
<tr>
<td>11</td>
<td>6A</td>
<td>Through tiedown bracket behind right front coil spring.</td>
</tr>
<tr>
<td>12</td>
<td>7</td>
<td>Around left lower control arm.</td>
</tr>
<tr>
<td>13</td>
<td>7A</td>
<td>Around right lower control arm.</td>
</tr>
<tr>
<td>14</td>
<td>9</td>
<td>Through tiedown bracket on end of left frame rail.</td>
</tr>
<tr>
<td>15</td>
<td>9A</td>
<td>Through tiedown bracket on end of right frame rail.</td>
</tr>
</tbody>
</table>

**Figure 3-30. Lashings 10 Through 15 Installed**
INSTALLING AND SAFETY TIEING SUSPENSION SLINGS

3-22. Install, pad and safety tie four 16-foot (4-loop), type XXVI nylon suspension slings as shown in Figure 3-31.

① Attach a 16-foot (4-loop), type XXVI nylon suspension sling to each tandem link with a large clevis.

② Raise the slings and install the deadman’s tie 6 to 8 inches above the load.

③ Position a 6- by 60-inch piece of felt around each front suspension sling 33 inches from the suspension clevis. Cover the padding completely with tape, extending the tape 6 inches above and below the padding.

④ Position a 6- by 36-inch piece of felt around each rear suspension sling 31 inches from the suspension clevis. Secure the padding as described in step 3 above.

⑤ Secure the suspension slings to the body side boards with type III nylon cord.

Figure 3-31. Suspension Slings Installed, Padded and Safety Tied
STOWING CARGO PARACHUTES

3-23. Stow and restrain three G-11 cargo parachutes on the load according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/ NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5, and as shown in Figure 3-32.

1. Place and cluster three G-11 cargo parachutes on the honeycomb over the truck hood according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/ NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5.

2. Tie the front restraint straps to clevises 8 and 8A.

3. Tie the rear restraint straps to the 27th bushings on each side of the platform.

4. Install a multi-cut parachute release strap on the restraint straps on each side according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/ NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5.

**Figure 3-32. Cargo Parachutes Installed**
INSTALLING PARACHUTE-release

3-24. Prepare and install an M-2 cargo parachute release according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5 and as shown in Figure 3-33.

Note. The M-2 cargo parachute release is used on this load to accommodate the 4-loop suspension slings.

1. Place the M-2 release on the roof honeycomb in front of the parachutes.
2. S-fold the slack in the suspension slings. Tie the folds with type I, ¼-inch cotton webbing.
3. Attach the suspension slings and the riser extensions to the release. Tie the release to convenient points on the load with type III nylon cord.

Figure 3-33. M-2 Release Installed
INSTALLING EXTRACTION SYSTEM

3-25. Install the extraction force transfer coupling extraction system according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/ NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5, and as shown in Figure 3-34.

1. Install the extraction force transfer coupling actuator mounting brackets in the front mounting holes in the left platform rail.
2. Attach a 16-foot release cable to the actuator. Install the actuator to the extraction force transfer coupling actuator mounting brackets.
3. Install the latch assembly to the extraction bracket. Attach the release cable to the latch assembly.
4. Tie the release cable to tiedown ring D8 on the rear platform panel with a length of type I, ¼-inch cotton webbing.
5. Install a 9-foot (2-loop), type XXVI nylon webbing deployment line on the load.

Figure 3-34. extraction force transfer coupling Installed
INSTALLING PROVISIONS FOR EMERGENCY RESTRAINTS

3-26. Install provisions for emergency restraints according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5.

PLACING EXTRACTION PARACHUTE

3-27. Select the extraction parachute and extraction line needed, using the extraction line requirements table in TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5. Rig the extraction line in a line bag according to TM 10-1670-286-20/TO 13C5-2-41. Place the extraction parachute and extraction line on the load for installation in the aircraft.

MARKING RIGGED LOAD

3-28. Mark the rigged load according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5 and as shown in Figure 3-35. Complete Shipper’s Declaration for Dangerous Goods according to AFMAN 24-204/TM 38-250. If the load varies from the one shown, the weight, height, CB, and parachute requirements must be recomputed.

EQUIPMENT REQUIRED

Use the equipment listed in Table 3-2 on page 3-51 to rig the load.
CAUTION

Make the final rigger inspection required by TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/ NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5 before the load leaves the rigging site.

Rigged Load Data

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weight: Load shown</td>
<td>15,240 pounds</td>
</tr>
<tr>
<td>Maximum load allowed</td>
<td>15,240 pounds</td>
</tr>
<tr>
<td>Height (with three G-11B parachutes)</td>
<td>98 inches</td>
</tr>
<tr>
<td>Width</td>
<td>108 inches</td>
</tr>
<tr>
<td>Length (overall)</td>
<td>210 inches</td>
</tr>
<tr>
<td>Overhang: Front</td>
<td>0 inches</td>
</tr>
<tr>
<td>Rear (extraction force transfer coupling)</td>
<td>18 inches</td>
</tr>
<tr>
<td>Center of balance (CB) (from front edge of platform)</td>
<td>92 inches</td>
</tr>
</tbody>
</table>

Figure 3-35. M1114 Up-Armored Armament Carrier Rigged for Low-Velocity Airdrop
Table 3-2. Equipment Required for Rigging the M1114 Up-Armored Armament Carrier for Low-Velocity Airdrop

<table>
<thead>
<tr>
<th>National Stock Number</th>
<th>Item</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>8040-00-273-8713</td>
<td>Adhesive paste, 1-gallon</td>
<td>As required</td>
</tr>
<tr>
<td>4030-00-090-5354</td>
<td>Clevis, suspension, 1-inch (large)</td>
<td>5</td>
</tr>
<tr>
<td>1670-00-360-0328</td>
<td>Cover, clevis, large</td>
<td>1</td>
</tr>
<tr>
<td>4020-00-240-2146</td>
<td>Cord, nylon, type III, 550-pound</td>
<td>As required</td>
</tr>
<tr>
<td>1670-00-434-5785</td>
<td>Coupling, Airdrop Extraction Force Transfer, w/16-foot cable</td>
<td>1</td>
</tr>
<tr>
<td>8135-00-664-6958</td>
<td>Cushioning material (Cellulose wadding)</td>
<td>As required</td>
</tr>
<tr>
<td>1670-01-475-1990</td>
<td>Extraction Parachute Jettison System Light</td>
<td>1</td>
</tr>
<tr>
<td>8305-00-958-3685</td>
<td>Felt, ⅛-inch thick</td>
<td>As required</td>
</tr>
<tr>
<td>1670-01-183-2678</td>
<td>Leaf, extraction line (line bag) (for C-130)</td>
<td>2</td>
</tr>
<tr>
<td>1670-01-183-2678</td>
<td>Leaf, extraction/drogue line (line bag) (for C-17/C130J)</td>
<td>4</td>
</tr>
<tr>
<td>Line extraction:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1670-01-062-6313</td>
<td>60-foot (3-loop), type XXVI (for C-130/J)</td>
<td>1</td>
</tr>
<tr>
<td>1670-01-107-7651</td>
<td>140-foot (3-loop), type XXVI (for C-17)</td>
<td>1</td>
</tr>
<tr>
<td>1670-01-064-4452</td>
<td>60-foot (1-loop), type XXVI (for C-17/C-130J), (drogue line)</td>
<td>1</td>
</tr>
<tr>
<td>1670-01-493-6418</td>
<td>Link assembly, two-point, ¾-inch, small:</td>
<td>1</td>
</tr>
<tr>
<td>5306-00-435-8994</td>
<td>Bolt, 1-inch diameter, 4-inches long</td>
<td>2</td>
</tr>
<tr>
<td>5310-00-232-5165</td>
<td>Nut, 1-inch diameter, 4-inches long</td>
<td>2</td>
</tr>
<tr>
<td>1670-00-003-1953</td>
<td>Plate, side 3 ¾-inches</td>
<td>2</td>
</tr>
<tr>
<td>5365-00-007-3414</td>
<td>Spacer, large</td>
<td>2</td>
</tr>
<tr>
<td>Lumber:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5510-00-220-6196</td>
<td>2- by 6- by 72-inch</td>
<td>As required</td>
</tr>
<tr>
<td>5510-00-220-6274</td>
<td>4- by 4- by 96-inch</td>
<td>As required</td>
</tr>
<tr>
<td>5315-00-010-4659</td>
<td>Nail, steel, wire, 8D</td>
<td>As required</td>
</tr>
<tr>
<td>1670-00-753-3928</td>
<td>Pad, energy-dissipating (honeycomb) 3- by 35- by 96-inches</td>
<td>13 sheets</td>
</tr>
<tr>
<td>1670-01-016-7841</td>
<td>Parachute, cargo, G-11B</td>
<td>3</td>
</tr>
<tr>
<td>Parachute, cargo, extraction:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1670-01-063-3716</td>
<td>22-foot (for C-17, use H-block with this parachute) Drogue (for C-17)</td>
<td>1</td>
</tr>
<tr>
<td>1670-01-063-3715</td>
<td>15-foot (for C-17/C130J) (DES)</td>
<td>1</td>
</tr>
<tr>
<td>Platform, airdrop, type V, 16-foot:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1670-01-353-8424</td>
<td>Bracket, assembly, extraction</td>
<td>1</td>
</tr>
<tr>
<td>1670-01-353-8425</td>
<td>Bracket, assembly, coupling</td>
<td>1</td>
</tr>
<tr>
<td>1670-01-162-2372</td>
<td>Clevis assembly (type V)</td>
<td>21</td>
</tr>
<tr>
<td>1670-01-162-2381</td>
<td>Tandem link assembly (Multipurpose link)</td>
<td>4</td>
</tr>
<tr>
<td>5530-00-128-4981</td>
<td>Plywood, 3/4-inch</td>
<td>4 sheets</td>
</tr>
</tbody>
</table>
Table 3-2. Equipment Required for Rigging the M1114 Up-Armored Armament Carrier for Low-Velocity Airdrop (continued)

<table>
<thead>
<tr>
<th>National Stock Number</th>
<th>Item</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1670-01-097-8816</td>
<td>Release, cargo parachute, M-1</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Sling, cargo, airdrop:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>For Deployment</td>
<td></td>
</tr>
<tr>
<td>1670-01-062-6304</td>
<td>9-foot (2-loop), type XXVI nylon webbing</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>For Lifting</td>
<td></td>
</tr>
<tr>
<td>1670-01-062-6304</td>
<td>9-foot (2-loop), type XXVI nylon webbing</td>
<td>2</td>
</tr>
<tr>
<td>1670-01-062-6303</td>
<td>12-foot (2-loop), type XXVI nylon webbing</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>For Suspension</td>
<td></td>
</tr>
<tr>
<td>1670-01-063-7761</td>
<td>16-foot (2-loop), type XXVI nylon webbing</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>For Riser Extension</td>
<td></td>
</tr>
<tr>
<td>1670-01-062-6302</td>
<td>60-foot (3-loop), type XXVI nylon webbing</td>
<td>3</td>
</tr>
<tr>
<td>4910-01-313-8839</td>
<td>Spreader bar assembly</td>
<td>1</td>
</tr>
<tr>
<td>5340-00-040-8219</td>
<td>Strap, parachute, release, multi-cut, comes with 3 knives</td>
<td>2</td>
</tr>
<tr>
<td>7501-00-266-5016</td>
<td>Tape, adhesive, 2-inch</td>
<td>As required</td>
</tr>
<tr>
<td>1670-00-937-0271</td>
<td>Tiedown assembly, 15-foot</td>
<td>20</td>
</tr>
<tr>
<td>1670-01-344-0825</td>
<td>Vehicle drive-off aid</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Webbing:</td>
<td></td>
</tr>
<tr>
<td>8305-00-268-2411</td>
<td>Cotton, 1/4-inch, type I</td>
<td>As required</td>
</tr>
<tr>
<td>8305-00-082-5752</td>
<td>Nylon, tubular, 1/2-inch</td>
<td>As required</td>
</tr>
<tr>
<td>8305-00-559-6871</td>
<td>Nylon, type VIII</td>
<td>As required</td>
</tr>
</tbody>
</table>
SECTION III – RIGGING M1151 ARMAMENT CARRIER WITH ACCOMPANYING LOAD ON A 16-FOOT PLATFORM

DESCRIPTION OF LOAD

3-29. The M1151 HMMWV shown in Figure 3-36 is rigged with an accompanying load on a 16-foot, type V platform. The load uses three G-11 cargo parachutes and the accompanying load has a minimum weight of 1,300 pounds and a maximum weight of 2,000 pounds. This load is 93 inches high, 108 inches wide, and 215 inches long.

PREPARING PLATFORM

Prepare a 16-foot, type V airdrop platform according to TM 10-1670-268-20&P/TO 13C7-52-22. Install four tandem links and platform clevises according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5 and as shown in Figure 3-37.
Steps:

1. Install a tandem link on the front of each platform side rail using holes 1, 2, and 3.
2. Install a tandem link on the rear of each platform side rail using holes 30, 31, and 32.
3. Install a clevis on bushing 1 on each front tandem link.
4. Install a clevis on bushing 4 on each rear tandem link.
5. Starting at the front of each platform side rail, install clevises bolted on each platform side rail using the bushings bolted on holes 5, 15, 17 (tripled), 20, and 21.
6. Starting at the front of the platform, number the clevises bolted to the right side from 1 through 8 and those bolted to the left side from 1A through 8A.
7. Label the tiedown rings according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/ NAVSEA SS400-AB-MM0-010 REV 1/TO 13C7-1-5.

Figure 3-37. Platform Prepared
PREPARING AND POSITIONING HONEYCOMB STACKS

3-30. Build the honeycomb stacks as shown in Figures 3-38 through 3-40. Position the stacks on the platform as shown in Figure 3-41.

1. Make a 12- by 30-inch cutout in the left and right front corners of a 36- by 90-inch piece of honeycomb to form a base.

2. Make a 12- by 12-inch cutout in the left and right front corners of four 36- by 54-inch pieces of honeycomb. Glue the four pieces flush together over the base.

3. Center two 30- by 36-inch pieces of honeycomb over the pieces placed in step 2, and glue them in place.

4. Nail two 30- by 24-inch pieces of ¾-inch plywood together. Glue the plywood flush over the rear edges of the honeycomb placed in step 3 above.

5. Glue three 30- by 12-inch pieces of honeycomb to the front of the stack, aligned with the plywood.

6. Center and glue a 20- by 24-inch piece of honeycomb over the plywood.

7. Nail two 30- by 12-inch pieces of ¾-inch plywood together, and glue the plywood flush over the honeycomb placed in step 5 above.

Figure 3-38. Stack 1 Constructed
Notes. 1. All measurements are given in inches.
2. This drawing is not drawn to scale.

① Glue two 43- by 26-inch pieces of honeycomb together to form a base.
② Center and glue three 43- by 18-inch pieces of honeycomb over the base.
③ Nail three pieces of ¾- by 43- by 18-inch plywood together.
④ Nail a 43-inch piece of 2- by 4-inch lumber parallel to each long side and 1 ½ inches from each long edge of plywood formed in step 3.
⑤ Make a 3 ½- by 5-inch cutout in a fourth ¾- by 43- by 18-inch piece of plywood as shown. Nail the lumber in step 4 and flush with the bottom pieces of plywood. Glue the wooden section of the stack flush on the honeycomb placed in step 2 above.
⑥ Make the cutout as shown in two 39- by 18-inch pieces of honeycomb. Glue the honeycomb flush to the right side over the plywood, with the cutout facing the rear of the stack.

Figure 3-39. Stack 2 Constructed
Note. This drawing is not drawn to scale.

1. Cut an 80-by 24-inch piece of honeycomb to form a base. Center and glue give 35- by 24-inch pieces of honeycomb on tape of the 80- by 24-inch piece of honeycomb.

2. Nail two 21- by 24-inch pieces of ¾-inch plywood to each other. Nail two pieces of 2-by 4- by 21-inch lumber flush along each side and in the center of the plywood.

3. Nail a 24-inch piece of 2- by 4-inch lumber flush along the right side.

4. Nail a 17- by 24-inch piece of ¾-inch plywood flush with the left side.

5. Nail a 24-inch piece of 2- by 4-inch lumber flush with the left edge of the plywood placed in step 4 above.

6. Nail a 3 ½- by 24-inch piece of ¾-inch plywood flush over the lumber placed in step 5 above.

7. Glue a 13- by 5-inch piece of honeycomb along the rear edge of the plywood flush against the plywood and lumber placed in steps 5 and 6 above.

Figure 4-40. Stack 3 Constructed
Notes. 1. All measurements are given in inches.  
2. This drawing is not drawn to scale.

<table>
<thead>
<tr>
<th>Stack Number</th>
<th>Position on Platform</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Place stack:</td>
</tr>
<tr>
<td></td>
<td>Centered 9 inches from the front edge of the platform.</td>
</tr>
<tr>
<td>2</td>
<td>Centered 89 inches from the front edge of the platform and face the cutout to the rear.</td>
</tr>
<tr>
<td>3</td>
<td>Centered 149 inches from the front edge of the platform.</td>
</tr>
</tbody>
</table>

Figure 3-41. Honeycomb Stacks Positioned on Platform
PREPARING THE TRUCK

3-31. Prepare the truck as described in Figures 1-6, 1-7 (do not do steps 1 and 3), Figure 1-8, Figure 1-9 does not apply to closed body vehicles. Continue preparing the vehicle as shown Figure 1-10 through 1-11. Finish preparing the closed-body HMMWV’s as shown in Figures 2-2 and 2-3 omit step 3.

Notes. 1. All measurements are given in inches.
2. This drawing is not drawn to scale.

① Build the turret housing support as shown. Nail the lumber together with 8d nails.
② Close the turret cover and secure it with the fasteners provided (not shown).
③ Center the support under the turret housing with the front end of the support toward the front end of the truck. Tie the support in place with two lengths of type III nylon cord.

Figure 3-42. Turret Support Built and Placed
**Notes.** 1. All measurements are given in inches.
2. This drawing is not drawn to scale.

1. Tape all lights and reflectors.
2. On trucks equipped with the brush guard, cover the front side with an 83- by 14-inch piece of honeycomb tied in place with type III nylon cord.
3. Center an 83- by 6-inch piece of honeycomb along the front edge of the hood.
4. Place two 36- by 83-inch pieces of honeycomb, with cutouts as shown, over the hood. Tape the upper edges of the top piece. Tie the honeycomb in place with a length of type III nylon cord. Tie the cord to a hood latch, pass it through the grille, and tie off to the other hood latch.
5. Place two 83- by 15-inch pieces of honeycomb just behind the honeycomb placed in step 2 above. Tape the top outside edges. Secure the honeycomb to the hood latch brackets with type III nylon cord.
6. Tape the hood latches.
7. Lower all side windows and open the truck doors. Place a 21- by 83-inch piece by honeycomb against the windshield. Tie a length of type III nylon cord around the honeycomb and the inside of the windshield frame.

*Figure 3-43. Truck Body Prepared*
8 Secure the window in the down position with a length of ½-inch tubular nylon webbing. Secure with a slip knot on the inside of the door.

9 Cover the roof with four 82- by 36-inch pieces by honeycomb. Tape the upper 36-inch edges. Tie four lengths of type III nylon cord over the honeycomb and through the door openings.

10 Pass 15-foot lashings through the door openings on each side of the truck and close the doors. Cut a 45-degree bevel in each end of the two pieces of 2- by 4- by 69 ½-inch lumber. Rest the long side of each piece of lumber over the window openings and even with the front edge of the windshield frame. Pass the free ends of the lashings down over the lumber and through the windows. Secure the lashings inside the truck.

11 Pad the upper rear corner of the door and the end of the rain gutter with a 12- by 12-inch piece of felt taped in place.

12 Tape the front and rear ends of the lumber to the windshield frame and to the padding over the rear gutter.

13 Pad the mirrors with cellulose wadding taped in place. Fold the mirrors inward and tie them together through the cab of the truck.

Figure 3-43. Truck Body Prepared (continued)
3-32. Stow and accompanying load of 1,300 to 2,000 pounds in the cargo area of the truck. Use or adapt the procedures shown in Figure 3-44. Make sure the accompanying load complies with the restrictions outlined in TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5.

1. Cut a 36- by 16-inch piece of honeycomb and position it against the rear turret support.
2. Cut a 36- by 43-inch piece of honeycomb and position it against the honeycomb in step 1.
3. Position two 15-foot lashings lengthwise 6 inches from each outside edge of honeycomb.
4. Position two 15-foot lashings widthwise 6 inches from the front and rear edge of the honeycomb positioned in step 1 and 2.

Figure 3-44. Accompanying Load Stowed in Truck
5. Position three 105-millimeter (mm) ammunition boxes lengthwise on top of the honeycomb. The boxes should be flush with the front edge of the 36- by 16-inch piece of honeycomb. Ensure the 15-foot lashing is running widthwise under the rear end of the ammunition boxes.

6. Position two 105-mm ammunition boxes widthwise flush against the ammunition boxes in step 5. Ensure the 15-foot lashing is running widthwise and is entered under the rear ammunition box.

Figure 3-44. Accompanying Load Stowed in Truck (continued)
Figure 3-44. Accompanying Load Stowed in Truck (continued)

7 Position five ammunition boxes widthwise on top of the first layer of ammunition. The boxes should be flush with the bottom edges against the turret support.

8 Position three ammunition boxes lengthwise flush against the turret support on top of the previously placed ammunition boxes.

9 Cut two 17- by 36-inch pieces of honeycomb and position them to the rear of the boxes in step 8. Tape the edge of the honeycomb where the lashing makes contact.
Secure the four pre-positioned lashings and secure with a D-ring and load binder.

Figure 3-44. Accompanying Load Stowed in Truck (continued)
⑪ Route a 30-foot lashing through the left rear tiedown ring. Bring both ends over the boxes diagonally. Route the lashing through the right front tiedown ring. Secure the lashing over the load making sure to split the lashing on the corners.

⑫ Repeat step 11 using the right rear and left front tiedown rings.

⑬ Close the latch the tailgate and hatch. Fold and tape the cargo straps. Run a length of ½-inch tubular nylon webbing under the cargo straps and through the hatch cover handle. Tie the running ends to the tailgate hood brackets.

Figure 3-44. Accompanying Load Stowed in Truck (continued)
LIFTING AND POSITIONING TRUCK AND INSTALLING OPTIONAL DRIVEOFF AIDS

3-33. Install the optional drive-off aids on the platform as show in Figure 2-15. Install lifting slings on the truck as shown in Figure 1-15 and position the truck as shown in Figure 3-45.

① Lift and position the truck so the rear tires are centered on stack 1. The rear bumper brackets should be behind the front highest portion of the stack. The truck will overhang the front edge of the platform by 5 inches.

② Ensure the frame cross members rest securely on the 6 inch part of the front honeycomb of stack 2.

③ Ensure that the suspension cross member sets securely on stacks 1 and 3.

④ Attach optional drive-off aid as shown in Figure 1-17 (not shown).

Figure 3-45. Truck Positioned
LASHING TRUCK

3-34. Lash the truck to the platform with fifteen 15-foot tiedown assemblies as shown in Figures 3-46 and 3-47, and according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/ NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5.

<table>
<thead>
<tr>
<th>Lashing</th>
<th>Tiedown Clevis Number</th>
<th>Instructions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Pass lashing:</td>
</tr>
<tr>
<td>1</td>
<td>1</td>
<td>Through tiedown bracket behind left rear coil spring.</td>
</tr>
<tr>
<td>2</td>
<td>1A</td>
<td>Through tiedown bracket behind right rear coil spring.</td>
</tr>
<tr>
<td>3</td>
<td>2</td>
<td>Through left rear lifting shackle.</td>
</tr>
<tr>
<td>4</td>
<td>2A</td>
<td>Through right rear lifting shackle.</td>
</tr>
<tr>
<td>5</td>
<td>3</td>
<td>Around left rear lower control arm.</td>
</tr>
<tr>
<td>6</td>
<td>3A</td>
<td>Around right rear lower control arm.</td>
</tr>
<tr>
<td>7</td>
<td>4</td>
<td>Through tiedown bracket in front of left rear coil spring.</td>
</tr>
<tr>
<td>8</td>
<td>4A</td>
<td>Through tiedown bracket in front of right rear coil spring.</td>
</tr>
<tr>
<td>9</td>
<td>5 and 5A</td>
<td>Pass a 15-foot lashing through clevis 5A and through its own D-ring. Pass the lashing through the hole in stack 2. Attach the lashing to clevis 5 with a load binder.</td>
</tr>
</tbody>
</table>

Figure 3-46. Lashings 1 Through 9 Installed
<table>
<thead>
<tr>
<th>Lashing</th>
<th>Tiedown Clevis Number</th>
<th>Instructions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pass lashing:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>6</td>
<td>Through tiedown bracket behind left front coil spring.</td>
</tr>
<tr>
<td>11</td>
<td>6A</td>
<td>Through tiedown bracket behind right front coil spring.</td>
</tr>
<tr>
<td>12</td>
<td>7</td>
<td>Around left lower control arm.</td>
</tr>
<tr>
<td>13</td>
<td>7A</td>
<td>Around right lower control arm.</td>
</tr>
<tr>
<td>14</td>
<td>8</td>
<td>Through tiedown bracket on end of left frame rail.</td>
</tr>
<tr>
<td>15</td>
<td>8A</td>
<td>Through tiedown bracket on end of right frame rail.</td>
</tr>
</tbody>
</table>

Figure 3-47. Lashings 10 Through 15 Installed
INSTALLING AND SAFETY SUSPENSION SLINGS

3-35. Install, pad and safety tie four 16-foot 2-loop type XXVI nylon suspension slings as shown in Figure 1-20.

STOWING CARGO PARACHUTES

3-36. Stow and restrain three G-11 cargo parachutes on the load according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5, and as shown in Figure 3-48.

1. Place and cluster three G-11 cargo parachutes on the honeycomb over the truck hood according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5.

2. Tie the front restraint straps to bushings 23 and 23A.

3. Tie the rear restraint straps to bushings 27 and 27A.

Figure 3-48. Cargo Parachutes Installed
INSTALLING PARACHUTE RELEASE

3-37. Prepare and install an M-1 cargo parachute release according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/ NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5, and as shown in Figure 3-49.

1. Tie a length of type I ¼-inch cotton webbing to the right rear suspension sling below the deadman’s tie. Bring the webbing diagonally over the load to the left front. Pull it taut, and tie it to the left front sling below the deadman’s tie.

2. Tie the left rear and right front suspension slings together in the same way as in step 1 above.

3. Place the M-1 release on the roof honeycomb in front of the parachutes.

4. Attach the suspension slings and riser extensions according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/ NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5. Fold the excess suspension slings and secure with type I ¼-inch cotton webbing.

5. Restrain the release to a convenient point on the load with type III nylon cord.

6. Secure the arming wire lanyard to the parachute carrying handle and S-fold and tape the excess.

Figure 3-49. M-1 Release Installed
INSTALLING EXTRACTION SYSTEM

3-38. Install the extraction force transfer coupling extraction system according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/ NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5 and as shown in Figure 3-34.

INSTALLING PROVISIONS FOR EMERGENCY RESTRAINTS

3-39. Install provisions for emergency restraints according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/ NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5.

PLACING EXTRACTION PARACHUTE

3-40. Select the extraction parachute and extraction line needed, using the extraction line requirements table in TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/ NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5. Rig the extraction line in a line bag according to TM 10-1670-286-20/TO 13C5-2-41. Place the extraction parachute and extraction line on the load for installation on the aircraft.

MARKING RIGGED LOAD

3-41. Mark the rigged load according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/ NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5 and as shown in Figure 3-50. Complete Shipper’s Declaration for Dangerous Goods according to AFMAN 24-204/TM 38-250/NAVSUB PUB 505/MCO P 4030.19H/DLAI 4145.3 If the load varies from the one shown, the weight, height, CB, and parachute requirements must be recomputed.

EQUIPMENT REQUIRED

3-42. Use the equipment listed in Table 3-3 on page 3-74 to rig this load.
CAUTION
Make the final rigger inspection required by TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/ NAVSEA SS400-AB-MM0-010 REV 1/TO 13C7-1-5 and AR 59-4/OPNAVINST 4463.24C/AFJ 13-210(1)/MCO 13480.1B before the load leaves the rigging site.

Rigged Load Data

Weight: Load Shown .......................................................... 11,340 pounds
Maximum load allowed ....................................................... 12,100 pounds
Height (with three G-11B parachutes) ......................... 93 inches
Width .................................................................................. 108 inches
Length .............................................................................. 215 inches
Overhang: Front (vehicle) .................................................. 5 inches
  Rear (extraction force transfer coupling) ...................... 18 inches
  Rear (extraction parachute jettison system) .............. 30 inches
  Center of Balance (CB) (from front edge of platform) .... 96 inches

Figure 3-50. M1151 Expanded Capacity Armament Carrier
Table 3-3. Equipment Required for Rigging the M1151 Expanded Capacity Armament Carrier for Low-Velocity Airdrop

<table>
<thead>
<tr>
<th>National Stock Number</th>
<th>Item</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>8040-00-273-8713</td>
<td>Adhesive paste, 1-gallon</td>
<td>As required</td>
</tr>
<tr>
<td>4030-00-090-5354</td>
<td>Clevis, suspension, 1-inch (large)</td>
<td>5</td>
</tr>
<tr>
<td>4030-00-678-8562</td>
<td>Clevis, suspension, ¾-inch (medium)</td>
<td>2</td>
</tr>
<tr>
<td>1670-00-360-0328</td>
<td>Cover, clevis, large</td>
<td>3</td>
</tr>
<tr>
<td>4020-00-240-2146</td>
<td>Cord, nylon, type III, 550-pound</td>
<td>As required</td>
</tr>
<tr>
<td>1670-00-434-5785</td>
<td>Coupling, Airdrop Extraction Force Transfer, w/16-foot cable</td>
<td>1</td>
</tr>
<tr>
<td>8135-00-664-6958</td>
<td>Cushioning material (Cellulose wadding)</td>
<td>As required</td>
</tr>
<tr>
<td>8305-00-958-3685</td>
<td>Felt, ½-inch thick</td>
<td>As required</td>
</tr>
<tr>
<td>1670-00-003-4391</td>
<td>Knife, parachute bag (for C-17)</td>
<td>1</td>
</tr>
<tr>
<td>1670-01-183-2678</td>
<td>Leaf, extraction line (line bag)</td>
<td>2</td>
</tr>
<tr>
<td>1670-01-064-4452</td>
<td>60-foot (1-loop), type XXVI (for C-17/C130J), (drogue line) Line extraction:</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>60-foot (3-loop), type XXVI (for C-130/J)</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>140-foot (3-loop), type XXVI (for C-17)</td>
<td>1</td>
</tr>
<tr>
<td>5306-00-435-8994</td>
<td>Bolt, 1-inch diameter, 4-inches long</td>
<td>4</td>
</tr>
<tr>
<td>5310-00-232-5165</td>
<td>Nut, 1-inch diameter, 4-inches long</td>
<td>4</td>
</tr>
<tr>
<td>1670-00-003-1953</td>
<td>Plate, side 3 ¾-inches</td>
<td>4</td>
</tr>
<tr>
<td>5365-00-007-3414</td>
<td>Spacer, large</td>
<td>4</td>
</tr>
<tr>
<td>5510-00-220-6448</td>
<td>2- by 6- by 72-inch</td>
<td>As required</td>
</tr>
<tr>
<td>5510-00-220-6274</td>
<td>4- by 4- by 96-inch</td>
<td>As required</td>
</tr>
<tr>
<td>5315-00-010-4659</td>
<td>Nail, steel, wire, 8D</td>
<td>As required</td>
</tr>
<tr>
<td>1670-00-753-3928</td>
<td>Pad, energy-dissipating (honeycomb) 3- by 36- by 96-inches</td>
<td>10 sheets</td>
</tr>
<tr>
<td>1670-01-016-7841</td>
<td>Parachute, cargo, G-11B</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Parachute, cargo, extraction:</td>
<td></td>
</tr>
<tr>
<td>1670-01-063-3716</td>
<td>22-foot (for C-17, use H-block with this parachute) Drogue (for C-17)</td>
<td>1</td>
</tr>
<tr>
<td>1670-01-063-3715</td>
<td>15-foot (for C-17/C130J) (DES)</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Platform, airdrop, type V, 16-foot:</td>
<td></td>
</tr>
<tr>
<td>1670-01-353-8424</td>
<td>Bracket, assembly, extraction</td>
<td>1</td>
</tr>
<tr>
<td>1670-01-353-8425</td>
<td>Bracket, assembly, coupling</td>
<td>1</td>
</tr>
<tr>
<td>1670-01-162-2372</td>
<td>Clevis assembly (type V)</td>
<td>18</td>
</tr>
<tr>
<td>1670-01-162-2381</td>
<td>Tandem link assembly (Multipurpose link)</td>
<td>4</td>
</tr>
<tr>
<td>5530-00-128-4981</td>
<td>Plywood, 3/4-inch</td>
<td>3 sheets</td>
</tr>
</tbody>
</table>
Table 3-3. Equipment Required for Rigging the M1151 Expanded Capacity Armament Carrier for Low-Velocity Airdrop (continued)

<table>
<thead>
<tr>
<th>National Stock Number</th>
<th>Item</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1670-01-097-8816</td>
<td>Release, cargo parachute, M-1</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Sling, cargo, airdrop:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>For Deployment</td>
<td></td>
</tr>
<tr>
<td>1670-01-062-6304</td>
<td>9-foot (2-loop), type XXVI nylon webbing</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>For Lifting</td>
<td></td>
</tr>
<tr>
<td>1670-01-062-6304</td>
<td>9-foot (2-loop), type XXVI nylon webbing</td>
<td>2</td>
</tr>
<tr>
<td>1670-01-062-6303</td>
<td>12-foot (2-loop), type XXVI nylon webbing</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>For Suspension</td>
<td></td>
</tr>
<tr>
<td>1670-01-063-7761</td>
<td>16-foot (2-loop), type XXVI nylon webbing</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>For Riser Extension</td>
<td></td>
</tr>
<tr>
<td>1670-01-062-6302</td>
<td>60-foot (3-loop), type XXVI nylon webbing</td>
<td>3</td>
</tr>
<tr>
<td>5340-00-040-8219</td>
<td>Strap, parachute, release, multi-cut, comes with 3 knives</td>
<td>2</td>
</tr>
<tr>
<td>7501-00-266-5016</td>
<td>Tape, adhesive, 2-inch</td>
<td>As required</td>
</tr>
<tr>
<td>1670-00-937-0271</td>
<td>Tiedown assembly, 15-foot</td>
<td>27</td>
</tr>
<tr>
<td>1670-01-483-8259</td>
<td>Towplate, release mechanism (H-block) (for C-17)</td>
<td>1</td>
</tr>
<tr>
<td>1670-01-431-8486</td>
<td>Vehicle drive-off aid</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Webbing:</td>
<td></td>
</tr>
<tr>
<td>8305-00-268-2411</td>
<td>Cotton, 1/4-inch, type I</td>
<td>As required</td>
</tr>
<tr>
<td>8305-00-082-5752</td>
<td>Nylon, tubular, 1/2-inch</td>
<td>As required</td>
</tr>
<tr>
<td>8305-00-268-2455</td>
<td>Nylon, tubular, 1-inch</td>
<td>As required</td>
</tr>
<tr>
<td>8305-00-263-3591</td>
<td>Nylon, type VIII</td>
<td>As required</td>
</tr>
</tbody>
</table>
SECTION IV: RIGGING THE M1151A1B1 ARMOR KIT ENHANCED ARMAMENT CARRIER WITH LONG RANGE ADVANCED SCOUT SURVEILLANCE SYSTEM (LRAS3) NEW DOORS AND ACCOMPANYING LOAD FOR LOW-VELOCITY AIRDROP

DESCRIPTION OF LOAD

3-43. The M1151A1B1 armor kit truck is equipped with long range advanced scout surveillance system (LRAS3) integrated air conditioning system, two parallel condenser assemblies located above each of the rear wheel wells and new variable rate rear springs. The B2 armor kit is an intergraded armor package (IAP), including underbodies, rocket armor and lower windshield deflector armor and new doors. The truck shown in Figure 3-51 is rigged on a 16-foot, type V platform. The load uses three G-11 cargo parachutes and accompanying load has a maximum weight of 778 pounds. This load is 96 inches high, 108 inches wide and 214 inches long.

PREPARING PLATFORM

3-44. Prepare a 16-foot, type V airdrop platform according to TM 10-1670-268-20&P/TO 13C7-52-22. Install four tandem links and platform clevises according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5 and as shown in Figure 3-52.

Figure 3-51. M1151A1B1 Armament Carrier with Long Range Advanced Scout Surveillance System
Step:

1. Inspect, or assemble and inspect, a 16-foot, type V platform as outlined in TM 10-1670-268-20&P/TO 13C7-52-22.
2. Install a tandem link to the front of each platform side rail using holes 1, 2, and 3.
3. Install a tandem link on the rear of each platform side rail using holes 30, 31, and 32.
4. Install a clevis on bushing 1 on each front tandem link.
5. Install a clevis on bushing 4 on each rear tandem link.
6. Starting at the front of each platform side rail, install clevises on the bushings bolted to holes 5, 15, 17, 20, 21, and 25.
7. Starting at the front of the platform, number the clevises 1 through 8 on the right side, and 1A through 8A on the left side.
8. Label the tiedown rings according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/ NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5.

Figure 3-52. Platform Prepared

PREPARING AND POSITIONING HONEYCOMB STACKS

3-45. Build the honeycomb stacks as shown in Figures 3-53 through 3-55. Position the stacks on the platform as shown in Figure 3-56.
① Cut two 29- by 36-inch pieces of honeycomb to form a base.
② Cut a 9- by 36-inch piece of honeycomb to form a base.
③ Glue an 80- by 36-inch piece of honeycomb to the honeycomb pieces in steps 1 and 2. Glue the 29- by 36-inch pieces flush with the outside edges of the 80- by 36-inch honeycomb and glue the 9- by 36-inch piece centered on the 80-by 36-inch honeycomb.
④ Cut three 9- by 36-inch pieces of honeycomb. Glue one piece centered on the 80- by 36-inch piece of honeycomb. Glue the second and third pieces to the 80- by 36-inch honeycomb 22 inches from the 36-inch edge of the 80- by 36-inch honeycomb.
⑤ Glue a 36- by 36-inch piece of honeycomb centered on top of the honeycomb in step 4.
⑥ Cut three 9- by 36-inch pieces of honeycomb. Glue one piece centered on the 36- by 36-inch piece of honeycomb. Glue the second and third pieces to the 36- by 36-inch honeycomb flush with the outside edges.
⑦ Glue a 36- by 36-inch piece of honeycomb centered on top of the honeycomb in step 6.
⑧ Glue five 36- by 9-inch pieces of honeycomb flush with the front edge of the 36- by 36-inch honeycomb.

Figure 3-53. Stack 1 Constructed
9 Cut a 36- by 9- by ¾-inch piece of plywood to form a base.

10 Cut two 2- by 4- by 36-inch pieces of lumber. Nail and glue the lumber flush along the 36-inch sides of the plywood.

11 Cut a 36- by 9- by ¾-inch piece of plywood. Nail and Glue the plywood flush with the lumber in step 10. Glue the entire lumber stack flush with the honeycomb in step 8.

12 Nail and glue two 30- by 24- by ¾-inch piece of plywood flush together.

13 Cut six 2- by 4- by 30-inch pieces of lumber. Nail and glue two pieces of lumber flush together. Make three stacks. Center and nail one stack on the plywood in step 12. Nail the other two stacks flush with the 30-inch edges of the plywood in step 12.

14 Nail and glue a 30- by 24- by ¾-inch piece of plywood flush on top of the lumber in step 13. Glue the entire wood stack centered on the honeycomb base.

15 Glue a 30- by 24-inch piece of honeycomb flush on top of the plywood in step 14.

16 Glue a 20- by 24-inch pieces of honeycomb centered on top of the 30- by 24-inch honeycomb.

Figure 3-53. Stack 1 Constructed (Continued)
① Cut two 10- by 56-inch pieces of honeycomb.

② Cut and position a 20- by 20-inch piece of honeycomb between the 10- by 56-inch honeycomb 30 inches from the rear edge of the stack.

③ Glue two 40- by 28-inch pieces of honeycomb flush on top of the honeycomb in steps 1 and 2.

Figure 3-54. Stack 2 Constructed
Cut six 10-by-56-inch pieces of honeycomb. Glue three pieces together flush with the 56-inch edges of the stack.

Cut and glue three 20-by-20-inch piece of honeycomb between the 10-by-56-inch honeycomb 30 inches from the rear edge of the stack. (not shown)

Glue two 40-by-28-inch pieces of honeycomb flush on top of the honeycomb in steps 4 and 5.

Cut six 8-by-56-inch pieces of honeycomb. Glue three pieces together flush with the 56-inch edges of the stack.

Cut and glue three 24-by-6-inch piece of honeycomb between the 8-by-56-inch honeycomb 35 inches from the rear edge of the stack.

Cut and glue a 2-by-6-by-24-inch piece of lumber on top of the honeycomb in step 8.

Figure 3-54. Stack 2 Constructed (Continued)
① Glue two 80- by 24-inch pieces of honeycomb to form a base.
② Center and glue five 35- by 24-inch pieces of honeycomb on top of the 80- by 24-inch piece of honeycomb.
③ Nail two 21- by 24- by 3/4-inch pieces of plywood to each other.
④ Nail a piece of 2- by 4- by 21-inch lumber flush along each side and in the center of the plywood.
⑤ Nail a 2- by 4- by 24-inch piece of lumber flush along the right side.
⑥ Nail a 17- by 24- 3/4-inch piece of plywood flush with the left side.
⑦ Nail a 2- by 4- by 24-inch piece of lumber flush with the left edge of the plywood placed in step 6.
⑧ Nail a 3 1/2- by 24- by 3/4-inch piece of plywood flush over the lumber placed in step 7.
⑨ Center and glue a 13- by 5-inch piece of honeycomb along the rear edge of the plywood placed in steps 6 above.

Figure 3-55. Stack 3 Constructed
Notes. 1. All measurements are given in inches.
2. This drawing is not drawn to scale.

<table>
<thead>
<tr>
<th>Stack Number</th>
<th>Position on Platform</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Centered 9 inches from the front edge of the platform.</td>
</tr>
<tr>
<td>2</td>
<td>Centered 81 inches from the front edge of the platform.</td>
</tr>
<tr>
<td>3</td>
<td>Centered 153 inches from the front edge of the platform.</td>
</tr>
</tbody>
</table>

Figure 3-56. Honeycomb Stacks Positioned on Platform
PLACING AND SECURING TOW BAR

3-46. Place and secure the tow bar as shown in Figure 3-57.

1. Route one 15-foot lashing from front to rear through platform tie down clevises 3A and 4A and 3B and 4B.

2. Cut a 17- by 62-inch piece of honeycomb. Tape all edges that contact the 15-foot lashings. Place honeycomb on top of previously positioned 15-foot lashings.

3. Pad tow bar with cellulose wading and tape using cloth backed tape. Place tow bar on top of 17- by 62-inch piece of honeycomb. Secure the tow bar to the platform with ½-inch tubular nylon webbing. Girth hitch ½-inch tubular nylon to the ends and secure to the nearest platform bushings.

4. Secure the lashings to themselves with load binders and D-rings.

Figure 3-57. Tow Bar Placed and Secured on Platform
PREPARING THE TRUCK

3-47. Prepare the truck as shown as shown in Figures 3-58 through 3-63.

Note. Remove the gunner protection kit (GPK) and set aside (the GPK is not dropped with the vehicle (not shown).

① Ensure the fuel tank is no more than 3/4 full (not shown).

② Ensure the batteries and battery compartment comply with Air Force Interservice Manual 24-204(I), TM 38-250, NavSup Pub 505, MCO P4030.19I, DLAI 4145.3, DCMAD1, Ch3.4 (Hm24) (not shown).

③ Remove and pad the mirrors with cellulose wadding. Place the nuts and bolts in the mounting holes and tighten in place. Cut two 4- by 15-inch pieces of honeycomb and position a piece behind each front seat. Position and secure the mirrors on top of the honeycomb pieces against the back of the seats and secure to the front seats with type III nylon cord.

④ Remove the breather cap and fording stack. Leave the cap attached to the stack. Pad the stack with cellulose wadding and tape. Secure to the left rear passenger seat with type III, nylon cord. Secure the seat belt over the stack.

Figure 3-58. Truck Prepared
⑤ Tie the engine start switch in the engine stop position with type I, 1/4-inch cotton webbing.
⑥ Tie the steering wheel to the seat frame in two places with type III nylon cord.
⑦ Tie the emergency brake handle in the off position with type III nylon cord.
⑧ Place the transmission and four-wheel drive levers in the neutral position. Secure to a convenient point with type III, nylon cord.
⑨ Tie the fire extinguisher in place with two lengths of type III nylon cord.
⑩ Tape all instrument panel gauges with masking tape.
⑪ Remove yoke from offset stove pipe. Pad with cellulose wadding and tape, secure to rear seat with type III nylon cord (not shown).
⑫ Remove yoke locking collar. Close yoke locking collar and secure clamps with ¼-inch cotton webbing. Secure the yoke locking collar to the center of the steering wheel using type III nylon cord.

Figure 3-58. Truck Prepared (Continued)
13 Secure the rear interior cab doors with two lengths of type III, nylon cord. Route the first length through each release latch and secure the opposite end to a convenient point on the roof. Secure the second piece through lower portion of the door.

14 Secure communications equipment in its mount with chains and padlocks. Tie the equipment to its mount with 1-inch tubular nylon webbing. Pad the radio handset with cellulose wadding and tie the handset to the mount with type III nylon cord (not shown).

15 Pad the front of the equipment generously with cellulose wadding taped in place.

16 Remove antennas and secure in several places with type III, nylon cord. Cellulose pad and tape the ends of the antennas. Secure the antennas to the roofs interior above the interior cab doors with type III, nylon cord.

Figure 3-58. Truck Prepared (Continued)
Notes. 1. All measurements are given in inches.
2. This drawing is not drawn to scale.

Step:
1. Build the turret housing support as shown using 8d nails.
2. Close the turret cover and secure it with the fasteners provided (not shown).
3. Center the support under the turret housing with the front end of the support toward the front end of the truck. Tie the top of the support in place with ½-inch tubular nylon and the bottom of the support with type III nylon cord to convenient points. (not shown)
4. Tie the turret brake in the DOWN position with type III nylon cord. Secure the three turret latches to holes in the turret ring with type III nylon cord (not shown).

Figure 3-59. Turret Support Prepared and Installed
1 Remove the long range advanced scout surveillance system (LRAS3) from the bracket between the rear seats. Pad the LRAS3 with felt. Make cuts in the felt to allow for hand grips, eye piece and lenses. Secure felt to LRAS3 using two pieces of type III nylon cord. Ensure the bottom piece of type nylon cord is routed over the handle grips and secures them in the downward position. Tape edges using cloth backed tape.

2 Girth hitch four suitable pieces of ½-inch tubular nylon webbing on the front and left side of the LRASSS brackets and tie the running ends together.

3 Cut one 25- by 24-inch piece of felt and place it on the LRAS3 bracket.

Note. Ensure all straps and ½-inch tubular nylon webbing are not covered up and easily accessible for securing the LRAS3 later.

4 Girth hitch two pieces of 1/2-inch nylon webbing long enough to go around the complete LRASSS on each rear cabin blast door handles.

5 Cut one 25½- by 24-inch piece of honeycomb and place it on top of the previously placed felt.

6 Cut two 25- by 5-inch pieces of honeycomb and place under front edge of the LRAS3 bracket.

Figure 3-60. LRASSS Prepared
7 Cut one “L” shaped piece of honeycomb and secure it to the rear blast doors using type III Nylon cord.

8 Place a piece of 12- by 24-inch honeycomb to the rear of the long range advanced scout surveillance system (LRAS3) honeycomb base and secure to the rear LRAS3 base brackets with type III nylon cord.

Note: When placing LRAS3 ensure the lenses is facing towards the rear and the eye piece faces forward. The LRAS3 should be snug in the “L” shaped honeycomb tied to the rear blast doors.

9 Place LRAS3 on top of the 25½- by 24-inch piece of honeycomb placed in the LRAS3 bracket. Secure the LRAS3 with the bracket straps, using the four prepositioned ½-inch tubular nylon as extensions to connect the bracket straps and tighten straps down.

10 Secure the LRAS3 with the ½-inch tubular nylon webbing from the rear blast doors around the LRAS3 as shown.

Figure 3-61. Long Range Advanced Scout Surveillance System Reinstalled and Secured
Slide all windows to the "closed" position. Secure each window closed by routing a length of type III nylon cord around the window adjusting knob and through the top door hinge and tie using a slip knot.

Girth hitch a piece of type III nylon cord to the interior door latch and route through window frame.

CAUTION

Ensuring the doors are properly closed is critical for the integral strength of the doors during airdrop. If the doors are not properly closed, damage will occur.

Note. Ensure the door latches do not move once secured.
1. Tape the fuel tank drain plug (not shown).

2. Pad the inside lower control arms at the front and rear of the truck with cellulose wadding and tape.

**Note.** When positioning the honeycomb and lumber ensure that the lumber is positioned side to side.

3. Prepare a 12-by-12-inch piece of honeycomb and a 2-by-6-by-16-inch piece of lumber to be placed under the oil pan. Center and tape the honeycomb to the lumber piece. Position the honeycomb flush against the oil pan.

4. Route a 15-foot lashing around the right front frame cross member. Ensure that the plies of the lashing are routed around the stabilizer bar.

5. Route a second 15-foot lashing around the left front frame cross member. Ensure that the plies of the lashing are routed around the stabilizer bar.

6. Route the free end of the lashing placed in step 4 around the radius rod on the left side of the cross member in front of the fuel tank.

7. Route the free end of the lashing placed in step 5 around the radius rod on the right side of the cross member in front of the fuel tank.

8. Tighten and secure both lashings over the honeycomb and lumber placed under the oil pan. Separate the load binders so that they do not interfere with each other.

**Figure 3-63. Truck Underside Prepared**
PREPARE AND SECURE THE ACCOMPANYING LOAD

3-48. Prepare and secure the accompanying load as shown in Figure 3-64.

Note. The accompanying load may vary according to unit and mission and must not exceed the accompanying load weight limit of 778 pounds.

1. Label the tiedown rings in the bed as shown above.

2. Route a 15-foot Dacron lashing through cargo bed tiedowns C and B. Leave 30-inches from D-ring to cargo bed tiedown C.

3. Route a 15-foot Dacron lashing through cargo bed tiedowns E, and A. Leave 30-inches from D-ring to cargo bed tiedown E.

4. Route a 15-foot Dacron lashing through cargo bed tiedowns D and B. Leave 30-inches from D-ring to cargo bed tiedown D.

5. Route a 15-foot Dacron lashing through cargo bed tiedowns D and A. Leave 30-inches from D-ring to cargo bed tiedown D.

Figure 3-64. Accompanying Load Prepared and Secured
⑥ Place accompanying load in the cargo bed using honeycomb to fill any extra space.
⑦ Secure the load with previously routed lashings with D-rings and load binders.
⑧ Raise and close the tailgate and pull down and close the rear cargo door (not shown).

Figure 3-64. Accompanying Load Prepared and Secured (continued)
PREPARE THE EXTERIOR OF THE TRUCK

3-49. Prepare the exterior of the truck as shown in Figure 3-65.

① Prepare a 15- by 30-inch piece of felt to cover the front left roof corner and mirror mounting brackets. Position the felt over the corner and mounting brackets and secure with 2-inch cloth-backed tape.

② Prepare a piece of felt large enough to cover the front right roof corner, fording stack mounting brackets, and mirror mounting brackets. Position the felt over the corner and mounting brackets and secure with 2-inch cloth-backed tape. (not shown).

③ Prepare a 15- by 35-inch piece of felt to cover the rear right roof corner and the end of the body support shell. Position the felt over the roof corner and support shell and secure with 2-inch cloth-backed tape. (not shown)

④ Repeat step 3 for the left rear corner.

⑤ Cover each window with felt. Secure the felt with a length of type III nylon completely around the window (not shown). Tape the felt in place with cloth backed tape.

Figure 3-65. Truck Exterior Prepared
⑥ Place a 6- by 6-inch layer of felt over the air intake hole, and tape the felt in place using 2-inch cloth-backed tape (not shown).

⑦ Pad the antenna mounts with cellulose wadding and secure with masking tape.

⑧ Tie the fuel filler cap to the body of the truck with type III nylon cord.

⑨ Tape the fuel filler opening using 2-inch cloth-backed tape.

⑩ Secure the tow-pintle by girth-hitching a length of type III, nylon cord.

⑪ Close the tailgate and hatch. Fold and tape the cargo straps. Girth hitch a doubled length of ½-inch tubular nylon webbing through either end of the tailgate hook brackets, through the cargo strap securing brackets, up through the hatch opening handle, back down through the cargo strap securing brackets, and secure to the opposite tailgate hook brackets.

⑫ Tape all lights and reflectors.

Figure 3-65. Truck Exterior Prepared (continued)
Girth hitch a 15-foot lashing to the lifting shackle on each of the four doors. Route all four running ends up over the top of the vehicle and secure with a load binder and D Ring.

Figure 3-65. Truck Exterior Prepared (continued)
3-50. Prepare the hood and roof as shown in Figure 3-66.

1. Place two 36-by 83-inch sheets of honeycomb on the roof side by side. Crush the honeycomb to allow for the turret fixtures and load binders. Cut out a space for the offset stove pipe (not shown). Place a second layer of 36-by 83-inch honeycomb with the offset stove cut out on top of the first layer. Tape the upper edges of the honeycomb. Secure the honeycomb to the lifting shackles on the doors with type III nylon cord.

2. Cut one 15- by 15-inch piece of honeycomb. Cut out the center of the honeycomb for the offset stove pipe bracket (not shown).

3. Cut and place a 15- by 15-inch piece of ¾ inch plywood on top of the honeycomb. Drill four ½-inch holes in each corner of the plywood and secure the plywood on top of the honeycomb and secure to the nearest convenient point on the load.

4. Pad the driver vision enhancer (DVE) with felt and cloth backed tape. (not shown)

5. Cut and place an 83- by 21-inch piece of honeycomb to the windshield with a notch cut out for the driver vision enhancer. Tape the outside edges and secure the honeycomb with type III nylon cord routed through the door openings and around the honeycomb.

6. Cut and place an 83- by 15-inch piece of honeycomb to the honeycomb secured to the windshield with a notch cut out for the driver vision enhancer. Tape the outside edges and secure the honeycomb with type III nylon cord routed through the door openings and around the honeycomb.

7. Place a 4- by 78-inch piece of honeycomb along the front edge of the hood (not shown).

Figure 3-66. Hood, Roof and Sideboards Prepared and Installed
Tie two 83-by-36-inch pieces of honeycomb with cutouts as shown above to the front of the hood with type III nylon cord. Tape the upper edges of the honeycomb. Route the cord through the grille and tie it on each side to the hood latches.

Place two 83-by-12-inch piece of honeycomb behind the honeycomb on the hood flush against the honeycomb placed on the windshield. Tape the outer edges and secure with type III nylon cord to the hood latches.

Tape the hood latches using 2-inch cloth-backed tape. (not shown)

Figure 3-66. Hood, Roof and Sideboards Prepared and Installed (continued)
Notes. 1. All measurements are given in inches. 2. This drawing is not drawn to scale.

11. Pass a 15-foot lashing around the upper control arm behind a front wheel and through its own D-ring. Repeat for the other side of the truck. (not shown)

12. Pass a 15-foot lashing around the upper control arm behind a rear wheel and through its own D-ring. Repeat for the other side of the truck. (not shown)

13. Tape and glue two pieces of 12- by 12-inch pieces of honeycomb in four places to a 2- by 6- by 150-inch piece of lumber spaced as shown above. Repeat for the second side board (not shown).

14. Position each body side protection board against the side of the cab. Ensure that all honeycomb pieces are flush against the front and rear fenders of the vehicle.

Note. When routing the lashings around the body side protection boards ensure to alternate the direction from top to bottom and bottom to top.

15. Bring the lashings positioned in steps 1 and 2 around the boards two turns. Secure the lashings from the left and right sides of the truck together with D-rings and load binders. (not shown)

Figure 3-66. Hood, Roof and Sideboards Prepared and Installed (continued)
LIFTING AND POSITIONING THE M1151A1B1

3-51. Lift the vehicle using the slings and position it on the honeycomb stacks as shown in Figure 3-67.

Note. Optional drive-off aids may be installed on the platform according to the procedures in TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5.

1. Center a 15 foot length of ½-inch tubular nylon webbing on top of stack one and route the free ends down and from left to right and right to left through the opening in the wood stack opening of honeycomb stack number 1.

2. Attach a 12-foot, (2-loop), type XXVI nylon webbing sling to each rear lifting shackle with a large clevis.

3. Attach a 9-foot, (2-loop), type XXVI nylon webbing sling to each front lifting point with a large clevis.

4. Position the truck so the rear tires are centered on stack 1. The rear bumper brackets should be behind the front highest portion of the stack. The truck will be 4-inches from the front edge of the platform.

5. Ensure the frame cross member rests securely on the 2- by 6- by 24-inch lumber piece of honeycomb stack 2. Ensure that the suspension cross member sets securely on stacks 1 and 3. Remove the lifting slings (not shown).

6. Secure the pre-routed ½-inch tubular nylon of honeycomb stack number 1 to the rear bumper support brackets on the left and right sides.

Figure 3-67. M1151A1B1 Lifted and Positioned
LASHING THE M1151A1B1

3-52. Lash the M1151A1 B2 to the platform according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5 and as shown in Figures 3-68 and 3-69.

<table>
<thead>
<tr>
<th>Lashing Number</th>
<th>Tiedown Clevis Number</th>
<th>Instructions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>Pass lashing: Through tiedown bracket behind the left rear coil spring.</td>
</tr>
<tr>
<td>2</td>
<td>1A</td>
<td>Through tiedown bracket behind the right rear coil spring</td>
</tr>
<tr>
<td>3</td>
<td>2</td>
<td>Through left rear lifting shackle.</td>
</tr>
<tr>
<td>4</td>
<td>2A</td>
<td>Through right rear lifting shackle</td>
</tr>
<tr>
<td>5</td>
<td>3</td>
<td>Around left rear lower control arm.</td>
</tr>
<tr>
<td>6</td>
<td>3A</td>
<td>Around right rear lower control arm</td>
</tr>
<tr>
<td>7</td>
<td>4</td>
<td>Around the control arm, and through the tiedown bracket in front of the left rear coil spring. Ensure the lashing splits the exhaust pipe.</td>
</tr>
<tr>
<td>8</td>
<td>4A</td>
<td>Around the control arm, and through the tie-down bracket in front of the right rear coil spring.</td>
</tr>
</tbody>
</table>

Figure 3-68. Lashings 1 through 8 Installed
### Instructions for Lashings 9 through 14 Installed

<table>
<thead>
<tr>
<th>Lashing Number</th>
<th>Tiedown Clevis Number</th>
<th>Instructions</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>5</td>
<td>Pass lashing: Through the tiedown bracket behind the left front coil spring.</td>
</tr>
<tr>
<td>10</td>
<td>5A</td>
<td>Through the tiedown bracket behind the right front coil spring.</td>
</tr>
<tr>
<td>11</td>
<td>6</td>
<td>Around the left lower control arm.</td>
</tr>
<tr>
<td>12</td>
<td>6A</td>
<td>Around the right lower control arm.</td>
</tr>
<tr>
<td>13</td>
<td>8</td>
<td>Through the tiedown bracket on the end of the left frame rail.</td>
</tr>
<tr>
<td>14</td>
<td>8A</td>
<td>Through the tiedown bracket on the end of the right frame rail.</td>
</tr>
</tbody>
</table>

**Figure 3-69. Lashings 9 through 14 Installed**
INSTALLING AND SAFETY TIEING THE SUSPENSION SLINGS

3-53. Install and safety tie the suspension slings as shown in Figure 3-70.

1. Attach a 16-foot (2 loop), type XXVI nylon webbing sling to each tandem link assembly with a large clevis.

2. Raise the slings and install a deadman’s tie on the suspension slings as shown in TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5.

3. Pad each suspension sling with a 6- by 60-inch length of ½-inch felt starting from 36 inches above the large clevis and secure with 2-inch cloth-backed tape extending the tape six inches above and below the padding.

4. Safety tie each sling to the body side protection boards with a length of type III, nylon cord.

Figure 3-70. Suspension Slings Installed and Safetied
STOWING CARGO PARACHUTES

3-54. Stow the parachutes as shown in Figure 3-71.

Figure 3-71. Cargo Parachutes Stowed

1. Prepare, position, and stow three G-11B cargo parachutes according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5.

2. Install the front cargo parachute restraint strap according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5. Use tiedown clevises 7 and 7A.

3. Install the rear cargo parachute restraint strap according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5 using platform bushings 27 and 27A.

4. Install a multiknife parachute release strap on the restraint straps on each side according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5.
INSTALLING THE RELEASE SYSTEM

3-55. Install the release assembly as shown in Figure 3-72.

1. Prepare and install the release assembly on top of the honeycomb over the turret according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5.

2. Attach the suspension slings and riser extensions according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5 4. Fold the excess and secure with ¼-inch cotton webbing.

3. Restrain the release to convenient points on the load using type III nylon cord.

4. Secure the arming wire lanyard to the parachute carrying handle and S-fold and tape the excess with a single wrap of masking tape.

Figure 3-72. M-1 Cargo Parachute Release Assembly Installed
INSTALLING THE EXTRACTION SYSTEM

3-56. Install the extraction force transfer coupling (extraction force transfer coupling) extraction system according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/ NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5 and as shown in Figure 3-73.

① Install the components of the extraction force transfer coupling according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/ NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5. Use the forward mounting holes for the extraction force transfer coupling brackets. Install an actuator, with a 16-foot cable, to the extraction force transfer coupling mounting brackets according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/ NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5.

② Attach a 9-foot (2-loop), type XXVI nylon sling to be used as a deployment line according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/ NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5.

③ Fold the excess deployment line, and secure the folds in place according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/ NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5.

④ Safety tie the cable to tiedown ring D8 with type I, ¼-inch cotton webbing.

Figure 3-73. Extraction System Installed
INSTALLING PROVISIONS FOR EMERGENCY RERAINTS

3-57. Install the provisions for emergency restraints on the load according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5.

PLACING EXTRACTION PARACHUTE

3-58. Select the extraction parachute and extraction line needed using the extraction line requirements table in TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5. Rig the extraction line in an extraction line bag according to TM 10-1670-286-20/TO 13C5-2-41. Place the extraction parachute and extraction line on the load for installation in the aircraft.

MARKING RIGGED LOAD

3-59. Mark the rigged load according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5 and as shown in Figure 3-74. Complete Shipper's Declaration for Dangerous Goods. If the load varies from the one shown, the weight, height, CB, and parachute requirements must be recomputed.

EQUIPMENT REQUIRED

3-60. Use the equipment listed in Table 3-4 on page 3-110 to rig this load.
CAUTION

Make the final rigger inspection required by AR 59-4 (using DD Form 1748, Joint Airdrop Inspection Record (Platforms), or appropriate DD Form 1748 series).

RIGGED LOAD DATA

Weight: Load Shown ............................................................... 14,160 pounds
Maximum load allowed ......................................................... 14,160 pounds
Height (with three G-11B parachutes) ...................................... 96 inches
Width .................................................................................... 108 inches
Length .................................................................................. 196 inches
Overhang: Front (vehicle) ...................................................... 4 inches
  Rear (extraction force transfer coupling) .................................. 18 inches
  Rear (extraction parachute jettison system) ......................... 30 inches
Center of Balance (CB) (from front edge of platform) ............ 98 inches

Figure 3-74. M1151A1B1 Armament Carrier with Long Range Advanced Scout Surveillance System and New Doors Rigged for Low-Velocity Airdrop
### Table 3-4. Equipment Required for Rigging the M1151A1B1 Long Range Advanced Scout Surveillance System and New Doors for Low-Velocity Airdrop

<table>
<thead>
<tr>
<th>National Stock Number</th>
<th>Item</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>8040-00-273-8713</td>
<td>Adhesive paste, 1-gallon</td>
<td>As required</td>
</tr>
<tr>
<td>4030-00-900-5354</td>
<td>Clevis, suspension, 1-inch (large)</td>
<td>5</td>
</tr>
<tr>
<td>4030-00-678-8562</td>
<td>Clevis, suspension, 3/4-inch (medium)</td>
<td>4</td>
</tr>
<tr>
<td>4020-00-240-2146</td>
<td>Cord, nylon, type III, 550-pound</td>
<td>As required</td>
</tr>
<tr>
<td>1670-00-434-5785</td>
<td>Coupling, airdrop extraction force transfer, w/16-ft. cable</td>
<td>1</td>
</tr>
<tr>
<td>8135-00-664-6958</td>
<td>Cushioning material (Cellulose wadding)</td>
<td>As required</td>
</tr>
<tr>
<td>8305-00-958-3685</td>
<td>Felt, 1/2-inch thick</td>
<td>As required</td>
</tr>
<tr>
<td>1670-01-183-2678</td>
<td>Leaf, extraction line (line bag) ( add 2 for C-17)</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Line extraction:</td>
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<tr>
<td>1670-01-062-6313</td>
<td>60-foot (3-loop), type XXVI (for C-130)</td>
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</tr>
<tr>
<td>1670-01-107-7651</td>
<td>140-foot (3-loop), type XXVI (for C-17)</td>
<td>1</td>
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<td>1670-01-064-4452</td>
<td>60-foot (1-loop), type XXVI (for C-17), (drogue line)</td>
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<td>1670-00-783-5988</td>
<td>Link assembly, type IV (C-17 only)</td>
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<td>1670-01-493-6418</td>
<td>Link assembly, two-point, 3 ¾-inch, small:</td>
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<tr>
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<td>Lumber:</td>
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<tr>
<td>5510-00-220-6146</td>
<td>2- by 4- by 96-inch</td>
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<tr>
<td>5510-00-220-6148</td>
<td>2- by 6- by 192-inch</td>
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<td>5315-00-753-3885</td>
<td>Nail, steel, common, 16D</td>
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<tr>
<td>5315-00-010-4659</td>
<td>Nail, steel, common, 8D</td>
<td>As required</td>
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<tr>
<td>1670-00-753-3928</td>
<td>Pad, energy-dissipating (honeycomb)</td>
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<td>1670-01-016-7841</td>
<td>Parachute, cargo, G-11B</td>
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<td>Parachute, cargo, extraction:</td>
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<tr>
<td>1670-01-063-3716</td>
<td>22-foot</td>
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<td>1670-01-063-3715</td>
<td>15-foot (C-17 only)</td>
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<td>Platform, airdrop, type V, 16-foot:</td>
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<tr>
<td>1670-01-162-2372</td>
<td>Clevis assembly (type V)</td>
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<td>1670-01-162-2376</td>
<td>Extraction bracket assembly</td>
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<tr>
<td>1670-01-162-2381</td>
<td>Tandem link assembly (Multipurpose link)</td>
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<tr>
<td>5530-00-128-4981</td>
<td>Plywood, 3/4-inch</td>
<td>2 sheets</td>
</tr>
</tbody>
</table>
## Table 3-4. Equipment Required for Rigging the M1151A1B1, Long Range Advanced Scout Surveillance System and New Doors for Low-Velocity Airdrop (continued)

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<thead>
<tr>
<th>National Stock Number</th>
<th>Item</th>
<th>Quantity</th>
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<tr>
<td>1670-01-097-8816</td>
<td>Release, cargo parachute, M-1</td>
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<tr>
<td></td>
<td>Sling, cargo, airdrop:</td>
<td></td>
</tr>
<tr>
<td>1670-01-062-6304</td>
<td>9-foot (2-loop), type XXVI</td>
<td>2</td>
</tr>
<tr>
<td>1670-01-062-6303</td>
<td>12-foot (2-loop), type XXVI</td>
<td>2</td>
</tr>
<tr>
<td>1670-01-063-7761</td>
<td>16-foot (2-loop), type XXVI</td>
<td>4</td>
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<tr>
<td>5340-00-040-8219</td>
<td>Strap, parachute, release, multi-knife</td>
<td>2</td>
</tr>
<tr>
<td>7501-00-266-5016</td>
<td>Tape, adhesive, 2-inch</td>
<td>As required</td>
</tr>
<tr>
<td>1670-00-937-0271</td>
<td>Tiedown assembly, 15-foot</td>
<td>30</td>
</tr>
<tr>
<td>1670-01-483-8259</td>
<td>Towplate release mechanism (H-block) (C-17 only)</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Webbing:</td>
<td></td>
</tr>
<tr>
<td>8305-00-268-2411</td>
<td>Cotton, 1/4-inch, type I</td>
<td>As required</td>
</tr>
<tr>
<td>8305-00-082-5752</td>
<td>Nylon, tubular, 1/2-inch</td>
<td>As required</td>
</tr>
<tr>
<td>8305-00-559-6871</td>
<td>Nylon, type VIII</td>
<td>As required</td>
</tr>
</tbody>
</table>
SECTION V: RIGGING THE M1165A1 WITH B3 ARMOR KIT, TRUCK, UTILITY: ARMORED, COMMAND AND CONTROL / GENERAL PURPOSE VEHICLE WITH ACCOMPANYING LOAD FOR LOW-VELOCITY AIRDROP ON A 16-FOOT PLATFORM

DESCRIPTION OF LOAD

3-61. The M1165A1 is shown in Figure 3-75. The M1165A1 with the B3 armor kit truck is equipped with an integrated air conditioning system, two parallel condenser assemblies located above each of the rear wheel wells and new variable rate rear springs. The B3 armor kit is an IAP, including underbodies, rocket armor and lower windshield deflector armor. The M1165A1 with B3 armor kit has a payload of 2,230 pounds (including crew), is 75-inches high, 91-inches wide, and 194 inches long and a gross vehicle weight (GVW) of 12,100 pounds. The M1165A1 with the B3 armor kit is rigged with an accompanying load of 105-millimeter (mm) ammunition boxes weighing a maximum of 1,034 pounds on a 16-foot, type V platform.

Figure 3-75. M1165A1 Utility Truck with the B3 Armor Kit
PREPARING PLATFORM

3-62. Prepare a 16-foot, type V airdrop platform according to TM 10-1670-268-20&P/TO 13C7-52-22. Install tandem links and platform clevises according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5 and as shown in Figure 3-76.

Step:
1. Inspect, or assemble and inspect, a 16-foot, type V platform as outlined in TM 10-1670-268-20&P/TO 13C7-52-22.
2. Install a tandem link assembly to the front of each platform side rail using holes 1, 2, and 3.
3. Install a tandem link assembly on the rear of each platform side rail using holes 30, 31, and 32.
4. Install a clevis on bushing 1 of each front tandem link.
5. Install a clevis on bushing 4 of each rear tandem link.
6. Starting at the front of each platform side rail, install clevises on the bushings bolted to holes 5, 15, 17, 20, 21, and 25.
7. Starting at the front of the platform, number the clevises 1 through 8 on the right side, and 1A through 8A on the left side.
8. Label the tiedown rings according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5.

Figure 3-76. Platform Prepared

PREPARING AND POSITIONING HONEYCOMB STACKS

3-63. Build the honeycomb stacks as shown in Figures 3-77 through 3-79. Position the stacks on the platform as shown in Figure 3-80.
① Cut two 29- by 36-inch pieces of honeycomb to form a base.
② Cut a 9- by 36-inch piece of honeycomb to form a base.
③ Cut an 80- by 36-inch piece of honeycomb. Glue the 29- by 36-inch pieces flush with the outside edges of the 80- by 36-inch honeycomb and glue the 9- by 36-inch piece centered on the 80-by 36-inch honeycomb.
④ Cut three 9- by 36-inch pieces of honeycomb. Glue one piece centered on the 80- by 36-inch piece of honeycomb. Glue the second and third pieces to the 80- by 36-inch honeycomb 22 inches from the 36-inch edge of the 80- by 36-inch honeycomb.
⑤ Glue a 36- by 36-inch piece of honeycomb centered on top of the honeycomb in step 4.
⑥ Cut three 9- by 36-inch pieces of honeycomb. Glue one piece centered on the 36- by 36-inch piece of honeycomb. Glue the second and third pieces to the 36- by 36-inch honeycomb flush with the outside edges.
⑦ Glue a 36- by 36-inch piece of honeycomb centered on top of the honeycomb in step 6.
⑧ Glue five 36- by 9-inch pieces of honeycomb flush with the front edge of the 36- by 36-inch honeycomb.

Figure 3-77. Stack 1 Constructed
9 Cut a 36- by 9- by ¾-inch piece of plywood to form a base.

10 Cut two 2- by 4- by 36-inch pieces of lumber. Nail and glue the lumber flush along the 36-inch sides of the plywood.

11 Cut a 36- by 9- by ¾-inch piece of plywood. Nail and glue the plywood flush with the lumber in step 10. Glue the entire lumber stack flush with the honeycomb in step 8.

12 Nail two 30- by 24- by ¾-inch pieces of plywood flush together.

13 Cut six 2- by 4- by 30-inch pieces of lumber. Nail and glue two pieces of lumber flush together. Make three stacks. Center and nail one stack on the plywood in step 12. Nail the other two stacks flush with the 30-inch edges of the plywood in step 12.

14 Nail and glue a 30- by 24- by ¾-inch piece of plywood flush on top of the lumber in step 13. Center and glue the entire wood stack to the honeycomb base from steps 4 to 7.

15 Glue a 30- by 24-inch piece of honeycomb flush on top of the plywood in step 14.

16 Glue a 20- by 24-inch piece of honeycomb centered on top of the 30- by 24-inch honeycomb.

**Figure 3-77. Stack 1 Constructed (Continued)**
Note. All measurements are given in inches.

① Cut two 10- by 56-inch pieces of honeycomb.

② Cut and position a 20- by 16-inch piece of honeycomb between the 10- by 56-inch honeycomb 30 inches from the rear edge of the stack.

③ Glue two 40- by 28-inch pieces of honeycomb front to rear flush with the side edges on top of the honeycomb in steps 1 and 2.

Figure 3-78. Stack 2 Constructed
Note. All measurements are given in inches.

4 Cut six 10- by 56-inch pieces of honeycomb. Glue three pieces together flush with the 56-inch edges of the stack.

5 Cut and glue three 20- by 16-inch piece of honeycomb between the 10- by 56-inch honeycomb 30 inches from the rear edge of the stack.

6 Cut two pieces of 40- by 28-inch honeycomb. Glue and place front to rear and flush on top of the honeycomb in steps 4 and 5.

7 Cut six 8- by 56-inch pieces of honeycomb. Glue three pieces together and place flush with outside edge of the 56-inch pieces.

8 Cut and glue three 24- by 6-inch piece of honeycomb between the 8- by 56-inch honeycomb 35 inches from the rear edge of the stack.

9 Cut and glue a 2- by 6- by 24-inch piece of lumber on top of the honeycomb in step 8.

Figure 3-78. Stack 2 Constructed (Continued)
Glue two 80- by 24-inch pieces of honeycomb to form a base.

Center and glue five 35- by 24-inch pieces of honeycomb on top of the 80- by 24-inch piece of honeycomb.

Nail two 21- by 24- by 3/4-inch pieces of plywood to each other.

Nail three pieces of 2- by 4- by 21-inch lumber flush along each side and in the center of the plywood in step 3.

Nail a 2- by 4- by 24-inch piece of lumber flush along the right side.

Nail a 17- by 24- 3/4-inch piece of plywood flush with the left side.

Nail a 2- by 4- by 24-inch piece of lumber flush with the left edge of the plywood placed in step 6.

Nail a 3 1/2- by 24- by 3/4-inch piece of plywood flush over the lumber placed in step 7.

Center and glue a 13- by 5-inch piece of honeycomb along the rear edge of the plywood placed in steps 6 above.

Figure 3-79. Stack 3 Constructed
Notes. 1. All measurements are given in inches.
2. This drawing is not drawn to scale.

<table>
<thead>
<tr>
<th>Stack Number</th>
<th>Position on Platform</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Centered 9 inches from the front edge of the platform.</td>
</tr>
<tr>
<td>2</td>
<td>Centered 81 inches from the front edge of the platform.</td>
</tr>
<tr>
<td>3</td>
<td>Centered 153 inches from the front edge of the platform.</td>
</tr>
</tbody>
</table>

Figure 3-80. Honeycomb Stacks Positioned on Platform
PREPARING THE TRUCK

3-64. Prepare the interior of the truck as shown in Figure 3-81. Prepare the undercarriage as shown in Figure 3-82. Prepare the exterior of the truck as shown in Figure 3-83.

CAUTION
Package, label, and mark hazardous material according to AFMAN 24-204(I)/TM 38-250/NAVSUP PUB 505/MCO P4030.19H/DLAI 4145.3.

CAUTION
A full fuel tank does not allow for fuel expansion, and is a danger to aircraft and crew.

1. Ensure the fuel tank is no more than 3/4 full (not shown).

Note. Certain units may be authorized a waiver allowing 95% fuel. One way to verify the tank is 95% full is to fill the tank and withdraw 1 ¼ gallons with a hand pump.

2. Ensure the batteries and battery compartment comply with AFMAN 24-204(I)/TM 38-250/NAVSUP PUB 505/MCO P4030.19H/DLAI 4145.3 (not shown).

3. Remove and pad the side view mirrors with cellulose wadding. Place the nuts and bolts in the mounting holes and tighten in place. Cut two 4- by 15-inch pieces of honeycomb and position a piece behind each front seat. Position and secure the mirrors on top of the honeycomb pieces against the back of the seats and secure to the front seats with type III nylon cord.

4. Remove the breather cap and fording stack. Leave the cap attached to the stack. Pad the stack with cellulose wadding and tape. Secure to the left rear passenger seat with type III nylon cord. Secure the seat belt over the stack.

Figure 3-81. Truck Interior Prepared
⑤ Tie the engine start switch in the engine stop position with type I 1/4-inch cotton webbing.

⑥ Tie the steering wheel to the seat frame in two places with type III nylon cord. The retractable steering wheel locking cable may be used. If the locking cable is used, secure it to the steering wheel with type III nylon cord, not a padlock (not shown).

⑦ Tie the emergency brake handle in the off position with type III nylon cord.

⑧ Place the transmission and four-wheel drive levers in the neutral position. Secure to a convenient point with type III, nylon cord.

⑨ Tie the fire extinguisher in place with two lengths of type III nylon cord (not shown).

⑩ Tape all instrument panel gauges with masking tape (not shown).

⑪ Pad the front of the equipment generously with cellulose wadding taped in place.

Figure 3-81. Truck Interior Prepared (Continued)
⑫ Secure communications equipment in its mount with chains and padlocks. Tie the equipment to its mount with 1-inch tubular nylon webbing. Pad the radio handset with cellulose wadding and tie the handset to the mount with type III nylon cord (not shown).

⑬ Remove antennas, pad and tape the ends and secure the antennas to the roof’s interior above the interior cab doors with type III nylon cord.

⑭ Slide all windows to the closed position. Secure each window by routing a length of type III nylon cord around the window adjusting knob and through the top door hinge and secure with a slip knot.

**CAUTION**

Ensuring the doors are properly closed is critical for the integral strength of the doors during airdrop. If the door is not properly closed damage will occur.

⑮ Girth hitch a piece of type III nylon cord to the interior door latch and route through window frame and secure using a slip knot.

*Figure 3-81. Truck Interior Prepared (Continued)*
1. Tape the fuel tank drain plug (not shown).
2. Pad the inside lower control arms at the front and rear of the truck with cellulose wadding and tape.
3. Prepare a 12-by 12-inch piece of honeycomb and a 2-by 6-by 16-inch piece of lumber to be placed under the oil pan. Center and tape the honeycomb to the lumber piece. Position the honeycomb flush against the oil pan.

*Note.* When positioning the honeycomb and lumber ensure that the lumber is positioned width wise.

4. Route a 15-foot lashing around the right front frame cross member. Ensure that the plies of the lashing are routed around the stabilizer bar.
5. Route a second 15-foot lashing around the left front frame cross member. Ensure that the plies of the lashing are routed around the stabilizer bar.
6. Route the free end of the lashing placed in step 4 around the radius rod on the left side of the cross member in front of the fuel tank.
7. Route the free end of the lashing placed in step 5 around the radius rod on the right side of the cross member in front of the fuel tank.
8. Tighten and secure both lashings over the honeycomb and lumber placed under the oil pan. Separate the load binders so that they do not interfere with each other.

*Figure 3-82. Truck Underside Prepared*
1. Tape all lights and reflectors.
2. Place a 6- by 6-inch piece of felt over the air intake hole, and tape the felt in place using cloth-backed tape.
3. Prepare a piece of felt large enough to cover the front right roof corner, fording stack mounting brackets, and mirror mounting brackets. Position the felt over the corner and mounting brackets and secure with cloth-backed tape.
4. Repeat for the front left corner.
5. Cover each door window with felt and secure in place with type III nylon cord around the window and tape with cloth-backed tape.

Figure 3-83. Truck Exterior Prepared
⑥ Prepare a 15- by 35-inch piece of felt to cover the rear right roof corner and the end of the body support shell. Position the felt over the roof corner and support shell and secure with cloth-backed tape.

⑦ Repeat for the left rear corner.

⑧ Pad the antenna mounts with cellulose wadding and secure with masking tape.

⑨ Tie the fuel filler cap to the body of the truck with type III nylon cord and tape the fuel filler opening using cloth-backed tape.

⑩ Secure the tow-pintle with a length of type III nylon cord.

⑪ Pad and tape the rear side and tailgate cargo hooks.

Figure 3-83. Truck Exterior Prepared (Continued)
Notes. 1. All measurements are given in inches.
2. This drawing is not drawn to scale.

⑫ Place an 83-by-21-inch piece of honeycomb against the windshield. Tape the outside edges and secure with type III nylon cord through the window openings and around the honeycomb.

⑬ Place a 4-by-78-inch piece of honeycomb along the front edge of the hood.

⑭ Place and tie two 83-by-36-inch pieces of honeycomb with cutouts as shown above to the front of the hood with type III nylon cord. Tape the upper edges of the honeycomb. Route the cord through the grille and tie it on each side to the hood latches.

⑮ Place two 83-by-12-inch pieces of honeycomb behind the honeycomb placed in step 13 and flush against the windshield. Tape the upper outside edges, and tie the honeycomb to the hood latches with type III nylon cord. Tape the hood latches using cloth-backed tape.
Girth hitch a 15-foot lashing to each door exterior lifting shackle and route the running ends of a lashing over the top of vehicle and secure on top with a D-ring and load binder. Repeat for the rear windows.

Place two 36-by 83-inch sheets of honeycomb on the roof. Crush or cut out to allow for the turret fixture and load binders and D-rings. Tape the outer edges of the honeycomb. Secure the honeycomb to the roof with type III nylon cord to the lifting shackles on each door.

Figure 3-83. Truck Exterior Prepared (continued)
STOWING ACCOMPANYING LOAD

3-65. Stow the accompanying load as shown in Figure 3-84. Ensure the accompanying load complies with the TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5. The accompanying load shown consists of nine boxes of 105-mm ammunition.

CAUTION

Only ammunition listed in TM 4-48.16 (FM 4-20.153)/MCRP 4-11.3B/TO 13C7-18-41 may be airdropped.

Note: The accompanying load will have a maximum weight of 1,034 pounds.

1. Route a 15-foot lashing through cargo bed tie-downs C and B. Leave 30-inches from D-ring to cargo bed tiedown C.

2. Route a 15-foot lashing through cargo bed tie-downs E, and A. Leave 30-inches from D-ring to cargo bed tiedown E.

3. Route a 15-foot lashing through cargo bed tie-downs D and B. Leave 30-inches from D-ring to cargo bed tiedown D.

4. Route a 15-foot lashing through cargo bed tie-downs D and A. Leave 30-inches from D-ring to cargo bed tiedown D.

5. Cut a 36- by 48-inch piece of honeycomb. Position the piece flush against the front of the cab. Position a 15-foot lashing ten inches from the front and rear edge of the honeycomb.

Figure 3-84. Accompanying Load Stowed and Secured
Position and center up to nine boxes of 105-mm ammunition boxes (two rows of four), front to rear and one box on top, left to right, flush against the wall of the cab.

Secure the previously positioned lashings from step 5 using D-rings and load binders.

Secure the previously routed lashings from step 3 and 4 using D-rings and load binders.

Secure the previously routed lashings from step 1 and 2 using D-rings and load binders.

Pad under any load binder that has metal to metal contact.

Cut and position a 52- by 14-inch piece of honeycomb vertically behind the ammunition stack.

Close the tailgate. Girth hitch a doubled length of ½-inch tubular nylon webbing through either end of the tailgate hook brackets, through the cargo strap securing brackets, and secure to the opposite tailgate hook brackets.

Figure 3-84. Accompanying Load Stowed and Secured (Continued)
PREPARING AND INSTALLING BODY SIDE PROTECTION BOARDS

3-66. Prepare and install the body side protective boards as shown in Figure 1-11.

Notes. 1. All measurements are given in inches.
2. This drawing is not drawn to scale.

1. Pass a 15-foot lashing around the upper control arm behind a front wheel and through its own D-ring. Repeat for the other side of the truck (not shown).

2. Pass a 15-foot lashing around the upper control arm behind a rear wheel and through its own D-ring (not shown). Repeat for the other side of the truck (not shown).

3. Glue and tape two 12- by 12-inch pieces of honeycomb in four places to a 2- by 6- by 150-inch piece of lumber spaced as shown above. Repeat for the second body side protection board.

4. Position each body side protection board against the side of the cab. Ensure that all honeycomb pieces are flush against the front and rear fenders of the vehicle.

Note. When routing the lashings around the body side protection boards alternate the direction from top to bottom and bottom to top. This will keep the boards flush and prevent twisting.

5. Bring the lashings positioned in steps 1 and 2 around the boards two turns. Secure the lashings from the left and right sides of the truck together on top of the truck with D-rings and load binders.

Figure 3-85. Body Side Protection Boards Prepared and Installed
LIFTING AND POSITIONING THE VEHICLE

3-67. Lift the vehicle using the slings and position it on the honeycomb stacks as shown in Figure 3-86.

Note. Optional drive-off aids may be installed on the platform according to the procedures in FM 4-20.117/TO 13C7-1-111. (not shown)

1 Center a 15-foot length of ½-inch tubular nylon webbing on top of stack number 1. Route the free ends left to right and right to left down through the opening in the wood stack.

2 Route a 12-foot, (2-loop), type XXVI nylon webbing sling through each tailgate sling guide and attach them to each rear lifting shackle with a large clevis.

3 Attach a 9-foot, (2-loop), type XXVI nylon webbing sling to each front lifting point with a large clevis.

Figure 3-86. M1165A1 Positioned
Lift and position the truck centered on stack 1. The truck will be 4-inches from the front edge of the platform. (not shown)

Figure 3-86. M1165A1 Positioned (Continued)
5. Ensure the frame cross member rests securely on the 2- by 6- by 24-inch lumber piece of honeycomb stack 2.

6. Ensure the truck’s front suspension cross member sets securely on stack 3.

7. Ensure the rear vehicle suspension cross member sets securely on stack 1. The rear bumper support brackets should be over the edges and slightly above stack 1.

8. Remove the lifting slings. (not shown)

9. Secure the pre-routed ½-inch tubular nylon of honeycomb stack number 1 to the rear bumper support brackets on the left and right sides.

Figure 3-86. M1165A1 Positioned (Continued)
LASHING THE M1165A1

3-68. Lash the M1165A1 utility truck to the platform according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5 and as shown in Figures 3-87 and 3-88.

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<th>Instructions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>Pass lashing: Through tie-down bracket behind the left rear coil spring.</td>
</tr>
<tr>
<td>2</td>
<td>1A</td>
<td>Through tie-down bracket behind the right rear coil spring</td>
</tr>
<tr>
<td>3</td>
<td>2</td>
<td>Through left rear lifting shackle.</td>
</tr>
<tr>
<td>4</td>
<td>2A</td>
<td>Through right rear lifting shackle.</td>
</tr>
<tr>
<td>5</td>
<td>3</td>
<td>Around left rear lower control arm.</td>
</tr>
<tr>
<td>6</td>
<td>3A</td>
<td>Around right rear lower control arm.</td>
</tr>
<tr>
<td>7</td>
<td>4</td>
<td>Around the control arm, and through the tie-down bracket in front of the left rear coil spring. Ensure the lashing splits the exhaust.</td>
</tr>
<tr>
<td>8</td>
<td>4A</td>
<td>Around the control arm, and through the tie-down bracket in front of the right rear coil spring.</td>
</tr>
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</table>

Figure 3-87. Lashings 1 through 8 Installed
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<th>Tiedown Clevis Number</th>
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<tbody>
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<td>5</td>
<td>Pass lashing: Through the tiedown bracket behind the left front coil spring.</td>
</tr>
<tr>
<td>10</td>
<td>5A</td>
<td>Through the tiedown bracket behind the right front coil spring.</td>
</tr>
<tr>
<td>11</td>
<td>6</td>
<td>Around the front left lower control arm.</td>
</tr>
<tr>
<td>12</td>
<td>6A</td>
<td>Around the front right lower control arm.</td>
</tr>
<tr>
<td>13</td>
<td>8</td>
<td>Through the tie-down bracket on the end of the left frame rail.</td>
</tr>
<tr>
<td>14</td>
<td>8A</td>
<td>Through the tie-down bracket on the end of the right frame rail.</td>
</tr>
</tbody>
</table>

Figure 3-88. Lashings 9 through 14 Installed
INSTALLING AND SAFETY TIEING THE SUSPENSION SLINGS

3-69. Install and safety tie the suspension slings as shown in Figure 3-89.

1. Attach a 16-foot (2-loop), type XXVI nylon webbing sling to each tandem link assembly with a large clevis.

2. Raise the slings and install a deadman’s tie on the suspension slings as shown in TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5.

3. Pad each suspension sling with a 6- by 60-inch length of felt starting from 36 inches above the large clevis and secure with cloth-backed tape extending the tape six inches above and below the padding.

4. Safety tie each sling to the body side protection boards with a length of type III nylon cord.

Figure 3-89. Suspension Slings Installed
STOWING CARGO PARACHUTES

3-70. Stow the parachutes as shown in Figure 3-90.

1. Prepare, position, and stow three G-11B cargo parachutes according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5.

2. Install the front cargo parachute restraint strap according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5. Use tiedown clevises 7 and 7A.

3. Install the rear cargo parachute restraint strap according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5 using platform bushings 27 and 27A.

4. Install a multi-knife parachute release strap on the restraint straps on each side according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5.

Figure 3-90. Parachutes Stowed
INSTALLING THE M-1 CARGO PARACHUTE RELEASE SYSTEM

3-71. Install the M-1 cargo parachute release assembly as shown in Figure 3-91.

1. Prepare and install the release assembly on top of the honeycomb over the turret according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5.

2. Attach the suspension slings and riser extensions according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5. Fold the excess and secure with ¼-inch cotton webbing.

3. Restrain the release to convenient points on the load using type III nylon cord.

4. Secure the arming wire lanyard to the parachute carrying handle, S-fold and tape the excess with a single wrap of masking tape.

Figure 3-91. M-1 Cargo Parachute Release Assembly Installed
INSTALLING THE EXTRACTION SYSTEM

3-72. Install the EFTC extraction system according to TM 4-48.02 (FM 4-20.102) /MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5 and as shown in Figure 3-92. Install the Extraction Parachute Jettison System (EPJS light according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5 if applicable.

1 Install the components of the extraction force transfer coupling (EFTC) according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5. Use the forward mounting holes for the EFTC actuator mounting brackets.

2 Install an actuator, with a 16-foot cable to the EFTC mounting brackets; route and safety tie the cable according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5.

3 Install the extraction parachute jettison system Light according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5 if applicable. (not shown)

Figure 3-92. Extraction System Installed
① Install the latch assembly on the extraction parachute jettison system light or the platform extraction bracket and connect the cable according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5.

② Attach a 9-foot (2-loop), type XXVI nylon sling to be used as a deployment line according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5. Fold the excess deployment line, and secure the folds in place according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5.

③ Safety tie the cable to tiedown ring D8 with type I, ¼-inch cotton webbing.

**Figure 3-92. Extraction System Installed (Continued)**
INSTALLING PROVISIONS FOR EMERGENCY RESTRAINTS

3-73. Install the provisions for emergency restraints on the load according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5.

PLACING EXTRACTION PARACHUTE

3-74. Select the extraction parachute and extraction line needed using the extraction line requirements table in TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5. Rig the extraction line in an extraction line bag according to TM 10-1670-286-20/TO 13C5-2-41. Place the extraction parachute and extraction line on the load for installation in the aircraft.

MARKING RIGGED LOAD

3-75. Mark the rigged load according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5 and as shown in Figure 3-93. Complete Shipper's Declaration for Dangerous Goods. If the load varies from the one shown, the weight, height, CB, and parachute requirements must be recomputed.

EQUIPMENT REQUIRED

3-76. Use the equipment listed in Table 3-5 to rig this load.
CAUTION

Make the final rigger inspection required by AR 59-4 and TM 4-48.02 (FM 4-20.102) /MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5 before the load leaves the rigging site.

RIGGED LOAD DATA

Weight ........................................................................................................... 13,860 pounds
Maximum Weight ......................................................................................... 13,860 pounds
Height ........................................................................................................... 93 inches
Width .......................................................................................................... 108 inches
Length ......................................................................................................... 214 inches
Length with extraction parachute jettison system Light ........... 226 inches
Overhang: Front (vehicle) ................................................................. 9 inches
Rear (extraction force transfer coupling) ....................... 18 inches
Center of Balance (CB) (from front edge of platform) .......... 98 inches

Figure 3-93. M1165A1 with B3 Armor Kit Rigged for Low-Velocity Airdrop
Table 3-5. Equipment Required for Rigging the M1151A1 with B3 Armor Kit for Low-Velocity Airdrop

<table>
<thead>
<tr>
<th>National Stock Number</th>
<th>Item</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>8040-00-273-8713</td>
<td>Adhesive paste, 1-gallon</td>
<td>As required</td>
</tr>
<tr>
<td>4030-00-090-5354</td>
<td>Clevis, suspension, 1-inch (large)</td>
<td>5</td>
</tr>
<tr>
<td>4030-00-678-8562</td>
<td>Clevis, suspension, 3/4-inch (medium)</td>
<td>4</td>
</tr>
<tr>
<td>4020-00-240-2146</td>
<td>Cord, nylon, type III, 550-lb</td>
<td>As required</td>
</tr>
<tr>
<td>1670-00-434-5785</td>
<td>Coupling, airdrop extraction force transfer, w/16-ft. cable</td>
<td>1</td>
</tr>
<tr>
<td>8135-00-664-6958</td>
<td>Cushioning material (Cellulose wadding)</td>
<td>As required</td>
</tr>
<tr>
<td>1670-01-475-1990</td>
<td>Extraction Parachute Jettison System Light</td>
<td>1</td>
</tr>
<tr>
<td>8305-00-958-3685</td>
<td>Felt,</td>
<td>As required</td>
</tr>
<tr>
<td>1670-01-183-2678</td>
<td>Leaf, extraction line (line bag) (C-130)</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Leaf, extraction line (line bag) C-17/C130J</td>
<td>4</td>
</tr>
<tr>
<td>Line extraction:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1670-01-062-6313</td>
<td>60-foot (3-loop), type XXVI (for C-130/J)</td>
<td>1</td>
</tr>
<tr>
<td>1670-01-107-7651</td>
<td>140-foot (3-loop), type XXVI (for C-17/C-130J)</td>
<td>1</td>
</tr>
<tr>
<td>1670-01-064-4452</td>
<td>60-foot (1-loop), type XXVI (for C-17/C-130J), (drogue line)</td>
<td>1</td>
</tr>
<tr>
<td>1670-01-493-6418</td>
<td>Link assembly, two-point, 3 ¾-inch, small:</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Lumber:</td>
<td></td>
</tr>
<tr>
<td>5510-00-220-6146</td>
<td>2- by 4- by 96-inch</td>
<td>6</td>
</tr>
<tr>
<td>5510-00-220-6148</td>
<td>2- by 6- by 96-inch</td>
<td>2</td>
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<tr>
<td>5315-00-753-3885</td>
<td>Nail, steel, common, 16D</td>
<td>As required</td>
</tr>
<tr>
<td>5315-00-010-4659</td>
<td>Nail, steel, common, 8D</td>
<td>As required</td>
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<tr>
<td>1670-00-753-3928</td>
<td>Pad, energy-dissipating (honeycomb)</td>
<td>16 sheets</td>
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<tr>
<td>1670-01-016-7841</td>
<td>Parachute, cargo, G-11B</td>
<td>3</td>
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<tr>
<td></td>
<td>Parachute, cargo, extraction:</td>
<td></td>
</tr>
<tr>
<td>1670-01-063-3716</td>
<td>22-foot</td>
<td>1</td>
</tr>
<tr>
<td>1670-01-063-3715</td>
<td>15-foot (C-17/C130J) (DES)</td>
<td>1</td>
</tr>
<tr>
<td>Platform, airdrop, type V, 16-foot:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1670-01-162-2372</td>
<td>Clevis assembly (type V)</td>
<td>16</td>
</tr>
<tr>
<td>1670-01-162-2376</td>
<td>Extraction bracket assembly</td>
<td>1</td>
</tr>
<tr>
<td>1670-01-162-2381</td>
<td>Tandem link assembly (Multipurpose link)</td>
<td>4</td>
</tr>
<tr>
<td>5530-00-128-4981</td>
<td>Plywood, 3/4-inch</td>
<td>2 sheets</td>
</tr>
</tbody>
</table>
Table 3-5. Equipment Required for Rigging the M1165A1 with B3 Armor Kit for Low-Velocity Airdrop (Continued)

<table>
<thead>
<tr>
<th>National Stock Number</th>
<th>Item</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1670-01-097-8816</td>
<td>Release, cargo parachute, M-1</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Sling, cargo, airdrop:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>For Deployment</td>
<td></td>
</tr>
<tr>
<td>1670-01-062-6304</td>
<td>9-foot (2-loop), type XXVI</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>For Lifting</td>
<td></td>
</tr>
<tr>
<td>1670-01-062-6304</td>
<td>9-foot (2-loop), type XXVI</td>
<td>2</td>
</tr>
<tr>
<td>1670-01-062-6303</td>
<td>12-foot (2-loop), type XXVI</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>For Suspension</td>
<td></td>
</tr>
<tr>
<td>1670-01-063-7761</td>
<td>16-foot (2-loop), type XXVI</td>
<td>4</td>
</tr>
<tr>
<td>5340-00-040-8219</td>
<td>Strap, parachute, release, multi-knife</td>
<td>2</td>
</tr>
<tr>
<td>7501-00-266-5016</td>
<td>Tape, adhesive, 2-inch</td>
<td>As required</td>
</tr>
<tr>
<td>1670-00-937-027a</td>
<td>Tiedown assembly, 15-foot</td>
<td>32</td>
</tr>
<tr>
<td></td>
<td>D-rings, heavy duty, 10,000-lb</td>
<td>28</td>
</tr>
<tr>
<td></td>
<td>Binder, load, 10,000-lb</td>
<td>28</td>
</tr>
<tr>
<td>1670-01-483-8259</td>
<td>Towplate release mechanism (H-block) (C-17)</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Towplate release mechanism (H-block) (C-130J)</td>
<td>1</td>
</tr>
<tr>
<td>Webbing:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8305-00-268-2411</td>
<td>Cotton, 1/4-inch, type I</td>
<td>As required</td>
</tr>
<tr>
<td>8305-00-082-5752</td>
<td>Nylon, tubular, 1/2-inch</td>
<td>As required</td>
</tr>
<tr>
<td>8305-00-559-6871</td>
<td>Nylon, type VIII</td>
<td>As required</td>
</tr>
</tbody>
</table>

Legend

lb = pound
DESCRIPTION OF LOAD

3-77. The M1167 is shown in Figure 3-94. The M1167 has a 4-man capability and is equipped with a tube launched, optically-tracked, wire command data link; guided missile (TOW) improved target acquisition system (ITAS) and an IAP, which includes underbody and rocker armor, lower windscreen deflective armor and a TOW gunner's protection kit (TGPK). The M1167 has a gross vehicle weight (GVWR) of 13,100 pounds. The M1167 is rigged with an accompanying load of operational equipment including the TGPK and ammunition weighing 3,140 pounds. The load is rigged on a 20 foot platform using four G-11B cargo parachutes and a total rigged weight of 16,920 pounds.

Figure 3-94. M1167 HMMWV with TOW, Improved Target Acquisition System, TGPK and IAP
PREPARING PLATFORM

3-78. Prepare a 20-foot, type V airdrop platform according to TM 10-1670-268-20&P/TO 13C7-52-22. Install tandem links, suspension link assemblies, and platform clevises according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/ NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5 and as shown in Figure 3-95.

Step:

1. Inspect, or assemble and inspect, a 20-foot, type V platform as outlined in TM 10-1670-268-20&P/TO 13C7-52-22.

2. Install a tandem link assembly on the front of each platform side rails using holes 1, 2, and 3.

3. Install a suspension link assembly on each platform side rails using holes 25, 26, and 27.

4. Install a tandem link assembly on the rear of each platform side rails using holes 38, 39, and 40.

5. Install a clevis on bushing 1 and 3 of each front tandem link.

6. Install a clevis on bushing 2, 3, and 4(triple) of each rear tandem link.

7. Starting at the front of each platform side rail, install clevises on the bushings bolted to holes 14, 15, 19, 20, 32, 33, 34, (triple) 35, 36, (triple) and 37.

8. Starting at the front of the platform, number the clevises 1 through 18 on the right side, and 1A through 18A on the left side.

9. Label the tiedown rings according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/ NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5.

Figure 3-95. Platform Prepared
PREPARING AND POSITIONING HONEYCOMB STACKS

3-79. Build the honeycomb stacks as shown in Figures 3-96 through 3-98. Position the stacks on the platform as shown in Figure 3-99.

*Note:* All measurements are given in inches.

1. Cut two 29- by 36-inch pieces of honeycomb and one 9- by 36-inch piece of honeycomb. Center the 9-inch piece and place the 29-inch pieces 6½ inches away to the left and right side of the 9-inch piece.

2. Cut an 80- by 36-inch piece of honeycomb. Glue the 29- by 36-inch pieces flush with the outside edges of the 80- by 36-inch honeycomb and glue the 9- by 36-inch piece centered on the 80-by 36-inch piece of honeycomb.

3. Cut three 9- by 36-inch pieces of honeycomb. Glue one piece centered on the 80- by 36-inch piece of honeycomb. Glue the second and third pieces to the 80- by 36-inch honeycomb, 22 inches from the 36-inch edge of the 80- by 36-inch honeycomb.

4. Glue a 36- by 36-inch piece of honeycomb flush on top of the honeycomb in step 3.

5. Cut three 9- by 36-inch pieces of honeycomb. Glue one piece centered on the 36- by 36-inch piece of honeycomb. Glue the second and third pieces to the 36- by 36-inch honeycomb flush with the outside edges.

6. Glue a 36- by 36-inch piece of honeycomb centered on top of the honeycomb in step 5.

7. Glue five 36- by 9-inch pieces of honeycomb flush with the front edge of the 36- by 36-inch honeycomb.

*Figure 3-96. Stack 1 Constructed*
⑧ Cut a 36- by 9- by ¾-inch piece of plywood to form a base. Cut two 2- by 4- by 36-inch pieces of lumber. Nail the lumber flush along the 36-inch sides of the plywood. Cut a 36- by 9- by ¾-inch piece of plywood. Nail the plywood flush on top of the 2- by 4’s. Glue the entire lumber stack flush with the honeycomb in step 7.

⑨ Nail two 30- by 24- by ¾-inch piece of plywood flush together. Cut six 2- by 4- by 30-inch pieces of lumber. Nail two pieces flush together, repeat two more times to make three stacks total. Center and nail one stack on the plywood. Nail the other two stacks flush with the 30-inch edges of the plywood. Nail a 30- by 24- by ¾-inch piece of plywood flush on top of the lumber.

⑩ Center and glue the entire wood stack to the honeycomb base flush with the rear of the stack. Leave three inches between the rear wood stack and the front honeycomb stack.

⑪ Glue a 30- by 24-inch piece of honeycomb flush on top of the plywood in step 9.

⑫ Glue a 20- by 24-inch piece of honeycomb centered on top of the 30- by 24-inch honeycomb.

Figure 3-96. Stack 1 Constructed (continued)
Note. All measurements are given in inches.

1. Cut two 10- by 56-inch pieces of honeycomb.
2. Cut and position a 20- by 16-inch piece of honeycomb between the 10- by 56-inch, pieces of honeycomb, 30 inches from the rear edge of the stack.
3. Glue two 40- by 28-inch pieces of honeycomb, flush with the front and rear side edges on top of the honeycomb in steps 1 and 2.

Figure 3-97. Stack 2 Constructed
Note. All measurements are given in inches.

4. Cut six 10- by 56-inch pieces of honeycomb. Glue three pieces together flush with the 56-inch edges of the stack on each side.

5. Cut and glue three 20- by 16-inch pieces of honeycomb between the 10- by 56-inch pieces of honeycomb, 30 inches from the rear edge of the stack.

6. Glue two 40- by 28-inch pieces of honeycomb, flush with the front and rear side edges on top of the honeycomb in steps 4 and 5.

7. Cut six 8- by 56-inch pieces of honeycomb. Glue three pieces together and place flush with outside edge of the 56-inch pieces on each side.

8. Cut and glue three 24- by 6-inch pieces of honeycomb between the 8- by 56-inch pieces of honeycomb, 35 inches from the rear edge of the stack.

9. Cut and glue a 2- by 6- by 24-inch piece of lumber on top of the honeycomb in step 8.

Figure 3-97. Stack 2 Constructed (continued)
Glue two 80-by-24-inch pieces of honeycomb to form a base.

Center and glue five 35-by-24-inch pieces of honeycomb on top of the 80-by-24-inch pieces of honeycomb.

Nail two 21-by-24-by-¾-inch pieces of plywood to each other.

Nail three pieces of 2-by-4-by-21-inch lumber flush along each side and in the center of the plywood in step 3.

Nail a 2-by-4-by-24-inch piece of lumber flush along the right side.

Nail a 17-by-24-by-¾-inch piece of plywood flush with the left side.

Nail a 2-by-4-by-24-inch piece of lumber flush with the left edge of the plywood placed in step 6.

Nail a 3½-by-24-by-¾-inch piece of plywood flush over the lumber placed in step 7.

Center and glue a 13-by-5-inch piece of honeycomb along the rear edge of the plywood placed in step 6 above.

Figure 3-98. Stack 3 Constructed
Notes. 1. All measurements are given in inches.
   2. This drawing is not drawn to scale.

<table>
<thead>
<tr>
<th>Stack Number</th>
<th>Position on Platform</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Centered 1½ inches from the front edge of the platform.</td>
</tr>
<tr>
<td>2</td>
<td>Centered 70 inches from the front edge of the platform.</td>
</tr>
<tr>
<td>3</td>
<td>Centered 146 inches from the front edge of the platform.</td>
</tr>
</tbody>
</table>

Figure 3-99. Honeycomb Stacks Positioned on Platform
PREPARING THE TOP OF THE TRUCK

3-80. Remove the TGPK as shown in Figure 3-100 and reattach the weapons mounting bracket shown in Figure 3-101.

1. Remove TGPK.
2. TGPK will be rigged as an accompanying load later in the manual.

*Note.* Step 1 can only be performed by qualified operators or maintenance personnel according to the specific removal instructions.
Reattach the weapon mounting bracket to turret.

Figure 3-101. Weapon Mounting Bracket Reattached
PREPARING THE TRUCK

3-81. Prepare the truck as shown as shown in Figure 3-102 through Figure 3-117.

**CAUTION**

Package, label, and mark hazardous material according to AFMAN 24-204(I)/TM 38-250/NAVSUP PUB 505/MCO P4030.19I/DLAI 4145.3.

**CAUTION**

A full fuel tank does not allow for fuel expansion, and is a danger to aircraft and crew.

1. Ensure the fuel tank is no more than ¾ full (not shown).
2. Ensure the batteries and battery compartment comply with AFMAN 24-204(I)/TM 38-250/NAVSUP PUB 505/MCO P4030.19I/DLAI 4145.3 (not shown).
3. Remove and pad the side view mirrors with cellulose wadding. Place the nuts and bolts in the mounting holes and tighten in place (not shown). Cut two 4- by 15-inch pieces of honeycomb and position a piece behind each front seat. Position and secure the mirrors on top of the honeycomb pieces against the back of the seats and secure to the front seats with type III nylon cord.
4. Remove the breather cap and fording stack. Leave the cap attached to the stack. Pad the stack with cellulose wadding and tape. Secure to the left rear passenger seat with type III nylon cord. Secure the seat belt over the stack. Cover the air intake hole with felt and tape.

Figure 3-102. Truck Interior Prepared
① Tie the engine start switch in the engine stop position with type I, 1/4-inch cotton webbing.

② Tie the steering wheel to the seat frame in two places with type III nylon cord. The retractable steering wheel locking cable may be used (not shown). If the locking cable is used, secure it to the steering wheel with type III nylon cord, not a padlock (not shown).

③ Tie the emergency brake handle in the off position with type III nylon cord.

④ Place the transmission and four-wheel drive levers in the neutral position. Secure to a convenient point with type III, nylon cord.

⑤ Tie the fire extinguisher in place with two lengths of type III nylon cord (not shown).

⑥ Tape all instrument panel gauges with masking tape.

Figure 3-103. Steering Wheel Secured
① Remove blue force tracking (BFT) computer. Pad with felt and tape with 2-inch cloth backed tape and secure to front passenger seat with a piece of type III nylon cord.

② Secure BFT Mounting bracket to nearest convenient point with type III nylon cord.

③ Secure the rear interior cab doors with two lengths of type III, nylon cord. Route the first length through each release latch and secure the opposite end to a convenient point on the roof. Secure the second piece through lower portion of the door (not shown).

④ Secure communications equipment in its mount with chains and padlocks. Tie the equipment to its mount with 1-inch tubular nylon webbing. Pad the radio handset with cellulose wadding and tie the handset to the mount with type III nylon cord (not shown).

⑤ Pad the communications equipment and mount with cellulose wadding and tape in place.

⑥ Remove antennas, secure in several places with type III nylon cord, then pad and tape the ends and secure the antennas to the roofs interior above the interior cab doors with type III nylon cord.

Figure 3-104. Stow and Secure Communications Equipment and Doors
Notes. 1. All measurements are given in inches.
   2. This drawing is not drawn to scale.

Note. The turret should be turned so that the traverse mechanism is in line with the back of the driver’s seat.

① Build the turret housing support using 8d nails as shown above.

② Close the turret cover and secure it with the fasteners provided and to holes in the turret ring with type III nylon cord.

Figure 3-105. Turret Support Built, Installed and Secured
1. Place the turret support under the turret diagonally across its diameter in a right rear to left front direction. The 6-by 8-inch piece of plywood should be placed behind gear shifter levers. The base of the rear 2-by 4-by 30-inch lumber should be between fire control acquisition systems.

2. Tie the support to convenient points on the turret with 1/2-inch tubular nylon webbing at the roof and with type III, nylon cord at the base.

3. Tie the turret brake in the DOWN position with type III nylon cord.

4. Secure the turret turning handle to a turret securing latch with type III nylon cord.

**Figure 3-106. Turret Support Placed Secured**
Slide all windows to the “CLOSED” position. Secure each window with a piece of type III nylon to the top door hinge.

**CAUTION**
Ensuring the doors are properly closed is critical for the integral strength of the doors during airdrop. If the door is not properly closed damage will occur.

Secure all side interior door latches by girth hitching a length of type III nylon cord from the latch to a convenient point and tie off using a trucker’s hitch. Close the doors and ensure the doors are properly closed for integral strength. Ensure the latch does not move once secured.

Figure 3-107. Windows and Door Latch Secured
1. Place the fire control system (FCS) in its storage bag (not shown).

2. Place the FCS in its bag flush on the gunner stand and secure it in place with the straps provided.

3. Position the traversing unit (TU) in its mounting bracket and secure it with the clips provided. Safety tie the latches using type III nylon cord.

4. Secure the TU using two lengths of ½-inch tubular nylon webbing. Route the ½-inch tubular nylon webbing around the tip portion of the TU and the holes in the turret.

5. Position the target acquisition subsystem (TAS) in to its mounting bracket. Ensure the binocular subassembly fits into its protective housing. Secure the TAS using the two straps provided.

6. Route a length of ½-inch tubular nylon webbing under the TAS mounting bracket and around the TAS. Secure the two running ends with a surgeons knot and locking knot.

Figure 3-108. Fire Control System, Traversing Unit and Target Acquisition Subsystem Secured
① Pad the extinguisher and its components using cellulose wadding and masking tape.
② Pad the power box using cellulose wadding and masking tape.
③ Place two 15-foot lashings under the TOW missile rack approximately 20 inches apart (not shown).
④ Secure 5.56 ammunition cans in brackets and straps provided on the right side of the cargo compartment (not shown).
⑤ Place six TOW missiles in the rack. Secure them with the straps provided.
⑥ Route the pre-positioned lashings through the water cans handles over the missiles and secure with two Drings and load binders. Place pieces of felt where the load binders will be for added protection.

Figure 3-109. Cargo Compartment Equipment and TOW Missiles Secured
1. Cut three equal lengths of ½-inch tubular nylon for securing a weapon (not shown).

2. Girth hitches each length to both outer deck rings and on the center of the missile rack.

3. Cut two pieces of honeycomb big enough to encase a crew weapon (not shown).

4. Hollow out an area for the weapon on the bottom piece of honeycomb and place the weapon on the honeycomb. Place the second piece of honeycomb on top the weapon. (not shown)

5. Secure the honeycomb around the weapon with type III nylon cord. (not shown)

6. Place the weapon and honeycomb on top of the missile rack and secure with the previously placed ½-inch tubular nylon.

Figure 3-110. Crew Weapon Padded and Secured
① Tape the fuel tank drain plug (not shown).
② Pad the inside lower control arms at the front and rear of the truck with cellulose wadding and tape.
③ Prepare a 12- by 12-inch piece of honeycomb and a 2- by 6- by 16-inch piece of lumber to be placed under the oil pan. Center and tape the honeycomb to the lumber piece. Position the honeycomb flush against the oil pan.

**Note.** When positioning the honeycomb and lumber ensure that the lumber is positioned widthwise.
④ Route a 15-foot lashing around the right front frame cross member. Ensure that the plies of the lashing are routed around the stabilizer bar.
⑤ Route a second 15-foot lashing around the left front frame cross member. Ensure that the plies of the lashing are routed around the stabilizer bar.
⑥ Route the free end of the lashing placed in step 4 around the radius rod on the left side of the cross member in front of the fuel tank.
⑦ Route the free end of the lashing placed in step 5 around the radius rod on the right side of the cross member in front of the fuel tank.
⑧ Tighten and secure both lashings over the honeycomb and lumber placed under the oil pan. Separate the load binders so that they do not interfere with each other.

**Figure 3-111. Truck Underside Prepared**
① Tape all lights and reflectors (not shown).
② Cut four pieces of 27-by 31-inch felt and, cut notches in each corner (not shown). Place the felt over each door window and secure the felt around each window frame.
③ Place a piece of 15- by 30-inch felt over the front left roof corner and the mirror mounting brackets and tape with cloth backed tape.
④ Place a piece of 15- by 35-inch felt over the left rear roof corner and the end of the body support shell and tape with cloth backed tape.

Figure 3-112. Windows Prepared
① Place a piece of 15- by 30-inch felt over the front right roof corner, fording stack mounting brackets and the mirror mounting brackets and tape with cloth backed tape.

② Place a piece of 15- by 35-inch felt over the right rear roof corner and the end of the body support shell and tape with cloth backed tape.

③ Pad with felt and tape the antenna mount and scoop.

④ Secure the fuel filler cap to the truck with type III nylon cord and tape the opening.

**Figure 3-113. Exterior Prepared**
1 Secure the tow-pintle with a length of type III nylon cord (not shown).

2 Open the rear tailgate and lift up the hatch. Lay two 15-foot lashings about 24-inches apart across the tailgate, run the free ends down between the bottom of the tailgate and the vehicle body. Close the tailgate and route the running ends of the lashings up and over the tailgate. Close the hatch leaving the lashings exposed (not shown).

3 Place the TOW tripod on the tailgate and secure the tripod with the securing straps.

4 Secure the tripod with the prepositioned 15 foot lashings. Place pieces of felt where the lashings will run and secure the lashings with D-rings and load binders.

5 Girth hitch a doubled length of ½-inch tubular nylon webbing through either end of the tailgate hook brackets through the cargo strap securing brackets, up through the hatch opening handle, back down through the cargo strap securing brackets, and secure to the opposite tailgate hook brackets.

![Figure 3-114. Rear Hatch and Tailgate Prepared](image-url)
Notes. 1. All measurements are given in inches.
2. This drawing is not drawn to scale.

1. Place an 83- by 21-inch piece of honeycomb against the windshield. Tape the outside edges and secure with type III nylon cord through the window openings and around the honeycomb.

2. If the driver’s visual equipment bracket is there, cut a notch in the honeycomb for it, then pad it with felt and tape in place with cloth backed tape.

3. Place a 4- by 78-inch piece of honeycomb along the front edge of the hood.

4. Place and tie two 83- by 36-inch pieces of honeycomb with cutouts as shown above to the front of the hood with type III nylon cord. Tape the upper edges of the honeycomb. Route the cord through the grille and tie it on each side to the hood latches.

5. Place two 83- by 12-inch pieces of honeycomb behind the honeycomb placed in step 3 and flush against the windshield. Tape the upper outside edges, and tie the honeycomb to the hood latches with type III nylon cord. Tape the hood latches using cloth-backed tape.

Figure 3-115. Hood and Windshield Prepared
Route a 15-foot lashing around each shackle mounted on the outside of the front and rear on both sides and back through its own D-ring.

Secure the pre-positioned front door lashings on top of the vehicle roof with two D-rings and a load binder. Repeat for the rear door lashings.

Figure 3-116. Door Lashings Prepared and Secured
① Place two 36-by 83-inch pieces of honeycomb with cut outs for the turret fixtures on the roof.

② Place two more 36-by 83-inch pieces of honeycomb on top of the first layer. Tape the outer edges of the honeycomb.

③ Tie the honeycomb to the roof by routing four lengths of type III nylon cord and secure them to the sideboards after they are installed (not shown).

Figure 3-117. Roof Prepared
PREPARING AND INSTALLING BODY SIDE PROTECTION BOARDS

3-82. Prepare and install the body side protective boards as shown in Figure 3-118.

**Notes.** 1. All measurements are given in inches.
2. This drawing is not drawn to scale.

<table>
<thead>
<tr>
<th>12</th>
<th>12</th>
<th>12</th>
<th>36</th>
<th>12</th>
<th>30</th>
<th>12</th>
<th>12</th>
<th>12</th>
<th>150</th>
</tr>
</thead>
</table>

1. Pass a 15-foot lashing around the upper control arm behind a front wheel and through its own D-ring. Repeat for the other side of the truck.

2. Pass a 15-foot lashing around the upper control arm behind a rear wheel and through its own D-ring (not shown). Repeat for the other side of the truck (not shown).

3. Glue and tape six 12-by 12-inch pieces of honeycomb to a 2-by 6-by 150-inch piece of lumber spaced as shown above. Repeat for the second body side protection board.

4. Position each body side protection board against the side of the cab. Ensure that all honeycomb pieces are flush against the front and rear fenders of the vehicle.

**Note.** When routing the lashings around the body side protection boards alternate the direction from top to bottom and bottom to top. This will keep the boards flush and prevent twisting.

5. Bring the lashings positioned in steps 1 and 2 around the boards two turns. Secure the lashings from the left and right sides on top of the truck with D-rings and load binders. Pad the hatch with felt where the load binder is on the rear hatch.

6. Tie the four type III nylon cords on each side of the vehicle to the side boards to secure the honeycomb on the top of the vehicle.

**Figure 3-118. Body Side Protection Boards Prepared and Installed**
LIFTING AND POSITIONING THE VEHICLE

3-83. Lift the vehicle using the slings and position it on the honeycomb stacks as shown in Figure 3-119.

1. Install drive-off aids on the platform according to the procedures in TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5.

2. Route a 12-foot, (2-loop), type XXVI nylon webbing sling through to rear lifting shackle with a large clevis.

3. Attach a 9-foot, (2-loop), type XXVI nylon webbing sling to each front lifting point with a large clevis.

Figure 3-119. M1167 Positioned
④ Lift and position the truck so the rear tires are centered widthwise on stack 1. The rear bumper brackets should be behind the front highest portion of the stack. The truck will be 4-inches from the front edge of the platform.

⑤ Ensure the frame cross member rests securely on the 2- by 6- by 24-inch lumber of honeycomb stack 2 (not shown).

⑥ Make sure the suspension cross members set securely on stacks 1 and 3.

Figure 3-119. M1167 Positioned (continued)
LASHING THE M1167

3-84. Lash the M1167 to the platform according to FM4-20.102/MCRP 4-11.3J/ NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5 and as shown in Figures 3-120 and 3-121.

<table>
<thead>
<tr>
<th>Lashing Number</th>
<th>Tiedown Clevis Number</th>
<th>Instructions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>Pass lashing: Through tie-down bracket behind the left rear coil spring.</td>
</tr>
<tr>
<td>2</td>
<td>1A</td>
<td>Through tie-down bracket behind the right rear coil spring</td>
</tr>
<tr>
<td>3</td>
<td>2</td>
<td>Through left rear lifting shackle.</td>
</tr>
<tr>
<td>4</td>
<td>2A</td>
<td>Through right rear lifting shackle.</td>
</tr>
<tr>
<td>5</td>
<td>3</td>
<td>Around left rear lower control arm.</td>
</tr>
<tr>
<td>6</td>
<td>3A</td>
<td>Around right rear lower control arm.</td>
</tr>
<tr>
<td>7</td>
<td>4</td>
<td>Around the control arm, and through the tie-down bracket in front of the left rear coil spring. Ensure the lashing splits the exhaust.</td>
</tr>
<tr>
<td>8</td>
<td>4A</td>
<td>Around the control arm, and through the tie-down bracket in front of the right rear coil spring.</td>
</tr>
</tbody>
</table>

Figure 3-120. Lashings 1 through 8 Installed
<table>
<thead>
<tr>
<th>Lashing Number</th>
<th>Tiedown Clevis Number</th>
<th>Instructions</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>5</td>
<td>Pass lashing: Through the tiedown bracket behind the left front coil spring.</td>
</tr>
<tr>
<td>10</td>
<td>5A</td>
<td>Through the tiedown bracket behind the right front coil spring.</td>
</tr>
<tr>
<td>11</td>
<td>6</td>
<td>Around the front left lower control arm.</td>
</tr>
<tr>
<td>12</td>
<td>6A</td>
<td>Around the front right lower control arm.</td>
</tr>
<tr>
<td>13</td>
<td>7</td>
<td>Through the vehicle tie-down bracket on the front left frame rail</td>
</tr>
<tr>
<td>14</td>
<td>7A</td>
<td>Through the vehicle tie-down bracket on the front right frame rail.</td>
</tr>
</tbody>
</table>

Figure 3-121. Lashings 9 through 14 Installed
STOWING ACCOMPANYING LOAD

3-85. Stow the accompanying load as shown in Figure 3-122 through Figure 3-130. Ensure the accompanying load complies with the TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5. The accompanying load shown consists of TGPK and 6 TOW missiles.

CAUTION
Only ammunition listed in TM 4-48.16 (FM 4-20.153)/MCRP 4-11.3B/TO 13C7-18-41 may be airdropped.

Note: The accompanying load will have a maximum weight of 3,140 pounds.

① Route a 15-foot lashing through platform tiedown ring A10 and B9.
② Route a 15-foot lashing through platform tiedown rings D10 and A9.

Figure 3-122. Accompanying Load Lashings Placed
① Place four 48- by 36-inch pieces of honeycomb in two stacks with the 36 inch side flush with the rear and 5 inches from the right side of the platform. Make a cutout to expose the platform extraction bracket.

② Place the base of the TGPK on top of the honeycomb flush on the right side and rear of the honeycomb as shown above.

③ Cut and position a 36- by 60-inch piece of honeycomb and place it inside the TGPK with the rear right corner in the crease of the TGPK.

Figure 3-123. TGPK Honeycomb Placed
**Notes.** 1. All measurements are given in inches.
2. This drawing is not drawn to scale.

1. Cut two 23- by 60- by \( \frac{3}{4} \)-inch pieces of plywood for end boards. Cut three inch slots out of each side two inches from the top and bottom and 5 inches in the middle.

2. Cut two 33\( \frac{1}{2} \)- by 56 by \( \frac{3}{4} \)-inch pieces of plywood for the top and bottom.

3. Cut two 23- by 32 by \( \frac{3}{4} \)-inch pieces of plywood for the sides.

4. Cut four 2- by 4- by 23-inch pieces of wood for the corner supports.

5. Nail all the pieces together with 8d nails. Pad and tape cutouts for lashings.

6. Cut two 23- by 47-inch pieces of honeycomb for inside the front and back.

7. Cut two 23- by 29-inch pieces of honeycomb for inside both sides.

8. Cut two 32- by 54-inch pieces of honeycomb. Place one inside the bottom and the other one on top, after the equipment is in the box (not shown).

9. Pad with cellulose wadding and tape all sharp edges where lashings will run.

**Figure 3-124. TGPK Box Built**
1. Place the TGPK box on the 36- by 60-inch honeycomb.
2. Wrap all remaining TGPK equipment in cellulose wadding and place inside the box.
3. Fill in the gaps with cellulose wadding.
4. Nail the top on the box.

Figure 3-125. TGPK Box Placed and Closed
Secure the prepositioned lashings on top of the box with two D-rings and load binders.

*Note:* Pad with cellulose padding where the lashings contact the TGPK (not shown).

Figure 3-126. TGPK Box Restrained
② Girth hitch a 15 foot lashing on clevis 11 and route the lashing through the right rear middle cutout around the box through the top left rear cut out.  

*Note:* Pad with cellulose wadding where the lashings meet the TGPK. (not shown)  

③ Girth hitch a 15 foot lashing on side rail clevis 17 and route the lashing through the right front middle cutout around the box and through the top left front cut out.  

④ Secure both lashings with a D-ring and load binder on the left side of the box.

*Figure 3-126. TGPK Box Restrained (continued)*
⑤ Girth hitch a 15 foot lashing on clevis 11A and route the lashing through the left rear center cutout, around the box through the top right rear cutout.

⑥ Girth hitch a 15 foot lashing on clevis 17A and route the lashing through the left front middle cutout, around the box through the top right front cutout.

⑦ Secure both lashings with a D-ring and load binder on the right side of the box.

Figure 3-126. TGPK Box Restrained (continued)
8 Girth hitch a 15 foot lashing on clevis 8 and route the lashing through the right rear top cutout. Girth hitch a 15 foot lashing on clevis 8A and route the lashing through the left rear top cutout. (not shown)

9 Secure both lashings with a D-ring and load binder on the rear of the box.

10 Girth hitch a 15 foot lashing on clevis 16 and route the lashing through the right front top cutout. Girth hitch a 15 foot lashing on side rail clevis 16A and route the lashing through the left front top cutout. (not shown)

11 Secure both lashings with a D-ring and load binder on the front of the box (not shown).

Figure 3-126. TGPK Box Restrained (continued)
Notes. 1. All measurements are given in inches.
2. This drawing is not drawn to scale.

1. Cut two 12- by 61-inch pieces of ¾ inch plywood for end boards. Make 2 inch cutouts 2 inches down from the top on each side. Pad with cellulose wadding and tape cutouts (not shown).

2. Cut six 10½ - by 12-inch pieces of ¾-inch plywood for the sides.

3. Cut six 12- by 57½-inch pieces of ¾-inch plywood for top and bottom of the box.

4. Cut six 10½- by 56-inch pieces of ¾-inch plywood for the front and rear sides of the projectile boxes.

5. Nail the three boxes together except for the tops with 8d nails (not shown).

6. Place two missiles in each box or other equipment weighing 340 pounds total for all three boxes and nail top on (not shown).

Figure 3-127. Projectile Boxes Built
1 Cut a 36- by 60-inch piece of honeycomb and place it on top of the TGPK box. Crush the underside of the honeycomb for the two load binders on top of the box (not shown).

2 Cut nine 12- by 36-inch pieces of honeycomb. Glue together three stacks of three pieces. Place the three stacks on top of the honeycomb in step 1 centered in the middle and flush with the outsides.

3 Place two 15-foot lashings on the ground 36-inches apart. Center and place the three projectile boxes on top of the straps. Place the end boards in front and rear of the three boxes. Route the prepositioned lashings around the boxes and end boards and secure both lashings with a D-rings and load binders (not shown).

4 Lift the lashed boxes and place them on top of the three stacks of honeycomb.

**Figure 3-128. Projectile Boxes Placed**
① Girth hitch a 15 foot lashing on clevis 12, route the lashing through the TGPK box center right front cutout and through the projectile box front left cutout.

② Girth hitch a 15 foot lashing on clevis 14, route the lashing through the TGPK box right rear top cutout and through projectile left rear top cutout.

③ Secure both lashings with a D-ring and load binder on the left side of the load (not shown).

④ Girth hitch a 15 foot lashing on clevis 12A and route the lashing through the TGPK box center left front cutout and through the projectile box front right top cutout.

④ Girth hitch a 15 foot lashing on clevis 14A, route the lashing through the TGPK box left rear center cutout and through the projectile box right rear top cutout.

⑤ Secure both lashings with a D-ring and load binder on the right side of the load.

Figure 1-129. Projectile Boxes Restrained
6 Girth hitch a 15 foot lashing on clevis 10 and route the lashing through the projectile box right rear cutout.

7 Girth hitch a 15 foot lashing on clevis 10A and route the lashing through the projectile box left rear cutout.

8 Secure both lashings with a D-ring and load binder on the rear end of the load.

9 Girth hitch a 15 foot lashing on clevis 15 and route the lashing through the projectile box right front cutout.

10 Girth hitch a 15 foot lashing on clevis 15A and route the lashing through the projectile box left front cutout (not shown).

11 Secure both lashings with a D-ring and load binder on the front end of the load (not shown).

Figure 3-129. Projectile Boxes Restrained (continued)
① Route a 15 foot lashing through clevis 18 and around the left top edge of the TGPK base. Pad the edge with cellulose wadding. Secure the lashing to itself with a D-ring and load binder.

② Route a 15 foot lashing through clevis 18A and around the right top edge of the TGPK base. Pad the edge with cellulose wadding. Secure the lashing to itself with a D-ring and load binder.

Figure 3-130. TGPK Base Restrained
BUILDING AND INSTALLING CARGO PARACHUTE PLATFORM

3-86. Build and secure the cargo parachute platform as shown in Figure 3-131 and 3-132.

Notes. 1. All measurements are given in inches.
2. This drawing is not drawn to scale.

2. Cut two pieces of 2-by-6-by-48 inch pieces of lumber and nail to the sides of the plywood with 8d nails.
3. Cut two pieces of 2-by-6-by-55-inch lumber and nail flush between the 2-by-6-by-48-inch lumber.
4. Drill four 2-inch holes centered from side to side and 3½ inches in from the top and bottom and drill two 2-inch holes centered 24-inches from the top and bottom.

Figure 3-131. Parachute Platform Built
1. Cut a 55-by 36-inch piece of honeycomb and place it on top of the projectile boxes.
2. Center the parachute stowage platform on top of the honeycomb with the plywood facing up.
3. Route a 15-foot lashing through clevis 9, through the center hole of the platform, down through the front hole, and secure the lashing with a D-ring and load binder to itself. Repeat for the other side using clevis 9A. (not shown)
4. Route a 15-foot lashing through clevis 13, through the center hole of the platform, down through the rear hole, and secure the lashing with a D-ring and load binder to itself. Repeat for the other side using clevis 13A. (not shown)

Figure 3-132. Parachute Platform Installed and Secured
INSTALLING AND SAFETY TIEING THE SUSPENSION SLINGS

3-87. Install and safety tie the suspension slings as shown in Figure 3-133 through 3-134.

1. Put both ends of a 3-foot (4-loop), type XXVI nylon webbing sling on the bell of a large clevis. Bolt the clevis to the right rear tandem link.

2. Put the bell of a large clevis on the loop end of the three-foot sling in step 1.

3. Bolt a 11-foot (4-loop), type XXVI nylon webbing sling to the large clevis in step 2. Bolt the other end of to a 5½-inch two point link.

4. Bolt a 3-foot (4-loop), type XXVI nylon webbing sling to the other end of the 5½-inch two point link in step 3. Bolt the other end of the sling to a three-point link. Wrap the two point link with felt and tape.

5. Bolt a 3-foot (4-loop), type XXVI nylon webbing sling to the top end of the three-point link of step 4.

6. Repeat steps 1 through 5 for the left rear side of the load (not shown).

Figure 3-133. Suspension Slings Installed
7 Put both ends of a 3-foot (4-loop), type XXVI nylon webbing sling on the bell of a large clevis. Bolt the clevis to the right suspension link.

8 Put the bell of a large clevis on the loop end of the three-foot sling in step 7.

9 Bolt a 12-foot (4-loop), type XXVI nylon webbing sling to the large clevis in step 8. Bolt the other end to the third leg of the three point link in step 5.

10 Repeat steps 7 through 9 for the left side center suspension slings (not shown).

11 Bolt 9-foot (4-loop), type XXVI nylon webbing sling on the bell of a large clevis. Bolt the clevis to the front right tandem link. Bolt the other end to a 5½-inch two point link.

12 Bolt a 9-foot (4-loop), type XXVI nylon webbing sling to the 5½-inch two point link. Pad with felt and tape the two point link.

13 Repeat steps 11 and 12 for the left side front suspension sling.

Figure 3-133. Suspension Slings Installed (continued)
Secure the front suspension slings with type III nylon to the rear stabilizers.

Raise the slings and install a modified deadman’s tie on the suspension slings as shown in TM 4-48.02/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5.

Pad each suspension sling with a 6- by 60-inch length of felt starting from 10 inches below the body side protection boards and secure with cloth-backed tape extending the tape six inches above and below the padding.

Safety tie each sling to the body side protection boards with a length of type III nylon cord.

Figure 3-134. Suspension Slings Safety Tie Installed, Padded and Secured
STOWING CARGO PARACHUTES

3-88. Stow the parachutes as shown in Figure 3-135.

1. Prepare and stow four G-11B cargo parachutes according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5.

2. Install the front cargo parachute restraint strap according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5. Use clevises 12 and 12A.

3. Install the rear cargo parachute restraint strap according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5 using clevises 17 and 17A.

4. Install a multi-knife parachute release strap on the restraint straps on each side according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5.

Figure 3-135. Parachutes Stowed, Restrained and Release Strap Installed
INSTALLING THE RELEASE SYSTEM

3-89. Install the release assembly as shown in Figure 3-136.

1. Prepare and install the M2 cargo parachute release assembly on top of the honeycomb over the turret according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5.

2. Attach the suspension slings and riser extensions according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5. Fold the excess and secure with ¼-inch cotton webbing.

3. Restrain the release to convenient points on the load using type III nylon cord.

4. Secure the arming wire lanyard to the parachute carrying handle (not shown), S-fold and tape the excess with a single wrap of masking tape (not shown).

Figure 3-136. M-2 Cargo Parachute Release Assembly Installed
INSTALLING THE EXTRACTION SYSTEM

3-90. Install the EFTC extraction system according to TM 4-48.02/MCRP 4-11.3J/NAVSEA SS400-AB-MM0-010 REV 1/TO 13C7-1-5 and as shown in Figure 3-137.

① Install the components of the extraction force transfer coupling (EFTC) according to TM 4-48.02/MCRP 4-11.3J/NAVSEA SS400-AB-MM0-010 REV 1/TO 13C7-1-5. Use the front mounting holes for the EFTC actuator mounting brackets (not shown).

② Install an actuator, with a 20-foot cable to the EFTC mounting brackets; route and safety tie the cable according to TM 4-48.02/MCRP 4-11.3J/NAVSEA SS400-AB-MM0-010 REV 1/TO 13C7-1-5 (not shown).

③ Install the latch assembly on the extraction parachute jettison system or the platform extraction bracket and connect the cable according to TM 4-48.02/MCRP 4-11.3J/NAVSEA SS400-AB-MM0-010 REV 1/TO 13C7-1-5.

④ Attach a 9-foot (2-loop), type XXVI nylon webbing sling to be used as a deployment line according to TM 4-48.02/MCRP 4-11.3J/NAVSEA SS400-AB-MM0-010 REV 1/TO 13C7-1-5. Fold the excess deployment line, and secure the folds in place according to TM 4-48.02/MCRP 4-11.3J/NAVSEA SS400-AB-MM0-010 REV 1/TO 13C7-1-5.

⑤ Safety tie the cable to a tiedown ring with type I, ¼-inch cotton webbing (not shown).

Figure 3-137. Extraction System Installed
INSTALLING PROVISIONS FOR EMERGENCY RESTRAINTS

3-91. Install the provisions for emergency restraints on the load according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5.

PLACING EXTRACTION PARACHUTE

3-92. Select the extraction parachute and extraction line needed using the extraction line requirements table in TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5. Rig the extraction line in an extraction line bag according to TM 10-1670-286-20/TO 13C5-2-41. Place the extraction parachute and extraction line on the load for installation in the aircraft.

MARKING RIGGED LOAD

3-93. Mark the rigged load according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5 and as shown in Figure 1-138. Complete Shipper's Declaration for Dangerous Goods. If the load varies from the one shown, the weight, height, CB, and parachute requirements must be recomputed.

EQUIPMENT REQUIRED

3-94. Use the equipment listed in Table 3-6 on page 3-199 to rig this load.
CAUTION
Make the final rigger inspection required by AR 59-4 and TM 4-48.02 (FM 4-20.102)/ MCRP 4-11.3J/ NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5 before the load leaves the rigging site.

<table>
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<tr>
<th>RIGGED LOAD DATA</th>
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<tbody>
<tr>
<td>Weight.......................................................... 16,920 pounds</td>
</tr>
<tr>
<td>Height.......................................................... 97 inches</td>
</tr>
<tr>
<td>Width........................................................... 108 inches</td>
</tr>
<tr>
<td>Length.......................................................... 270 inches</td>
</tr>
<tr>
<td>Overhang: Front (vehicle)......... 12 inches</td>
</tr>
<tr>
<td>Rear (extraction force transfer coupling) ... 18 inches</td>
</tr>
<tr>
<td>Center of Balance (CB) (from front edge of platform) ....... 114 inches</td>
</tr>
</tbody>
</table>

Figure 3-138. M1167 Rigged for Low-Velocity Airdrop
### Table 3-6. Equipment Required for Rigging the M1167 for Low-Velocity Airdrop

<table>
<thead>
<tr>
<th>National Stock Number</th>
<th>Item</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>8040-00-273-8713</td>
<td>Adhesive paste, 1-gallon</td>
<td>As required</td>
</tr>
<tr>
<td>4030-00-090-5354</td>
<td>Clevis, suspension, 1-inch (large)</td>
<td>17</td>
</tr>
<tr>
<td>4030-00-678-8562</td>
<td>Clevis, suspension, 3/4-inch (medium)</td>
<td>4</td>
</tr>
<tr>
<td>4020-00-240-2146</td>
<td>Cord, nylon, type III, 550-lb</td>
<td>As required</td>
</tr>
<tr>
<td>1670-00-434-5787</td>
<td>Coupling, airdrop extraction force transfer, w/20-ft. cable</td>
<td>1</td>
</tr>
<tr>
<td>8135-00-664-6958</td>
<td>Cushioning material (Cellulose wadding)</td>
<td>As required</td>
</tr>
<tr>
<td>1670-01-394-0825</td>
<td>Drive Off Aid Type V</td>
<td>2</td>
</tr>
<tr>
<td>8305-00-958-3685</td>
<td>Felt,</td>
<td>As required</td>
</tr>
<tr>
<td>1670-01-183-2678</td>
<td>Leaf, extraction line (line bag) (C-130)</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Leaf, extraction line (line bag) C-17/C130J</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Line extraction:</td>
<td></td>
</tr>
<tr>
<td>1670-01-062-6313</td>
<td>60-foot (3-loop), type XXVI (for C-130/J)</td>
<td>1</td>
</tr>
<tr>
<td>1670-01-107-7651</td>
<td>140-foot (3-loop), type XXVI (for C-17/C-130J)</td>
<td>1</td>
</tr>
<tr>
<td>1670-01-064-4452</td>
<td>60-foot (1-loop), type XXVI (for C-17/C-130J), (drogue line)</td>
<td>1</td>
</tr>
<tr>
<td>1670-01-493-6418</td>
<td>Link assembly, two-point, 3 ¾-inch, small:</td>
<td>1</td>
</tr>
<tr>
<td>1670-01-493-6420</td>
<td>Link assembly, two-point, 5 ½ -inch, large</td>
<td>4</td>
</tr>
<tr>
<td>Lumber:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5510-00-550-6969</td>
<td>1- by 6- by 48-inch</td>
<td>1</td>
</tr>
<tr>
<td>5510-00-220-6146</td>
<td>2- by 4- by 96-inch</td>
<td>4</td>
</tr>
<tr>
<td>5510-00-220-6148</td>
<td>2- by 6- by 96-inch</td>
<td>6</td>
</tr>
<tr>
<td>5315-00-010-4659</td>
<td>Nail, steel, common, 8D</td>
<td>As required</td>
</tr>
<tr>
<td>1670-00-753-3928</td>
<td>Pad, energy-dissipating (honeycomb)</td>
<td>26 sheets</td>
</tr>
<tr>
<td>1670-01-016-7841</td>
<td>Parachute, cargo, G-11B</td>
<td>4</td>
</tr>
<tr>
<td>Parachute, cargo, extraction:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1670-01-063-3716</td>
<td>22-foot</td>
<td>1</td>
</tr>
<tr>
<td>1670-01-063-3715</td>
<td>15-foot (C-17/C130J) (DES)</td>
<td>1</td>
</tr>
<tr>
<td>Platform, airdrop, type V, 20-foot:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1670-01-162-2372</td>
<td>Clevis assembly (type V)</td>
<td>42</td>
</tr>
<tr>
<td>1670-01-247-2389</td>
<td>Link, suspension bracket</td>
<td>2</td>
</tr>
<tr>
<td>1670-01-162-2381</td>
<td>Link, tandem, link suspension assembly</td>
<td>4</td>
</tr>
<tr>
<td>1670-01-162-2376</td>
<td>Extraction bracket assembly</td>
<td>1</td>
</tr>
<tr>
<td>5530-00-128-4981</td>
<td>Plywood, 3/4-inch</td>
<td>7 sheets</td>
</tr>
</tbody>
</table>
Table 3-6. Equipment Required for Rigging the M1167 for Low-Velocity Airdrop (Continued)

<table>
<thead>
<tr>
<th>National Stock Number</th>
<th>Item</th>
<th>Quantity</th>
</tr>
</thead>
</table>
| 1670-01-097-8817      | Release, cargo parachute, M-2  
Sling, cargo, airdrop:  
For Deployment | 1 |
| 1670-01-062-6304      | 9-foot (2-loop), type XXVI  
For Lifting | 1 |
| 1670-01-062-6304      | 9-foot (2-loop), type XXVI | 2 |
| 1670-01-062-6303      | 12-foot (2-loop), type XXVI  
For Suspension | 2 |
| 1670-01-062-6306      | 3-foot (4-loop), type XXVI | 8 |
| 1670-01-062-6305      | 9-foot (4-loop), type XXVI | 4 |
| 1670-01-062-6310      | 11-foot (4-loop), type XXVI | 4 |
| 1670-01-062-6307      | 12-foot (4-loop), type XXVI | 4 |
| 5340-00-040-8219      | Strap, parachute, release, multi-knife | 2 |
| 7501-00-266-5016      | Tape, adhesive, 2-inch | As required |
| 1670-00-937-0271      | Tiedown assembly, 15-foot  
D-rings, heavy duty, 10,000-lb  
Binder, load, 10,000-lb | 50  
42  
42 |
| 1670-01-483-8259      | Towplate release mechanism (H-block) (C-17) | 1 |
| 1670-01-072-1378      | Towplate release mechanism (H-block) (C-130J) | 1 |
| Webbing:              | Cotton, 1/4-inch, type I | As required |
| 8305-00-268-2411      | Nylon, tubular, 1/2-inch | As required |
| 8305-00-559-6871      | Nylon, type VIII | As required |

Legend

lb     pounds
Chapter 4

Rigging Specific Accompany Loads in HMMWV-Series Trucks for Low-Velocity Airdrop

DESCRIPTION OF LOADS

4-1. This chapter describes and details 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. Consult the chapter or section for the truck shown to find alternative truck models that can be used to rig the load.

PREPARING ACCOMPANING LOADS

4-2. There are 17 separate sections in this chapter. Each section provides detailed instructions on how to prepare various military equipment in the cargo areas of the HMMWV series trucks. Since loads in actual tactical situations vary greatly, and equipment changes frequently, use these procedures as a guideline 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.

CAUTION

Only ammunition listed in TM 4-48.16 (FM 4-20.153)/MCRP 4-11.3B/TO 137-18-41 may be airdropped. Package, mark, and label hazardous material according to AFMAN 24-204/TM 38-250.
4-3. Use the procedures in Figures 4-1 and 4-2 to stow the tactical army combat service support computer system (TACCS), 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 tiedown 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 tiedown rings on both sides.

Figure 4-1. 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 4-1. TACCS, Ammunition, and Truck Equipment Rigged in Cargo/Troop Carrier (continued)
① Place an 18- by 52-inch piece of honeycomb against the keyboard and printer boxes.
② Place an 18- by 52-inch piece of honeycomb on the cargo bed floor.
③ Place six boxes of 20mm ammunition on the honeycomb. Place two pieces of ½- by 15- by 19-inch felt between the third and fourth boxes.
④ Bind the boxes together with the lashing placed in step 1.

Figure 4-2. TACCS, Ammunition, and Truck Equipment Secured in Cargo/Troop Carrier
⑤ Place the tarpaulin supports between the two sets of boxes.

⑥ Place the roof support of four-door trucks against the honeycomb placed in step 5. Secure it to the B-pillar with type III cord.

⑦ 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.

⑧ Tie the truck doors together with type III nylon cord and place them on the tarpaulin.

⑨ Secure the doors to the lashing D-rings and other convenient points with type III nylon cord.

⑩ Close the tailgate and secure it with ½-inch tubular nylon webbing.

Figure 4-2. TACCS, Ammunition, and Truck Equipment Secured in Cargo/Troop Carrier (continued)
SECTION II: RIGGING AN/TVQ/2 GROUND/VEHICLE LASER LOCATOR DESIGNATOR (G/VLLD) IN M966 TOW CARRIER

4-4. Use the procedures in Figures 4-3 and 4-4 to stow the ground/vehicle laser locator designator (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 tiedown 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 4-3. Ground/Vehicle Laser Locator Designator and Cab Accompanying Equipment Rigged in M966 Truck*
4. Tie an 8-foot length of ½-inch tubular nylon webbing to the deck ring behind each rear seat with two half hitches.

5. Tie an 8-foot length of ½-inch tubular nylon webbing to the frame behind each rear set with two half hitches.

6. Tie an 8-foot length of ½-inch tubular nylon webbing through each rear seat support. Tape the ends of the seat supports.

Figure 4-3. Ground/Vehicle Laser Locator Designator and Cab Accompanying Equipment Rigged in M966 Truck (continued)
⑦ Tie the camouflage net and net pole bags together with two lengths of ½-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 4-3. Ground/Vehicle Laser Locator Designator and Cab Accompanying Equipment Rigged in M966 Truck (continued)
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.

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

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 4-4. Ground/Vehicle Laser Locator Designator and Cargo Area Accompanying Equipment Rigged in M966 Truck**
④ Make cutouts in a 31 ½- by 35-inch piece of honeycomb to fit the fixtures on the floor. Fit a 9 ½- by 10 ½-inch piece of honeycomb in the front right.

⑤ Place a 31 ½- by 35-inch piece of honeycomb over the honeycomb placed in step 14 above.

⑥ Place two 15-foot lashings vertically and two 15-foot lashings horizontally on top of the honeycomb.

Figure 4-4. Ground/Vehicle Laser Locator Designator and Cargo Area Accompanying Equipment Rigged in M966 Truck (continued)
7. Place the transformer at the left front edge of the honeycomb.
8. Place a 12 ½-inch by 20 ½-inch piece of honeycomb to the right of the transformer.
9. Place the laser designator/rangefinder (LD/R) case next to the honeycomb.
10. Place a ¾-inch by 12 ½-inch by 20 ½-inch piece of plywood to the right of the LD/R case.
11. Place the accessory chest along the rear edge of the honeycomb.
12. Secure the four lashings placed in step 16 with D-rings and load binders.
13. Place and secure a fifth 15-foot lashing around the items on the honeycomb.

Figure 4-4. Ground/Vehicle Laser Locator Designator and Cargo Area Accompanying Equipment Rigged in M966 Truck (continued)
14. Place the antenna poles on top of the load. Secure them to convenient points with type III nylon cord.

15. Place any other truck equipment on top of the load, and secure it with ½-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.

16. Pass a 15-foot lashing over the load from the right rear to the left front tiedown ring. Secure it with a D-ring and a load binder.

17. Pass a 15-foot lashing over the load from the left rear to the right front tiedown ring. Secure it with a D-ring and a load binder.

Figure 4-4. Ground/Vehicle Laser Locator Designator and Cargo Area Accompanying Equipment Rigged in M966 Truck (continued)
SECTION III: RIGGING AN/USG-70 POSITION AND AZIMUTH DETERMINING SYSTEM (PADS) IN M998 CARGO/TROOP CARRIER

4-5. Use the procedures shown in Figure 4-5 to rig the position and azimuth determining system (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 tiedowns provided with a 15-foot lashing. Pass the lashing through the handles of the battery box.

Figure 4-5. PADS and Ammunition Rigged in M998 Truck
4. Place the computer display unit (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 4-5. PADS and Ammunition Rigged in M998 Truck (continued)
Notes. 1. All measurements are given in inches.
   2. This drawing is not drawn to scale.

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 computer display
unit (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 4-5. PADS and Ammunition Rigged in M998 (continued)
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 4-5. PADS and Ammunition Rigged in M998 Truck (continued)
10 Pass a 15-foot lashing through the center tiedown rings. Pass a 5-foot lashing through the left front and right rear tiedown rings. Pass another 15-foot lashing through the left rear and right front tiedown 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 4-5. PADS and Ammunition Rigged in M998 Truck (continued)
Center four boxes of ammunition on the honeycomb.

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

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

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

Figure 4-5. PADS and Ammunition Rigged in M998 Truck (continued)
17 Set a padded fuel can and plastic water can between the ammunition boxes and wheel wells at the rear of the load. Tie them to the nearest tiedown rings, to the position and azimuth determining system frame, and to the binding lashings with ½-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 and close the tailgate and tie it with ½-inch tubular nylon webbing (not shown).

Figure 4-5. PADS and Ammunition Rigged in M998 Truck (continued)
4-6. Use the procedures shown in Figures 4-6 through 4-10 to rig the battery computer system (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.

**Notes.**
1. All measurements are given in inches.
2. This drawing is not drawn to scale.

1. Remove the antenna 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 battery computer system (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 4-6. BCS and Accompanying Equipment Prepared in M998 Truck*
1 Center an 18- by 25-inch piece of honeycomb against the right side of the computer box.

2 Place a ¾- by 18- by 25-inch piece of plywood flush against the honeycomb placed in step 1 above.

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

4 Place a ¾- by 18- by 25-inch piece of plywood flush against the left side of the honeycomb placed in step 6 above.

Figure 4-7. BCS and Accompanying Equipment Honey Comb Placed in M998 Truck
① Place a ¾- by 27- by 47-inch piece of plywood flush over the honeycomb and plywood placed in Figure 4-7 steps 1 through 4.

② 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.

③ 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.

④ Run a 15-foot lashing around the plywood and honeycomb placed in Figure 4-7 steps 1 through 4. Fasten the lashing on the rear side.

Figure 4-8. BCS Computer Box Placed and Secured in M998 Truck
① Cover the bed of the truck between the center and rear tiedown rings with a 12- by 48-inch piece and a 36- by 48-inch piece of honeycomb. Place the honeycomb as shown.

② Place the generator on the honeycomb against the left wheel well. Lash each corner of the generator frame to the nearest tiedown ring.

Figure 4-9. BCS Generator Placed and Secured in M998 Truck
① Set a padded fuel can and a plastic water can to the left of the battery computer system (BCS) rack. Tie them to the rack with type III nylon cord.

② Roll and tie the generator cable with type I, ¼-inch cotton webbing. Lay it to the right of the generator, and tie the cable to the center tiedown rings with type III nylon cord.

③ 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 tiedown rings.

④ Secure the small truck antenna to the truck sideboards with type III nylon cord.

⑤ Place the spool of communications wire over the right center tiedown ring. Tie it to the ring with type III nylon cord.

⑥ Place the camouflage net poles over the antenna bag. Secure them to the left and right center tiedown rings with type III nylon cord.

⑦ Pad the blades of the two shovels with cellulose wadding taped in place. Tie the shovels to the right rear and right center tiedown rings with type III nylon cord.

Figure 4-10. BCS and Accompanying Equipment Rigged in M998 Truck
8. Place the camouflage net bag on the right side of the cargo bed.
9. Fold the tarpaulin and cab cover, and place them over the generator cable and shovels.
10. Place the plotting boards over the truck covers.
11. Pass a 15-foot lashing through the right rear tiedown ring, over the plotting boards, and through the left front tiedown ring. Secure the lashing on top of the load.
12. Pass a 15-foot lashing through the center rear tiedown ring, over the plotting boards, and through the right front tiedown ring. Secure the lashing on top of the load.
13. Tie the bows together with type III nylon cord. Tie them to the sideboards with type III nylon cord.
14. Close the tailgate, and secure it with ½-inch tubular nylon webbing.
15. Tape the snap hooks on the safety strap.

Figure 4-10. BCS and Accompanying Equipment Rigged in M998 Truck (continued)
SECTION V: RIGGING AN/VSC-2 RADIOTELETYPE IN M998 TRUCK

4-7. Use the procedures shown in Figure 4-11 to 4-13 to rig the AN/VSC-2 radioteletype, two generators, and truck and crew equipment. This load weighs 1,373 pounds.

**Figure 4-11. AN/VSC-2 Radioteletype Cab Rigged in M998 Truck**

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.
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- by 15-inch piece of honeycomb. Tie the honeycomb over the crypto unit with ½-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 4-11. AN/VSC-2 Radioteletype Cab 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 length 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 ½-inch tubular nylon webbing tied to the brace behind the driver’s seat and to the crossbar behind the rear seats.

Figure 4-11. AN/VSC02 Radioteletype Cab Rigged in M998 Truck (continued)
⑬ Wrap two filled fuel cans with cellulose wadding taped in place. Lash the fuel cans to the left rear seat back with a 15-foot lashing, a D-ring, and a load binder.

⑭ Tie a length of ½-inch tubular nylon webbing to the brace behind the driver's seat. Run the webbing through the fuel can handles, and tie it to the crossbar behind the left rear seat.

⑮ Wrap an oil can with cellulose wadding taped in place. Tie the oil can to the rear seat hinges and to the front seat with ½-inch tubular nylon webbing.

Figure 4-11. AN/VSC-2 Radioteletype Cab Rigged in M998 Truck (continued)
16 Place the truck doors and cover between two 36- by 46-inch pieces of honeycomb. Makes a 6-by 16-inch cutout in the bottom piece to allow for the antenna mount. Cut the adjacent corner about 8 inches to allow for the crypto box. Tape the bottom and top edges of the honeycomb. Tie the bundle together with two lengths of type III nylon cord.

17 Place the doors and cover on top of the right rear seat and teletype, with the cutout in the bottom honeycomb piece over the antenna mount. Tie the bundle to the crossbar and front seat braces with two lengths of ½-inch tubular nylon webbing.

Figure 4-11. AN/VSC-2 Radioteletype Cab Rigged in M998 Truck (continued)
① Form four 30-foot lashings according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5 4-20.102/TO 13C7-1-5 (not shown).

② Center a lashing through the rear center tiedown ring.

③ Center a lashing through the front center tiedown ring.

④ Pass a lashing through the front and rear tiedown rings on each side.

Figure 4-12. AN/VSC-2 Radioteletype Generator Rigged in M998 Truck
5. Pass two 15-foot lashings around the center and top horizontal bars of each generator.
6. Tape the gauges.
7. Pad the front ends of the generator frames with felt. Tie the felt in place with type III nylon cord.
8. Raise the truck bow, but do not detach them.
9. Cover the cargo bed, using two 36- by 42-inch and two 15- by 42- inch pieces of honeycomb as shown above.
10. Place the two generators against the crossbar, facing as shown.
11. Pad the outside rear frames with felt, tied in place with type III nylon cord.
12. Place a 24- by 34-inch piece of honeycomb between the two generators.

Figure 4-12. AN/VSC-2 Radioteletype Generator Rigged in M998 Truck (continued)
① Pad three filled fuel cans with cellulose wadding, and tape the wadding in place. Set the fuel cans flat against the rear of the generators.

② Tie a filler nozzle to the center can handle with type III nylon cord.

③ Close the tailgate and tie it with ½-inch tubular nylon webbing.

④ Secure the fuel cans to the tailgate brackets with ½-inch tubular nylon webbing, running the webbing through the can handles.

Figure 4-13. AN/VSC-2 Radioteletype Cargo Area Rigged in M998 Truck
⑤ Run the lashing placed in step 19 around the front of the generators. Secure it with two D-rings and a load binder on the side of the load.

⑥ Run the lashing placed in step 20 around the rear of the fuel cans. Secure it with two D-rings and load binder on the side of the load.

⑦ Place a ¾- by 32- by 50-inch piece of plywood over the generators.

⑧ Join the running ends of the lashings placed in step 21 as follows: left front to right rear, and left rear to right front. Fasten the lashings on top of the plywood with two D-rings and a load binder.

⑨ Lower the bows toward the rear of the truck.

Figure 4-13. AN/VSC-2 Radioteletype Cargo Area Rigged in M998 Truck (continued)
Place three 10-foot lengths of ½-inch tubular nylon webbing over the wheel wells and down through the footman loops. Extend the webbing under the horizontal bar on the generator frame and up over the generator.

Lay the antenna case, the probe rods and stake driver, and the camouflage net pole bag (in order) over the webbing on the wheel well.

Tie the three lengths of nylon over the items placed in step 40 above.

Lay the soft top enclosure supports over the folded bows at the rear of the truck. Pad and tape all sharp fixtures.

Tie the items together with type III nylon cord.

Tie all the bows to the rear shackles with type III nylon cord.

Tie all the bows to the footman loops with ½-inch tubular nylon webbing.

Figure 4-13. AN/VSC-2 Radioteletype Cargo Area Rigged in M998 Truck (continued)
SECTION VI: RIGGING DIVISION ASSAULT COMMAND RADIO SYSTEM IN M998 TRUCK

4-8. Use the procedures shown in Figures 4-14 through 4-16 to rig the Division Assault Command Radio System, and truck and crew equipment. This load weighs 1,520 pounds.

1. Secure the cab-mounted radios to their mounts and to the rack behind the seats with ½-inch tubular nylon webbing.

2. Wrap the fire extinguisher with cellulose wadding taped in place. Tie the fire extinguisher to the radio rack behind the seats with type III nylon cord.

Figure 4-14. Division Assault Command Radio System Cab Rigged in M998 Truck
① Make sure all radio equipment is secured in its mounts. Reinforce the equipment and mounts with ½-inch tubular nylon webbing if necessary (not shown).

② Secure the communications security devices (shown covered with paper) to their racks with ½-inch tubular nylon webbing.

③ Place the tabletops on edge in the area between the cargo floor and the equipment racks.

④ Pad the rear antenna mounts with cellulose wadding. Tape the wadding in place.

⑤ Remove the antenna mount from the left side of the truck. Pad it with cellulose wadding, and place it in the radio equipment chest. (not shown)

Figure 4-15. Division Assault Command Radio System Cargo Area Prepared in M998 Truck
⑥ Place a 79- by 21-inch piece of honeycomb over the radios. Secure it with ½-inch tubular nylon webbing.

⑦ Place a 79- by 27-inch piece of honeycomb on edge against the tabletops and radios. Secure it with ¼-inch tubular nylon webbing.

⑧ Place a 15-foot lashing through each of the three pairs of cargo bed tiedown rings in a front-to-rear direction.

⑨ Place a 15-foot lashing across the width of the cargo bed 38 inches from the front radio equipment rack.

Figure 4-15. Division Assault Command Radio System Cargo Area Prepared in M998 Truck (continued)
① Place a 36- by 59-inch piece of honeycomb and a 15- by 59-inch piece of honeycomb side by side to cover the cargo bed.

② Place a 7- by 16-inch piece of honeycomb between the left wheel well and the honeycomb placed in Figure 4-15 step 7 (not shown). Pad the GRC-46 radio with cellulose wadding. Tape the wadding in place. Lay the radio on its side on the honeycomb placed above. Tie it to convenient points with ½-inch tubular nylon webbing.

③ Place these items in the cargo bed from left to right in order; large radio equipment chest, two 17- by 33-inch pieces of honeycomb placed on edge, and the small radio equipment chest.

Figure 4-16. Division Assault Command Radio System Cargo Area Equipment Rigged in M998 Truck
④ Lay four OE 254 antenna sets across the cargo bed.
⑤ Place the RL-31 rack on top of the antenna bags.
⑥ Fasten the lashings placed in Figure 4-15 step 8 using D-rings and load binders. Cross the outer lashings as shown.
⑦ Fasten the lashing placed in Figure 4-15 step 9 over the boxes with a D-ring and load binder.

Figure 4-16. Division Assault Command Radio System Cargo Area Equipment Rigged in M998 Truck (continued)
**Notes.**

1. All measurements are given in inches.
2. This drawing is not drawn to scale.

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8) Close and tie the tailgate with ½-inch tubular nylon webbing.

9) Tie a 12- by 24-inch piece of honeycomb over the left communications security device with type III nylon cord.

10) Make a cutout in a 24- by 36-inch piece of honeycomb as shown. Cover the right radio and communications security device with the honeycomb.

11) Place the reel of WD1A wire on the left wheel well. Tie it to the body side rack as shown with ½-inch tubular nylon webbing.

12) Place the truck cover on top of the equipment chests. Tie them to convenient points with type III nylon cord.

13) Place the camouflage net bag on top of the rack unit. Tie the bag to convenient points with type III nylon cord.

14) Tie the bows together and secure them to the load with type III nylon cord.

15) Install the safety strap and tape the latches.

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**Figure 4-16. Division Assault Command Radio System Cargo Area Equipment Rigged in M998 Truck (continued)**
SECTION VII: RIGGING MOBILE SUBSCRIBER RADIO TELEPHONE IN M998 TRUCK

4-9. Use the procedures show in Figures 4-17 and 4-18 to rig the Mobile Subscriber Radio Telephone Terminal (AN/VRC-97). Rig equipment in addition to the items shown to meet the weight requirement.

1. Remove the whip antenna from the antenna mount. Remove the receiver/transmitter from its base.

2. Pad the receiver/transmitter mounting bracket with three pieces of 11- by 14 ½-inch felt.

3. Return the receiver/transmitter to its mount and be sure that the mounting bolts are properly tightened. Secure the receiver/transmitter to its mount with two lengths of ½-inch tubular nylon webbing tied to the carrying handles. Tie the nylon webbing with surgeon’s and locking knots with overhand knot in the running ends.

4. Secure the frequency fill cable with the hook-and-loop straps provided, and with three lengths of type III nylon cord.

Figure 4-17. Receiver/Transmitter RT-1539 Prepared and Secured
⑤ Center a 30-foot lashing through the tiedown provision behind the right rear wheel. Pass both ends of the lashing over the receiver/transmitter and through the carrying handles.

⑥ Cross the lashing in front of the receiver/transmitter and pass it through the cargo bed tiedown rings. Secure the lashing with two D-rings and a load binder.

⑦ Safety tie any cables to convenient stationary points with type III nylon cord.

⑧ Place a 15- by 30-inch piece of honeycomb on top of the receiver/transmitter. Tape the upper 30-inch sides of the honeycomb. Secure the honeycomb to the receiver/transmitter with type III nylon cord. Run the cord over the honeycomb from the right carrying handle to the left rear mounting bracket, and from the left carrying handle to the right rear mounting bracket.

Figure 4-17. Receiver/Transmitters RT-1539 Prepared and Secured (continued)
① Secure the digital subscriber voice terminal (DSVT) in the bracket between the seats with its mounting bolts.

② Make a pad of the upper dimensions of the DSVT with cellulose wadding covered with tape. Secure the pad to the DSVT with two lengths of type III nylon cord tied to convenient stationary points.

③ Cut a piece of honeycomb to fit the top of the remaining DSVT components. Cut smaller pieces of honeycomb to support the top piece. Tie the honeycomb to the mounts with type III nylon cord.

Figure 4-18. Digital Subscriber Voice Terminal (KY-68) Components Prepared and Secured
SECTION VIII: RIGGING LIGHTWEIGHT TACTICAL FIRE DIRECTION CONTROL SYSTEM (LTACFIRE) IN M998 TRUCK

4-10. Use the procedures shown in Figures 4-19 through 4-21 to rig the components of the lightweight tactical fire direction system (LTACFIRE) and accompanying equipment. The LTACFIRE system consists of a SINCGARS (Single Channel Ground and Airborne Radio System) mounted in a rack. The upper rack has a program load unit (PLU), a power distribution box (PDB), and a digitizer mounted in it. The printer and monitor have their own containers. A keyboard requires a container to be made of honeycomb. Miscellaneous items include, but are not limited to, a map board, field desk, footlocker, camouflage net and poles, and two folding chairs.

Remove all components of the lightweight tactical fire direction system (LTACFIRE) system and accompanying equipment from the truck except the SINCGARS mounted in their rack bolted to the bed of the carrier. Raise and secure the left and right side troop seats.

Figure 4-19. LTACFIRE and Accompanying Equipment Cargo Area Prepared in M998 Truck
② Place a 30-foot lashing through the right rear cargo bed tiedown ring and the left front cargo bed tiedown ring. Place the joined D-rings at the center of the cargo bed.

③ Place another 30-foot lashing as outlined in step 2, but from the left rear to the right front cargo bed tiedown ring.

④ Place another 30-foot lashing with the joined D-rings in the center of the bed. Run the lashing through the front and rear center tiedown rings, and up over the radio rack.

Figure 4-19. LTACFIRE and Accompanying Equipment Cargo Area Prepared in M998 Truck (continued)
5. Bind three 5-gallon cans together with 15-foot lashings. Secure a group of three cans to the radio rack on each side with a 15-foot lashing. Place the load binders on the front side.

6. Cover the cargo bed with a single layer of honeycomb.

Figure 4-19. LTACFIRE and Accompanying Equipment Cargo Area Prepared in M998 Truck (continued)
Move any prepositioned lashings aside, and place a 24- by 54-inch piece of honeycomb on top of the radio rack and secure it with type III nylon cord.

Place one camouflage net pole bag on top of the honeycomb placed in step 7 above. Secure the bag to the radio rack with two 15-foot lashings.

Figure 4-19. LTACFIRE and Accompanying Equipment Cargo Area Prepared in M998 Truck (continued)
Pad the radio with cellulose wadding. Tape the wadding place.

Place a 24 ½- by 47-inch piece of honeycomb against the radio rack and secure it in place with type III nylon cord.

Figure 4-19. LTACFIRE and Accompanying Equipment Cargo Area Prepared in M998 Truck (continued)
11. Place three 15-foot lashings evenly spaced from right to left on the honeycomb placed in step 6.

12. Place two more 15-foot lashings on the honeycomb running from front to rear.

Figure 4-19. LTACFIRE and Accompanying Equipment Cargo Area Prepared in M998 Truck
(continued)
① Build a container for the keyboard with three 16- by 26-inch pieces of honeycomb. Center a 10 ½- by 20 ½-inch hole in the center piece, wrap the keyboard with cellulose wadding, and place the keyboard in the cutout.

② Tape the solid pieces of honeycomb to the top and bottom of the container.

Figure 4-20. LTACFIRE and Accompanying Equipment Prepared in M998 Truck
③ Place the monitor in its container and close the latch.
④ Place the printer in its container and close the latch.

Figure 4-20. LTACFIRE and Accompanying Equipment Prepared in M998 Truck
(continued)
⑤ Turn the digitizer around in the upper rack, pad it with cellulose wadding, and secure the wadding with tape.

*Note.* This rack is not installed in the truck at this time.

⑥ Cover the printer cover with cellulose wadding, and place it in the center space on the rack. Secure it to the rack with type III nylon cord.

*Figure 4-20. LTACFIRE and Accompanying Equipment Prepared in M998 Truck* (continued)
7 Pad the face of the power distribution box (PDB) and the program load unit (PLU) with cellulose wadding taped in place.

8 Place a 17- by 19 ½-inch piece of honeycomb on top of the PLU. Crush the honeycomb to allow for the printer mount and tie the honeycomb to the PLU with type III nylon cord.

9 Place the keyboard container made in steps 1 and 2 on top of the PDB, and tie it in place with type III nylon cord.

Figure 4-20. LTACFIRE and Accompanying Equipment Prepared in M998 Truck (continued)
① Place the map board face down on the honeycomb in the truck cargo bed.
② Place the upper rack in the truck cargo bed as shown.
③ Place one field desk in the truck cargo bed.
④ Place the two folding chairs on the upper rack.
⑤ Place the truck cab cover between the field desk and upper rack.

Figure 4-21. LTACFIRE and Accompanying Equipment Placed and Secured in M998 Truck
⑥ Place the footlocker (containing antenna mounts and any other small items) in the cargo bed.

⑦ Fill the space between the footlocker and the program load unit section of the upper rack with four pieces of honeycomb cut to fit.

⑧ Place the camouflage net bag on the footlocker and honeycomb, against the field desk.

Figure 4-21. LTACFIRE and Accompanying Equipment Placed and Secured in M998 Truck (continued)
(9) Place the monitor case on the upper rack.
(10) Place the printer case on the footlocker.
(11) Fill the space between the printer and monitor cases with three pieces of honeycomb cut to fit.
(12) Tape the antennas together and tie them to the upper radio rack with type III nylon cord (not shown).

Figure 4-21. LTACFIRE and Accompanying Equipment Placed and Secured in M998 Truck (continued)
13. Cover the items with the folded truck cargo bed cover.

14. Secure the three lashings pre-positioned under the honeycomb in steps 2 through 4 over the load.

15. Secure the lashings placed in steps 11 and 12 over the load, passing them through box carrying handles whenever possible.

16. Close the tailgate and secure it with ½-inch tubular nylon webbing.

17. Tie the bows together and secure them to convenient points with type III nylon cord.

Figure 4-21. LTACFIRE and Accompanying Equipment Placed and Secured in M998 Truck (continued)
4-11. Use the procedures shown in Figure 4-22 to rig the initial fire support automated system (IFSAS) in a cargo/troop carrier-configured truck. An additional 500 pounds of equipment must be added to the items shown to meet the minimum weight requirement of 800 pounds for the accompanying load. Boxes of 105-millimeter ammunition are shown here, but other items weighing the same or more may be used.

1 Place the computer unit in its soft carrying bag. Place the bag in the hard case and secure the case.

Figure 4-22. Initial Fire Support Automated System Rigged in M998 Truck
② Place the printer and the paper tray in the soft carrying bag. Place the bag in the hard case and secure the case (not shown).

③ Place the power supply and the power cable in the soft carrying bag. Place the bag in the hard case and secure the case (not shown).

Figure 4-22. Initial Fire Support Automated System Rigged in M998 Truck (continued)
4. Center an indentation with the dimensions of the hard drive in two 8- by 12-inch pieces of honeycomb. Place felt or a cellulose wadding pad of the same dimensions in each indentation.

5. Place the hard drive in the indentations and tape the second piece of the honeycomb over the first as a cover.

6. Tie the hard drive box to the seat frame with type III nylon cord.

Figure 4-22. Initial Fire Support Automated System Rigged in M998 Truck (continued)
⑦ Stow unit equipment or ballast sufficient to meet the minimum load weight of 800 pounds. Boxes of ammunition are placed on a layer of honeycomb and under the plywood shown in this figure.

⑧ Place a 16- by 36-inch piece of honeycomb on the floor between the ammunition boxes and the front equipment racks. Center the computer case on the honeycomb with the handle facing the front.

⑨ Evenly space two 19- by 21-inch pieces of felt 6 inches from the front edge of the plywood. Place the two remaining hard cases on the felt with the carrying handles facing the front.

⑩ Secure the cases to tiedown rings and equipment racks with ½-inch tubular nylon webbing. Pass the webbing through the case carrying handles whenever possible.

⑪ Stow additional unit equipment as the mission dictates and according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5. Cover the load with a canvas load cover secured to convenient points with type III nylon cord (not shown).

Figure 4-22. Initial Fire Support Automated System Rigged in M998 Truck (continued)
SECTION X: RIGGING SEMI-AUTOMATIC METEOROLOGICAL SENSOR (SMS) IN M998 TRUCK

4-12. Use the procedures shown in Figure 4-23 to rig the semi-automatic meteorological sensor (SMS) in a cargo/troop carrier-configured truck. Additional equipment must be added to the items shown to meet the minimum weight requirement of 800 pounds for the accompanying load.

1. With the assistance of the unit owning the semi-automatic meteorological sensor (SMS), be sure that the SMS is complete and properly padded in its case.
2. Fold the tripod and secure its parts together with the straps provided.
3. Tie the tripod to the rear of the cab radio mount with ½-inch tubular nylon webbing.

Figure 4-23. Rigging SMS in Cargo/Troop Carrier
4. Place the semi-automatic meteorological sensor case on the passenger seat with the top carrying handle facing toward the passenger door.

5. Route two lengths of ¼-inch tubular nylon webbing through the carrying handle that is now on the case bottom. Tie each length of webbing to the passenger seat frame on each side.

6. Tie two lengths of ¼-inch tubular nylon webbing to the top case handle. Secure this nylon webbing to the passenger seat frame on each side with a trucker’s hitch.

Figure 4-23. Rigging SMS in Cargo/Troop Carrier (continued)
⑦ Tie two lengths of ½-inch tubular nylon webbing around the case and the seat back. Tie one length above the outside carrying handle, and tie the other length through the carrying handle.

Figure 4-23. Rigging SMS in Cargo/Troop Carrier (continued)
SECTION XI: RIGGING GUN LAYING POSITIONING SYSTEM (GLPS) IN M998 TRUCK

4-13. Use the procedures shown in Figures 4-24 to rig the gun laying positioning system (GLPS) in a cargo/troop carrier-configured truck (the M1056 truck outfitted as an artillery prime mover is shown). The gun laying positioning system consists of four components, each in its own case. The components are the gyro, theodolite, charger, and winterization kit. Additional equipment must be added to the items shown to meet the minimum weight requirement of 800 pounds for the accompanying load.

1. Wrap the tripod with cellulose wadding. Tape the wadding in place.
2. Tie the tripod to the truck cargo bed rack with type III nylon cord.

Figure 4-24. Gun Laying Positioning System Rigged in M1056 Truck
With the assistance of the unit owning the equipment, be sure the individual components are complete and cushioned in their cases.

Figure 4-24 Gun Laying Positioning System Rigged in M1056 Truck (continued)
Alternate three 24- by 26-inch pieces of honeycomb with cases 3 and 4 as shown. Tape the outside long edges of the honeycomb. Place type III nylon cord of sufficient length for ties under the stack.

Secure the front-to-rear ties around the cases and honeycomb.

Place a 26- by 16-inch piece of honeycomb against each side of the stack. Tape the outside top and bottom edges of the honeycomb. Secure the honeycomb to the sides of the cases with the remaining lengths of type III nylon cord.

Figure 4-24. Gun Laying Positioning System Rigged in M1056 Truck (continued)
7. Place a 26- by 16-inch piece of honeycomb over two lengths of type III nylon cord placed lengthwise. Place case 1 and an additional 26- by 16-inch piece of honeycomb on top of the bottom piece. Tape the outside edges of the honeycomb and tie the type III nylon cord over the package.

8. Place case 2 on end as shown and leave it in this position. Place a 16- by 14-inch piece of honeycomb over two lengths of type III nylon cord placed lengthwise. Place case 2 and an additional 16- by 14-inch piece of honeycomb on top of the bottom piece. Tape the outside edges of the honeycomb and tie the type III nylon cord over the package.

Figure 4-24. Gun Laying Positioning System Rigged in M1056 Truck (continued)
9. Tie two loops of 14-inch lengths of ½-inch tubular nylon webbing to the radio mount supports.

10. Tie a 10-foot length of ½-inch tubular nylon webbing to each of the tie provisions on the front edge of the cargo bed.

11. Place cases 3 and 4 to the rear of the radio mount. Tie the ½-inch tubular nylon webbing placed in step 10 above to the loops placed in step 9 above, crossing over the boxes as shown. Tie off with a trucker’s hitch.

Figure 4-24. Gun Laying Positioning System Rigged in M1056 Truck (continued)
12. Tie two 10-foot lengths of ½-inch tubular nylon webbing to points behind the passenger seat.

13. Form a 14-inch loop of ½-inch tubular nylon webbing through the lower passenger side door hinge. Form a second 14-inch loop of ½-inch tubular nylon webbing through the inside passenger seat hinge.

14. Place case 1 in the passenger seat, and tie the case to the seat back with a length of ½-inch tubular nylon webbing.

15. Tie the ½-inch tubular nylon webbing placed in step 12 above to the loops placed in step 13 above, crossing over the boxes as shown. Tie off with a trucker’s hitch.

Figure 4-24. Gun Laying Positioning System Rigged in M1056 Truck (continued)
16. Tie a length of ½-inch tubular nylon webbing to the front cargo bed wall behind the driver’s seat in two places, forming a loop as shown.

17. Tie a length of ½-inch tubular nylon webbing to the front of the seat frame, forming a loop as shown.

18. Place case 2 arrow side down in the driver’s seat. Place the loops made in steps 16 and 17 above to the outside of the case. Tie case 2 to the driver’s seat back with a length of ½-inch tubular nylon webbing.

19. Run a length of ½-inch tubular nylon webbing though both of the loops made in steps 16 and 17 above. Draw the loops taut and tie the webbing using a trucker’s hitch.

Figure 4-24. Gun Laying Positioning System Rigged in M1056 Truck (continued)
Bend a 44- by 24-inch piece of honeycomb over the steering wheel and case 2. Tape the outside edges of the honeycomb. Tie the honeycomb to convenient points in the truck with type III nylon cord.

Figure 4-24. Gun Laying Positioning System Rigged in M1056 Truck (continued)
4-14. Use the procedures shown in Figures 4-25 and 4-26 to rig the Mechanic Shop Kit in a cargo/troop carrier-configured truck. The load shown weighs 980 pounds.

1. Pad loose tools, parts, and small items of equipment, and stow them in the permanently mounted toolboxes.
2. Drain all fuel from the generator. Be sure the generator is mounted securely to the load bed.
3. Close and lock all drawers and doors.

Figure 4-25. Mechanic Shop Kit Equipment Prepared in M998 Truck
4. Lay the sledgehammer and pry bars under the front cabinet. Cover them with the truck tarp and the camouflage net pole bag. Secure them with the straps provided.

5. Place the four oilcans in the bed cutouts, and secure them with the straps provided.

6. Place the camouflage net bag between the front cabinet and the oilcans. Secure the bag with the straps provided.

7. Tie the generator frame to the closest tiedown rings with ½-inch tubular nylon webbing.

8. Tie the engine lifting sling to the front tiedown ring with type III nylon cord. Pad the sling with cellulose wadding where it touches the toolboxes.

*Note:* If acetylene tanks are included, secure them to the right of the cabinet with the tiedown straps provided.

Figure 4-25. Mechanic Shop Kit Equipment Prepared in M998 Truck (continued)
① Tape the antenna sections together. Tie them to the left side rail in three places with type III nylon cord.

② Pass a 15-foot lashing around each side toolbox and around the second and third vertical side rail supports. Secure each lashing with a D-ring and a load binder.

**Note.** The lashing shown running across the cargo body over the oil cans is used to secure the body side boards.

③ Pass a 15-foot lashing through each rear tiedown ring and through its own D-ring.

④ Set a 10- by 12-inch piece of honeycomb on edge against the rear toolbox with a 12-inch side down.

⑤ Center a 12- by 5-inch piece of honeycomb on top to two 12- by 10-inch pieces. Set the stack against the honeycomb placed in step 4 above.

⑥ Set two 14- by 11-inch pieces of honeycomb on edge against the generator with the 14-inch sides down.

![Figure 4-26. Mechanic Shop Kit Equipment Secured in M998 Truck](image)
⑦ Close the tailgate.

⑧ Allow the vise to crush the honeycomb placed in steps 12 and 13. Be sure the honeycomb fully supports the vise.

⑨ Run a 15-foot lashing around the driver's seat support and through its own D-ring.

⑩ Run a 15-foot lashing through the opening behind the front passenger seat and up though the hole behind the B-pillar. Pass the lashing through its own D-ring.

Figure 4-26. Mechanic Shop Kit Equipment Secured in M998 Truck (continued)
11) Pass a 15-foot lashing through each tiedown ring behind the seats. Bring each lashing over the top of the tool cabinet, over the doors, and under the cabinet. Fasten each lashing with a D-ring and a load binder behind the cabinet.

Figure 4-26. Mechanic Shop Kit Equipment Secured in M998 (continued)
Place a 60- by 15 ½-inch piece of honeycomb over the top of the tool cabinet. Tape the front and rear edges of the honeycomb. Tie the honeycomb to the lashing below it with type III nylon cord.

Place a 16- by 22-inch piece of honeycomb over the generator.

Place three 46 ½- by 36-inch pieces of honeycomb between the two side toolboxes.

Place a 75 ½- by 36-inch piece of honeycomb over the toolboxes and the honeycomb placed in step 22 above. Tape the front and rear edges of the honeycomb.

Secure the lashing placed in step 17 and the right rear lashing together with two D-rings and a load binder.

Secure the lashing placed in step 18 and the left rear lashing together with two D-rings and a load binder.

Secure the tailgate closed with ½-inch tubular nylon webbing.

Figure 4-26. Mechanic Shop Kit Equipment Secured in M998 Truck (continued)
SECTION XIII: RIGGING DENTAL OPERATIVE FIELD IN M998 TRUCK

4-15. Use the procedures shown in Figures 4-27 through 4-33 to rig the dental operative field set in a cargo/troop carrier-configured truck. The dental operative field set consists of an X-ray unit, ultrasonic scaler, air compressor, light set, dental equipment cart, and dental chair. Each component fits into its own case. The load shown weighs 834 pounds.

1. Place the seat support rod in its bracket.
2. Cover the right half of the bottom of the box with cellulose wadding (not shown).
3. Place the wooden insert in the right side of the box. Secure the headrest and foot support in the insert with the fitting provided. Tighten the fitting with light pressure only.
4. Secure the timer unit with the strap provided.
5. Secure the scissor arm of the X-ray unit with the strap provided.
6. Tape the cap on the end of the X-ray unit.
7. Place the X-ray unit in the box as shown, and secure it with the straps provided.

Figure 4-27. Dental Operative Field X-Ray Set Rigged in M998 Truck
8) Place an 11- by 18 ½-inch piece of honeycomb over the timer unit. Crush the honeycomb to make it lie flat.

9) Fold the seat and place it over the honeycomb placed in step 8 above. Cut the honeycomb to allow for the knobs on the seat.

10) Secure the mounting rod in its bracket with the straps provided. Pass the rod with cellulose wadding where it touches the X-ray unit. Tape the cellulose wadding in place.

11) Secure the smaller mounting rod in the front of the box with the straps provided.

12) Place the protective aprons in the bottom of the box.

13) Fill the empty space in the box with honeycomb. Close and latch the box.

Figure 4-27. Dental Operative Field X-Ray Set Rigged in M998 Truck (continued)
① Pad the frame base and post assembly with cellulose wadding taped in place. Place them in the bottom of the box.

② Pad the bottom of the box with cellulose wadding.

③ Tape the toolbox and place it on the right side.

④ Place the waste container on the left side.

⑤ Place the control unit wires and hoses inside the control unit. Place the control unit in the box. Pad the control panel with cellulose wadding.

Figure 4-28. Dental Operative Field Set Toolbox and Control Unit Rigged in M998 Truck
⑥ Place the top on the control unit. Pad the top with cellulose wadding.
⑦ Place the tray on the right side of the control unit top.
⑧ Place the foam pad over the tray and control unit.
⑨ Close and latch the box.

Figure 4-28. Dental Operative Field Set Toolbox and Control Unit Rigged in M998 Truck
(continued)
Drain the air compressor and fold its cord and hose.
Latch the box.
Pad the light lens with cellulose wadding.
Close and latch the box (not shown).

Figure 4-29. Dental Operative Field Set Air Compressor Rigged in M998 Truck
① Wrap the chair foot lever with cellulose wadding. Tie it to the chair base with type III nylon cord.
② Fold the chair and stool. Secure them together with type III nylon cord.
③ Close and latch the box.
④ Be sure the scalar unit is surrounded by the foam padding provided. Close and latch the box.

Figure 4-30. Dental Operative Field Set Chair and Scalar Unit Rigged in M998
1. Form six 30-foot lashings according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5 4-20.102/TO 13C7-1-5. Run three lashings front to rear through the center, left, and right tiedown rings in the cargo bed.

2. Run two 30-foot lashings side to side through the rear and center tiedown rings.

3. Lay a 30-foot lashing side to side 12 inches from the front wall of the cargo bed.

4. Place one 36- by 80-inch piece, one 14 ½- by 80-inch piece, and two 15- by 30-inch pieces of honeycomb side by side to form one layer covering the cargo bed.

5. Place four 3- by 44-inch pieces

Figure 4-31. Dental Operative Field Set Cargo Area Prepared in M998 Truck
① Place the compressor box on the honeycomb strips in the left front corner.

② Set the dental equipment cart box next to the compressor. Place cellulose wadding between the boxes.

③ Place the scaler box next to the cart box. Place cellulose wadding between the boxes.

④ Place the light set box next to the right wall and the scaler box. Place honeycomb as filler between the scaler and light set boxes. Place honeycomb as filler between the light set box and the right wall.

⑤ Place the X-ray unit on the honeycomb strips on the left, flush with the rear edge of the honeycomb. Place honeycomb as filler between the X-ray and compressor boxes.

⑥ Place the chair box to the right flush with the rear edge of the honeycomb.

⑦ Place the camouflage net bag between the X-ray unit and the chair box.

Figure 4-32. Dental Operative Field Set Placed in Cargo Area in M998 Truck
① Secure the lashings placed in steps 32 and 33 on top of the load with D-rings and load binders.

② Secure the lashings placed in step 31 on top of the load with D-rings and load binders.

③ Install the body side boards as shown in Figure 2-13. The lashing supporting the body side boards is shown.

Figure 4-33. Dental Operative Field Set Secured in M998 Truck
Place the camouflage net pole bag across the boxes as shown. Secure it to convenient points with type III nylon cord.

2. Fold the truck covers over the truck doors. Place them on top of the load as shown.

3. Place the bows on the right side as shown. Tie them together and to convenient points with type III nylon cord.

4. Place 1 36- by 96-inch piece of honeycomb over the load.

5. Position a 15-foot lashing behind each front seat as shown in Figure 4-13, steps 17 and 18 (not shown).

6. Pass the left lashing up over the load and through the towing pintle.

7. Pass the right lashing up over the load. Secure it to the left lashing with two D-rings and a load binder.

8. Tie a length of ½-inch tubular nylon webbing over the honeycomb. Secure the webbing to the side rails.

Figure 4-33. Dental Operative Field Set Secured in M998 Truck (continued)
4-16. Use the procedures shown in Figure 4-39 to rig the Viper generator system in HMMWV-series trucks. The Viper consists of an under-the-hood engine-driven generator, control switches on the truck’s instrument panel, and control boxes located under the rear seat. The generator and instrument panel switches require no preparation. Prepare the control boxes as shown in Figure 4-39.

1. Pad the spaces around the control boxes with cellulose wadding.
2. Place full sheets of cellulose wadding over the control boxes to fill the space.
3. Fold the rear seat over the control boxes and latch them in place.

Figure 4-39. Viper Generator System Control Boxes Prepared
SECTION XV: RIGGING DRIVER VISION ENHANCER IN HMMV-SERIES TRUCK

4-17. Use the procedures shown in Figure 4-40 to rig the driver vision enhancer in HMMWV-series trucks. The optical components fit into their own padded case. The rest of the system fits into a rack mounted behind the driver’s seat.

1. Remove the driver vision enhancer from its rack. (not shown) Stow the removable components in their padded case.
2. Tie the box to the seat back with a length of type III nylon cord.
3. Form a loop in an 18-inch length of type III nylon cord. Pass it under both seat latches and tape the latches.
4. Form a loop in a 30-inch length of type III nylon cord. Pass the cord around the seat back.
5. Tie the loops made in steps 3 and 4 to each other with type III nylon cord.

Figure 4-40. Driver Vision Enhancer Rigged in Cargo/Troop Carrier
6) Fit a 24- by 27-inch piece of honeycomb on the hopper step, behind the driver's seat, and against the left side of the hopper.

7) Fit a 21- by 3-inch pieces of honeycomb over the base piece in the front.

8) Fit an 11- by 9-inch piece of honeycomb in the space beside the honeycomb placed in step 7.

9) Fit an 11- by 8-inch piece of honeycomb to the rear of the piece placed in step 8.

10) Fit a 10- by 7-inch piece of honeycomb under the round portion of the plate.

11) Fit a 3- by 26-inch piece of honeycomb on the right side.

12) Pad the top of the rack and the fixture on the right side with cellulose wadding taped in place.

13) Tie the honeycomb placed in steps 6 through 12 above with type III nylon cord. Route the cord under the hopper step and over the rack.

Figure 4-40. Driver Vision Enhancer Rigged in Cargo/Troop Carrier (continued)
14 Make an 8 ½- by 11 ½-inch cutout in a 27- by 24-inch piece of honeycomb. Place the honeycomb over the rack with the cutout clearing the round mount.

15 Tape the upper edges of the honeycomb. Tie the honeycomb cover the rack with ½-inch tubular nylon webbing. Route the webbing under the hopper step.

Figure 4-40. Driver Vision Enhancer Rigged in Cargo/Troop Carrier (continued)
4-18. The AN/VAS-5 Driver Vision Enhancer can be rigged on the following model HMMWV’s: M966, M966A1, M1025, M1025A1, M1025A2, M1026 modified, M1026A1, M1121 and M1151. Use the procedures shown in Figure 4-18 to rig the ANVAS-5 Driver Vision Enhancer mounted on HMMWV-series trucks.

① Pad the driver vision enhancer mounting bracket with cellulose wadding and tape in place.

Figure 4-41. Driver Vision Enhancer Rigged on Hard Top HMMWV
2) Secure the display control module bracket to the turret ring with type III nylon cord.

Figure 4-41. Driver Vision Enhancer Rigged on Hard Top HMMWV (continued)
Pad the pan and tilt module with cellulose wadding and tape in place.

Figure 4-41. Driver Vision Enhancer Rigged on Hard Top HMMWV (continued)
Place the transit case in the passenger seat and secure to the seat with \( \frac{1}{2} \)-inch tubular nylon webbing.

Figure 4-41. Driver Vision Enhancer Rigged on Hard Top HMMWV (continued)
5 Make a cut out for the driver vision enhancer mounting bracket on the honeycomb placed on the windshield.

Figure 4-41. Driver Vision Enhancer Rigged on Hard Top HMMWV (continued)
4-19. Use the procedures shown in Figure 4-34 to rig the soft top installation kit and accompanying equipment in a cargo/troop carrier-configured truck. An additional 300 pounds must be added to the items shown to meet the minimum weight requirement of 800 pounds for the accompanying load. Three boxes of 105-mm ammunition are shown here, but other items weighing the same or more may be used.

1. Remove the front antenna mount and uprights from the front of the truck cargo bed. Detach the uprights from the antenna mount and replace the bolts in the sides of the truck and in the mount.

Figure 4-34. Soft Top Installation Kit Rigged in M998 Truck
(2) Remove the canvas top and white liner. Roll the liner inside the top.
(3) Remove the cab cover, doors, and bows.
(4) Remove the overhead light and store it in its case. Leave the light cable attached to the light bow, and pad and tape the cable ends.

Figure 4-34. Soft Top Installation Kit Rigged in M998 Truck (continued)
⑤ Remove the front workstation guard. Replace the screws in the guard.

⑥ Remove the workstation data module from its bracket, then remove the bracket.

⑦ Remove the stairs, stair rail, and tailgate gap cover.

⑧ Remove the fire extinguisher from the left side guard.

⑨ Remove the power control module from its bracket from the right side guard.

⑩ Remove the center canvas support bow. Remove the forward support bow. Have an assistant support the side guard on each side as the rear support bow is removed. Detach the side guards from the rear support bow.

Figure 4-34. Soft Top Installation Kit Rigged in M998 Truck (continued)
1. Remove the Z-bracket antenna mounts. Leave the nuts and bolts in the mounts.
2. Secure the cables to the top of the right side rail with the straps provided.
3. Remove the heater from its storage box, pad it with cellulose wadding, and tie it to the driver’s seat frame with type III nylon cord.

Figure 4-35. Soft Top Installation Kit Rigged in Cab of M998 Truck
4. Cover the right side station rack with two pieces of felt cut to fit. Place the power control module on the felt and tie it to the rack with ½-inch tubular nylon webbing.

5. Cover the power cable in the floor with honeycomb cut to fit. Pad the truck mirrors, place them on the honeycomb, and fill the remaining area with honeycomb. Close the door and tape it shut.

6. Place the toolboxes under the left side station rack and tie them in place with type III nylon cord.

7. Secure the main power cable between the front seats with type III nylon cord.

Figure 4-35. Soft Top Installation Kit Rigged in Cab of M998 Truck (continued)
① Secure the left side worktables with type III nylon cord.

② Pad both antenna brackets with cellulose wadding taped in place. Roll loose cables and place them with the antenna brackets in the left side storage box. Fill empty space with honeycomb.

③ Pad the communications module, work station data module, their mounting brackets, and the fire extinguisher with cellulose wadding taped in place. Place these items in the right side storage box. Fill empty space with honeycomb.

④ Close and secure the doors of both storage compartments (not shown).

**Figure 4-36. Soft Top Installation Kit Equipment Stowed in M998 Truck**
① Lay a 15-foot lashing from side to side 18 inches from the rear edge of the truck bed.
② Place one 15-foot lashing in the right rear tiedown ring, and another in the left rear tiedown ring.
③ Place three 105-mm ammunition boxes or a similarly configured load weighing at least 300 pounds over the lashing placed in step 22.
④ Place a 36-inch by 36-inch piece of ¾-inch plywood over the load.
⑤ Secure the lashing placed in step 22 over the plywood.
⑥ Pass the lashing in the left rear tiedown ring through the right front tiedown ring. Secure the lashing over the load. Pass the lashing in the right rear tiedown ring through the left front tiedown ring. Secure the lashing over the load.

Figure 4-37. Soft Top Installation Kit Ammunition Placed and Secured in M998 Truck
① Place three 24- by 24-inch pieces of honeycomb between the left and right work station racks.
② Lay the folded cab and cargo body covers and the white liner in front of the ammunition boxes and tie them to convenient points with type III nylon cord.
③ Place the folding chairs and stair handrail against the left cabinet and tie them to convenient points with type III nylon cord.
④ Place the stairs against the right cabinet, and tie them to convenient points with type III nylon cord.
⑤ Center the front antenna mount cross bracket over the honeycomb placed in step 28 and the ammunition boxes. Secure the bracket to tiedown rings and to the racks with type III nylon cord.

Figure 4-38. Soft Top Installation Kit Equipment Secured in M998 Truck
6. Tie the front antenna mounts and the tailgate gap guard together and to convenient points to the right of the antenna cross bracket with type III nylon cord.

7. Place the light set box between the left station rack and the antenna cross bracket. Secure the box to the right rear tiedown rings and to other convenient points with type III nylon cord.

8. Place the side guards over the antenna cross bracket, and tie it to convenient points with type III nylon cord.

9. Place the cab top bow with the cross piece next to the light box, and tie it to convenient points with type III nylon cord.

10. Center and invert the front work station guard over the load. Place the cab doors within the work station guard, and tie these items to each other and to convenient points with type III nylon cord.

11. Place the cargo body canvas bows across the cargo area and secure them to the side rails with type III nylon cord.

12. Close the tailgate and secure it with ½-inch nylon webbing. (not shown)

13. Cover the load with cotton duck cloth tied in place with type III nylon cord.

Figure 4-38. Soft Top Installation Kit Equipment Secured in M998 Truck (continued)
Chapter 5

Rigging Two HMMWV Trucks on a 32-Foot Platform for Low-Velocity Airdrop

DESCRIPTION OF LOAD

5-1. The unrigged M998 cargo/troop carriers are described in Chapter 1. Two HMMWV trucks are rigged on a 32-foot type V platform for low-velocity airdrop. An accompanying load is rigged on the platform. The load requires five G-11 cargo parachutes.

The following trucks can be rigged using the procedures given in this chapter: the M998A1, M1038 and M1038A1, M1037 and M1037 modified, M1042, M1097, M1097A, and the M1097A2.

PREPARING PLATFORM

5-2. Prepare a 32-foot, type V airdrop platform according to TM 10-1670-268-20&P/TO 13C7-52-22. Install two tandem links and eight suspension links to the platform as shown in Figure 5-1. Attach and number 44 clevis assemblies as shown in Figure 5-1.
Steps:

1. Install a tandem link on the front of each platform side rail using holes 1, 2, and 3.
2. Install a suspension link to each platform side rail using holes 6, 7, and 8.
3. Install a suspension link to each platform side rail using holes 26, 27, and 28.
4. Install a suspension link to each platform side rail using holes 37, 38, and 39.
5. Install a suspension link to each platform side rail using holes 57, 58, and 59.
6. Install a clevis on bushing 1 of each front tandem link.
7. Install a clevis on bushing 3 and 4 of each second suspension link.
8. Install a clevis on bushing 1 and 2 of each third suspension link.
9. Install a clevis on bushing 2 of each fourth suspension link.
10. Starting at the front of the platform, install clevises on each platform side rail using the bushings bolted on holes 11, 12, 15, 30, 31, 34, 35, 50, 53, 54, 63, and 64.
11. Install a clevis on bushings 14 and 51 in an inverted position. Install clevises on bushings 14A and 51A in the normal position. Bolt an additional clevis to each of these clevises.
12. Starting at the front of the platform, number the clevises bolted to the right side of the platform from 1 through 22, and those bolted to the left side from 1A through 22A. Number the clevises on the 14th and 51st bushings 4 and 4A, and 17 and 17A respectively. Number the clevises bolted to 4 and 4A as 5 and 5A. The clevises bolted to 17 and 17A are to be numbered 16 and 16A.
13. Label the tiedown rings according to TM 4-48.02/MCRP 4-11.3J/ NAVSEA SS400-AB-MMO-010 REV 1/TO13C7-1-5.

Figure 5-1. Platform Prepared
PREPARING AND POSITIONING HONEYCOMB STACKS

5-3. Prepare honeycomb stacks 1, 3, 5, and 7 as shown in Figure 1-3. Prepare honeycomb stacks 2 and 6 as shown in Figure 1-4. Position the stacks on the platform as shown in Figure 5-2.

Notes. 1. All measurements are given in inches.
2. This drawing is not drawn to scale.
3. Honeycomb stack 4 consists of 2 full sheets of honeycomb stacked flush.

<table>
<thead>
<tr>
<th>Stack Number</th>
<th>Position on Platform</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Place stack: 7 inches from the front edge of the platform and centered.</td>
</tr>
<tr>
<td>2</td>
<td>66 inches from the front edge of the platform and centered. Face the cutout to the front.</td>
</tr>
<tr>
<td>3</td>
<td>137 inches from the front edge of the platform and centered.</td>
</tr>
<tr>
<td>4</td>
<td>172 inches from the front edge of the platform centered.</td>
</tr>
<tr>
<td>5</td>
<td>219 inches from the front edge of the platform and centered.</td>
</tr>
<tr>
<td>6</td>
<td>290 inches from the front edge of the platform and centered. Face the cutout to the rear.</td>
</tr>
<tr>
<td>7</td>
<td>356 inches from the front edge of the platform and centered.</td>
</tr>
</tbody>
</table>

Figure 5-2. Honeycomb Stacks Positioned on Platform
PLACING AND SECURING ACCOMPANYING LOAD

5-4. Place the ammunition boxes on stack 4, place a plywood cove, lash the boxes together (step 4), and construct two end boards as shown in Figure 5-3. Lash the accompanying load and endboards to the platform as shown in Figure 5-4.

---

*Note.* Adapt these procedures to accommodate other accompanying loads.

---

1. Center two 30-foot lashings 8 inches from the front and rear edges of stack 4.
2. Center 30 boxes of 20-mm ammunition on stack 4 over the lashings.

*Figure 5-3. Ammunition Boxes Placed and Secured*
Notes. 1. All measurements are given in inches.
   2. This drawing is not drawn to scale.

3 Place a ¾- by 36- by 82-inch piece of plywood flush over the ammunition boxes.
4 Secure the 30-foot lashings placed in step 1 over the ammunition boxes.
5 Construct two endboards from ¾- by 20- by 88-inch plywood. Place an endboard at each end of
   the stack of boxes (shown in Figure 5-4).

Figure 5-3. Ammunition Boxes Placed and Secured (continued)
<table>
<thead>
<tr>
<th>Lashing Number</th>
<th>Tiedown Clevis Number</th>
<th>Instructions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>8</td>
<td>Pass lashing: Through clevis 8, through its own D-ring, and through the upper slot in the rear endboard.</td>
</tr>
<tr>
<td>2</td>
<td>8A</td>
<td>Through clevis 8A, through its own D-ring, and through the upper slot in the rear endboard. Secure lashings 1 and 2 together at the rear with two D-rings and a load binder.</td>
</tr>
<tr>
<td>3</td>
<td>9</td>
<td>Through clevis 9, through its own D-ring, and through the lower slot in the rear endboard.</td>
</tr>
<tr>
<td>4</td>
<td>9A</td>
<td>Through clevis 9A, through its own D-ring, and through the lower slot in the rear endboard. Secure lashings 3 and 4 together at the rear with two D-rings and a load binder.</td>
</tr>
<tr>
<td>5</td>
<td>13</td>
<td>Through clevis 13, through its own D-ring, and through the upper slot in the front endboard.</td>
</tr>
<tr>
<td>6</td>
<td>13A</td>
<td>Through clevis 13A, through its own D-ring, and through the upper slot in the front endboard. Secure lashings 5 and 6 together at the front with two D-rings and a load binder.</td>
</tr>
<tr>
<td>7</td>
<td>12</td>
<td>Through clevis 12, through its own D-ring, and through the lower slot in the front endboard.</td>
</tr>
<tr>
<td>8</td>
<td>12A</td>
<td>Through clevis 12A, through its own D-ring, and through the lower slot in the front endboard. Secure lashings 7 and 8 together at the front with two D-rings and a load binder.</td>
</tr>
</tbody>
</table>

Figure 5-4. Ammunition and Endboards Lashed to Platform
### Lashing Instructions

<table>
<thead>
<tr>
<th>Lashing Number</th>
<th>Tiedown Clevis Number</th>
<th>Instructions</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>A8</td>
<td>Pass lashing: Through deck tiedown ring A8 and through its own D-ring.</td>
</tr>
<tr>
<td>10</td>
<td>A10</td>
<td>Through deck tiedown ring A10 and through its own D-ring. Secure lashings 9 and 10 together on top of the boxes with two D-rings and a load binder.</td>
</tr>
<tr>
<td>11</td>
<td>B8</td>
<td>Through deck tiedown ring B8 and through its own D-ring.</td>
</tr>
<tr>
<td>12</td>
<td>B10</td>
<td>Through deck tiedown ring B10 and through its own D-ring. Secure lashings 11 and 12 together on top of the boxes with two D-rings and a load binder.</td>
</tr>
</tbody>
</table>

Figure 5-4. Ammunition and Endboards Lashed to Platform (continued)
INSTALLING OPTIONAL DRIVE-OFF AIDS ON PLATFORM

5-5. Install the operation drive-off aids in the direction in which the truck is to be driven off the platform as shown in Figure 5-5, and according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/ NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5.

1. Install the drive-off aids for the front truck using a length of type V nylon webbing tied to the second bushing of the tandem link and the nearest tiedown rings. Tie the knot as shown in TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5.

2. Install the drive-off aids for the rear truck to tiedown rings A16 and D16 using type V clevises as shown.

Figure 5-5. Drive-off Aids Installed on Platform
PREPARING AND LOADING TRUCKS

5-6. Prepare and load the trucks as described below:
- Prepare both trucks according to the preparation procedures in Chapter 1 of this manual.
- Omit step 6, Figure 1-10 for both trucks.
- Omit the parachute release platform for the front truck (Figure 1-13, step 1).
- Prepare the parachute release platform and place it on the rear truck as shown in Figure 5-6.
- Use or adapt the procedures in Figure 1-14 of this manual to rig loads in the trucks. For this load, the trucks may be left empty.

Glue as many pieces of 36-by 24-inch honeycomb flush together as necessary to bring the honeycomb to 3 inches below the height of the B-pillar.

Place a full sheet of honeycomb flush over the stack, extending it to the rear of the truck. Tie all the honeycomb to convenient points on the load with type III nylon cord. Tape the honeycomb where the cord passes over it.

Note. It may be necessary to level the accompanying load to allow for the parachute release platform.

Figure 5-6. Parachute Release Platform Installed on Rear Truck
LIFTING AND POSITIONING TRUCK AND INSTALLING OPTIONAL DRIVE-OFF AIDS

5-7. Install the lifting slings as shown in Figure 1-16 of this manual. Position the trucks on the platform as shown in Figure 5-7 below. Attach the optional drive-off aids to the wheels of the trucks according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5, and as shown in Figure 1-17 of this manual.

1. Face the front truck toward the front of the platform. Be sure the suspension cross members rest squarely on stacks 1 and 3. Be sure that the frame cross member rests squarely on the 6-inch part of the honeycomb at the rear of stack 2.

2. Face the rear truck toward the rear of the platform. Be sure the suspension cross members rest squarely on stacks 5 and 7. Be sure that the frame cross member rests squarely on the 6-inch part of the honeycomb at the front of stack 6.

Figure 5-7. Lifting Slings Installed and Trucks Positioned
LASHING TRUCKS

5-8. Lash the trucks to the platform as shown in Figure 5-8 through 5-11, and according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5.

Note. Right and left in this figure refer to the right and left sides of the trucks.

<table>
<thead>
<tr>
<th>Lashing Number</th>
<th>Tiedown Clevis Number</th>
<th>Instructions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>Pass lashing: Through right lifting shackle on front bumper.</td>
</tr>
<tr>
<td>2</td>
<td>1A</td>
<td>Through left lifting shackle on front bumper.</td>
</tr>
<tr>
<td>3</td>
<td>2</td>
<td>Around right front lower control arm.</td>
</tr>
<tr>
<td>4</td>
<td>2A</td>
<td>Around right front lower control arm.</td>
</tr>
<tr>
<td>5</td>
<td>3</td>
<td>Through tiedown bracket behind right front coil spring.</td>
</tr>
<tr>
<td>6</td>
<td>3A</td>
<td>Through tiedown bracket behind right front coil spring.</td>
</tr>
</tbody>
</table>

Figure 5-8. Lashings 1 Through 6 Installed.
<table>
<thead>
<tr>
<th>Lashing Number</th>
<th>Tiedown Clevis Number</th>
<th>Instructions</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>4 and 4A</td>
<td>Pass lashing: Pass a 15-foot lashing through clevis 4A and through its own D-ring. Pass the lashing through the hole in stack 2. Attach the lashing to clevis 4 with a load binder.</td>
</tr>
<tr>
<td>8</td>
<td>5</td>
<td>Around the right upper control arm.</td>
</tr>
<tr>
<td>9</td>
<td>5A</td>
<td>Around the left upper control arm.</td>
</tr>
<tr>
<td>10</td>
<td>6</td>
<td>Around the right lower control arm.</td>
</tr>
<tr>
<td>11</td>
<td>6A</td>
<td>Around the left lower control arm.</td>
</tr>
<tr>
<td>12</td>
<td>7</td>
<td>Through the right rear tiedown shackle.</td>
</tr>
<tr>
<td>13</td>
<td>7A</td>
<td>Through the left rear tiedown shackle.</td>
</tr>
<tr>
<td>14</td>
<td>10</td>
<td>Through the tiedown bracket behind the right rear coil spring.</td>
</tr>
<tr>
<td>15</td>
<td>10A</td>
<td>Through the tiedown bracket behind the left rear coil spring.</td>
</tr>
</tbody>
</table>

Figure 5-9. Lashings 7 Through 15 Installed.
<table>
<thead>
<tr>
<th>Lashing Number</th>
<th>Tiedown Clevis Number</th>
<th>Instructions</th>
</tr>
</thead>
<tbody>
<tr>
<td>16</td>
<td>11</td>
<td>Pass lashing: Through tiedown bracket behind left rear coil spring.</td>
</tr>
<tr>
<td>17</td>
<td>11A</td>
<td>Through tiedown bracket behind right rear coil spring.</td>
</tr>
<tr>
<td>18</td>
<td>14</td>
<td>Through left lifting shackle on rear bumper.</td>
</tr>
<tr>
<td>19</td>
<td>14A</td>
<td>Through right lifting shackle on rear bumper.</td>
</tr>
<tr>
<td>20</td>
<td>15</td>
<td>Around left lower control arm.</td>
</tr>
<tr>
<td>21</td>
<td>15A</td>
<td>Around right lower control arm.</td>
</tr>
<tr>
<td>22</td>
<td>16</td>
<td>Around left upper control arm.</td>
</tr>
<tr>
<td>23</td>
<td>16A</td>
<td>Around right upper control arm.</td>
</tr>
<tr>
<td>24</td>
<td>17 and 17A</td>
<td>Pass a 15-foot lashing through clevis 17A and through its own D-ring. Pass the lashing through the hole in stack 6. Attach the lashing to clevis 17 with a load binder.</td>
</tr>
</tbody>
</table>

Figure 5-10. Lashings 16 Through 24 Installed
### Lashing Number, Tiedown Clevis Number, and Instructions for Lashings 25 Through 30

<table>
<thead>
<tr>
<th>Lashing Number</th>
<th>Tiedown Clevis Number</th>
<th>Instructions</th>
</tr>
</thead>
<tbody>
<tr>
<td>25</td>
<td>18</td>
<td>Pass lashing: Through tiedown bracket behind left front coil spring.</td>
</tr>
<tr>
<td>26</td>
<td>18A</td>
<td>Through tiedown bracket behind right front coil spring.</td>
</tr>
<tr>
<td>27</td>
<td>19</td>
<td>Around left front lower control arm.</td>
</tr>
<tr>
<td>28</td>
<td>19A</td>
<td>Around right front lower control arm.</td>
</tr>
<tr>
<td>29</td>
<td>22</td>
<td>Through left lifting shackle on front bumper.</td>
</tr>
<tr>
<td>30</td>
<td>22A</td>
<td>Through right lifting shackle on front bumper.</td>
</tr>
</tbody>
</table>

**Figure 5-11. Lashings 25 Through 30 Installed**
INSTALLING AND SAFETY TIEING SUSPENSION SLINGS

5-9. Install the suspension slings according to TM 4-48.02/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5, and as shown in Figure 5-12. Pad and safety tie the suspension slings as shown in Figure 5-13.

1. Attach an 11-foot (4-loop), type XXVI nylon webbing suspension sling to each first suspension link with a large clevis.
2. Attach a 20-foot (4-loop), type XXVI nylon webbing suspension sling to each fourth suspension link with a large clevis.
3. Attach a 3-foot (4-loop), type XXVI nylon webbing sling to each second and third suspension link with a large clevis.
4. Place the 3-foot slings installed in step 3 above in the bell of a large clevis, one clevis per platform side.
5. Route a 20-foot (2-loop), type XXVI nylon webbing sling around one spool of a three-point link. Place both end loops in the bolt of the large clevis installed in step 4 above. Repeat for the other side of the load.
6. Place a 3 ¾-inch two-point link in the end loop of each front suspension sling.
7. Route an 11-foot (2-loop), type XXVI nylon webbing sling around one spool of the three-point link placed in step 5 above so that a free spool remains at the top of the link. Place both end loops in the remaining spool of the two-point link installed in step 6 above. Repeat for the other side of the load.
8. Join the three-point link to the crane hook with a 3-foot (4-loop) type XXVI nylon sling. Place the rear suspension slings in the crane hook. Repeat for the other side of the load.

Figure 5-12. Suspension Slings Installed
① Make the modified deadman tie on the front and rear suspension slings using the instructions in TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5.

② Wrap all links with felt taped in place (not shown).

③ Wrap the front suspension slings between 50 and 104 inches along the slings with felt taped in place. Secure the slings to the truck sideboards with type III nylon cord (not shown).

④ Wrap the rear suspension slings between 47 and 97 inches along the slings with felt taped in place. Secure the slings to the truck sideboards with type III nylon cord.

⑤ Pad both truck B-pillars with cellulose wadding and tape in place.

⑥ Support the large clevises on both center suspension slings with ½-inch tubular nylon webbing tied to convenient points on the trucks.

⑦ Tie an additional length of ½-inch tubular nylon webbing between convenient points on the two trucks to safety the suspension slings to the outside.

Figure 5-13. Suspension Slings Padded and Safety Tied
BUILDING AND INSTALLING PARACHUTE STOWAGE PLATFORM

5-10. Build and install the parachute stowage platform as shown in Figure 5-14.

Notes. 1. All measurements are given in inches.
2. This drawing is not drawn to scale.

① Construct the parachute stowage platform using a 96- by 48-inch piece of ¾-inch plywood and 2- by 6- by 85 inch and 2- by 6- by 48 inch lumber as shown. Glue two 85-by 12-inch pieces of honeycomb to the underside flush against the outside piece of 2- by 6-inch lumber.

② Place the parachute stowage platform on the hood of the rear truck with the honeycomb placed in step 1 above facing the rear.

③ Lash the two rear holes in the platform to clevises 21 and 21A.

④ Lash the two front holes in the platform to clevises 20 and 20A.

Figure 5-14. Parachute Stowage Platform Constructed and Installed
5-11. Use five G-11 parachutes on this load. Prepare and stow the cargo parachutes as shown in Figure 5-15.

① Prepare five G-11 cargo parachutes and stow them on the parachute stowage platform. Prepare and stow the parachutes according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5.

② Tie the rear parachute restraint strap to the fourth bushing on the fourth suspension link on each side.

③ Tie the front parachute restraint strap to the first bushing on the fourth suspension link on each side.

Figure 5-15. Cargo Parachutes Stowed
INSTALLING PARACHUTE RELEASE

5-12. Prepare and install an M-2 cargo-parachute release according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/ NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5, and as shown in Figure 5-16.

1. Place the M-2 release on the parachute release platform. Tie it to convenient points on the load with type III nylon cord.

Figure 5-16. M-2 Cargo Parachute Release Installed
2 Tie the riser extensions in four places, equally spaced, with type I, ¼-inch cotton webbing.

Figure 5-16. M-2 Cargo Parachute Release Installed (continued)
INSTALLING EXTRACTION SYSTEM

5-13. Install the EFTC according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/ NAVSEA SS400-AB-MM0-010 REV 1/TO 13C7-1-5, and as shown in Figure 5-17.

1. Install the extraction force transfer coupling (EFTC) mounting brackets in the rear mounting holes in the left platform rail.

2. Attach a 28-foot release cable to the actuator. Attach the actuator to the EFTC mounting brackets.

3. Install the latch assembly to the extraction bracket. Attach the release cable to the latch assembly.

4. Safety tie the cable to tiedown ring D16 and to other points as needed with type I, 1 ¼-inch cotton webbing.

5. Install a 9-foot (2-loop), type XXVI nylon webbing deployment line on the load.

Figure 5-17. Extraction Force Transfer Coupling (EFTC) Installed
INSTALLING PROVISIONS FOR EMERGENCY RESTRAINTS

5-14. Select and install provisions for emergency restraint according to the emergency aft restraint requirements table in TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/ NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5.

PLACING EXTRACTION PARACHUTE

5-15. Select the extraction parachute and extraction line needed using the extraction line requirements table in TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/ NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5. Rig the extraction line in an extraction line bag according to TM 10-1670-286-20/TO 13C5-2-41. Place the extraction parachute and extraction line on the load for installation in the aircraft.

MARKING RIGGED LOAD

5-16. Mark the rigged load according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5 and as shown in Figure 5-18. Complete Shipper’s Declaration for Dangerous Goods according to AFMAN 24-204/TM 38-250/NAVSUP PUB505/MCO P4030.19H/DLAI 4145.3. If the load varies from the one shown, the weight, height, CB, tip-off curve, and parachute requirements must be recomputed.

EQUIPMENT REQUIRED

5-17. Use the equipment listed in Table 5-1 to rig this load. The equipment for rigging an accompanying load in the trucks in NOT given in Table 5-1.
CAUTION
Make the final rigger inspection required by AR 59-4 (using DD Form 1748 Joint Airdrop Inspection Record (Platforms) or appropriate DD Form 1748 series).

RIGGED LOAD DATA

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weight</td>
<td>21,200 pounds</td>
</tr>
<tr>
<td>Maximum Load Allowed</td>
<td>26,250 pounds</td>
</tr>
<tr>
<td>Height With Five G-11 Parachute</td>
<td>96 inches</td>
</tr>
<tr>
<td>Width</td>
<td>108 inches</td>
</tr>
<tr>
<td>Length</td>
<td>409 inches</td>
</tr>
<tr>
<td>Overhang: Front (vehicle)</td>
<td>0 inches</td>
</tr>
<tr>
<td>Rear (extraction force transfer coupling)</td>
<td>18 inches</td>
</tr>
<tr>
<td>Center of Balance (CB) (from front edge of platform)</td>
<td>207 inches</td>
</tr>
</tbody>
</table>

Figure 5-18. Two M998 Trucks and Ammunition Rigged on a 32-Foot Type V Platform
Table 5-1. Equipment Required for Rigging Two M998 Trucks and Ammunition for Low-Velocity Airdrop

<table>
<thead>
<tr>
<th>National Stock Number</th>
<th>Item</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>8040-00-273-8713</td>
<td>Adhesive, paste, 1-gallon</td>
<td>As required</td>
</tr>
<tr>
<td>4030-00-090-5354</td>
<td>Clevis, suspension, 1-in (large)</td>
<td>18</td>
</tr>
<tr>
<td>4020-00-240-2146</td>
<td>Cord, nylon type III, 550-lb</td>
<td>As required</td>
</tr>
<tr>
<td>1670-01-326-7309</td>
<td>Coupling assembly, airdrop, extraction force transfer with</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>cable, 28-ft</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cover:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Clevis, large</td>
<td>5</td>
</tr>
<tr>
<td>1670-00-360-0328</td>
<td>Cushioning material, packaging, cellulose wadding</td>
<td>As required</td>
</tr>
<tr>
<td>8135-00-664-6958</td>
<td>Felt, ½-in think</td>
<td>As required</td>
</tr>
<tr>
<td>8305-00-958-3685</td>
<td>Leaf, extraction line (line bag)</td>
<td>2</td>
</tr>
<tr>
<td>1670-01-183-2678</td>
<td>Line, drogue (for C-17)</td>
<td></td>
</tr>
<tr>
<td>1670-01-062-6313</td>
<td>Line, extraction:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>For C-130: 60-ft (3-loop), type XXVI</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>For C-141: 140-ft (3-loop), type XXVI</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>For C-5:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>60-ft, (3-loop), type XXVI and</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>140-ft, (3-loop), type XXVI</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>For C-17:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>140-ft (3-loop), type XXVI</td>
<td>1</td>
</tr>
<tr>
<td>1670-01-107-7651</td>
<td>Link Assembly:</td>
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</tr>
<tr>
<td></td>
<td>Two-point:</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Bolt, 1-in diam, 4-in long</td>
<td>(6)</td>
</tr>
<tr>
<td></td>
<td>Nut, 1-in, hexagonal</td>
<td>(6)</td>
</tr>
<tr>
<td></td>
<td>Plate, side, 3 ½-in</td>
<td>(6)</td>
</tr>
<tr>
<td></td>
<td>Spacer, large</td>
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</tr>
<tr>
<td>5306-00-435-8994</td>
<td>Lumber:</td>
<td></td>
</tr>
<tr>
<td>5310-00-232-5165</td>
<td>2- by 6-in</td>
<td>As required</td>
</tr>
<tr>
<td>1670-00-003-1953</td>
<td>4- by 4-in</td>
<td>As required</td>
</tr>
<tr>
<td>5365-00-007-3414</td>
<td>Nail, steel wire, 8d</td>
<td>As required</td>
</tr>
<tr>
<td>5510-00-220-6448</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5510-00-220-6274</td>
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</tr>
<tr>
<td>5315-00-010-4659</td>
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### Table 5-1. Equipment Required for Rigging Two M998 Trucks and Ammunition for Low-Velocity Airdrop (continued)

<table>
<thead>
<tr>
<th>National Stock Number</th>
<th>Item</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1670-00-753-3928</td>
<td>Pad, energy-dissipating (honeycomb)</td>
<td>28 Sheets</td>
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<tr>
<td></td>
<td>3- by 36- by 96-in</td>
<td></td>
</tr>
<tr>
<td>1670-01-016-7841</td>
<td>Parachute:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cargo:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>G-11B</td>
<td>5</td>
</tr>
<tr>
<td>1670-00-040-8135</td>
<td>Cargo extraction:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>28-ft (Add H-block for use with C-17 aircraft)</td>
<td>1</td>
</tr>
<tr>
<td>1670-01-063-3715</td>
<td>Drogue (for C-17)</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>15-ft</td>
<td></td>
</tr>
<tr>
<td>1670-01-353-8425</td>
<td>Platform, airdrop, type V, 32’</td>
<td></td>
</tr>
<tr>
<td>1670-01-162-2372</td>
<td>Bracket assembly, extraction force transfer coupling</td>
<td>(1)</td>
</tr>
<tr>
<td>1670-01-162-2376</td>
<td>Clevis assembly, type V</td>
<td>(46)</td>
</tr>
<tr>
<td>1670-01-247-2389</td>
<td>Bracket assembly, extraction</td>
<td>(1)</td>
</tr>
<tr>
<td>1670-01-162-2381</td>
<td>Link, suspension bracket, type V</td>
<td>(8)</td>
</tr>
<tr>
<td>5530-00-128-4981</td>
<td>Plywood, ⅜-in</td>
<td>7</td>
</tr>
<tr>
<td>1670-01-097-8817</td>
<td>Release, cargo parachute, M-2</td>
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</tr>
<tr>
<td></td>
<td>Sling, cargo, airdrop</td>
<td></td>
</tr>
<tr>
<td></td>
<td>For suspension:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3-ft (4-loop), type XXVI nylon webbing</td>
<td>6</td>
</tr>
<tr>
<td>1670-01-062-6306</td>
<td>11-ft (2-loop), type XXVI nylon webbing</td>
<td>2</td>
</tr>
<tr>
<td>1670-01-063-7760</td>
<td>11-ft (4-loop), type XXVI nylon webbing</td>
<td>2</td>
</tr>
<tr>
<td>1670-01-062-6302</td>
<td>20-ft (2-loop), type XXVI nylon webbing</td>
<td>2</td>
</tr>
<tr>
<td>1670-01-064-4453</td>
<td>20-ft (4-loop), type XXVI nylon webbing</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>For lifting:</td>
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</tr>
<tr>
<td></td>
<td>9-ft (2-loop), type XXVI nylon webbing</td>
<td>2</td>
</tr>
<tr>
<td>1670-01-062-6304</td>
<td>12-ft (2-loop), type XXVI nylon webbing</td>
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<tr>
<td>1670-01-062-6303</td>
<td>For deployment:</td>
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</tr>
<tr>
<td></td>
<td>9-ft (2-loop), type XXVI nylon webbing</td>
<td>1</td>
</tr>
<tr>
<td>1670-01-062-6304</td>
<td>For riser extension:</td>
<td></td>
</tr>
<tr>
<td>1670-01-062-6311</td>
<td>120-ft (2-loop), type XXVI nylon webbing</td>
<td>5</td>
</tr>
<tr>
<td>5340-00-040-5319</td>
<td>Strap, parachute release, multi-cut, comes w/ 3 knives</td>
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<tr>
<td>7510-00-266-5016</td>
<td>Tape, adhesive, 2-in</td>
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<tr>
<td>1670-01-344-0825</td>
<td>Tiedown assembly, 15-foot</td>
<td>58</td>
</tr>
<tr>
<td></td>
<td>Vehicle drive-off aid</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Webbing:</td>
<td></td>
</tr>
<tr>
<td>8305-00-266-2411</td>
<td>Cotton, ⅜-in, type I</td>
<td>As required</td>
</tr>
<tr>
<td>8305-00-082-5752</td>
<td>Nylon, tubular, ⅜-in</td>
<td>As required</td>
</tr>
<tr>
<td>No NSN</td>
<td>Type V</td>
<td>As required</td>
</tr>
<tr>
<td>8305-00-263-3591</td>
<td>Type VIII</td>
<td>As required</td>
</tr>
</tbody>
</table>

**Legend**
- ft foot
- lb pound
- in inch
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Chapter 6

Rigging Ground Mobility Vehicle on a 16-Foot Platform for Low-Velocity Airdrop

DESCRIPTION OF LOAD

6-1. The Ground Mobility Vehicle is a modified M1025 HMMWV-series truck is shown in Figure 6-1. It has a winch, a rigid roof, and a turret to support weapons. It is rigged the same as the M998 truck except as noted. The truck is rigged on a 16-foot, type V airdrop platform for low-velocity airdrop. The truck is configured to carry a special operations load. The accompanying load shown weighs 2,140 pounds. The load shown requires three G-11 cargo parachutes.

PREPARING PLATFORM

6-2. Prepare a 16-foot, type V airdrop platform according to TM 10-1670-268-20&P/TO 13C7-52-22. Install four tandem links and 18 load tiedown clevises according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5, and as show in Figure 6-2.

Figure 6-1. Ground Mobility Vehicle
Steps:

1. Install a tandem link on the front of each platform side rail using holes 1, 2, and 3.
2. Install a tandem link on the rear of each platform side rail using holes 30, 31, and 32.
3. Install a clevis on bushing 1 of each front tandem link.
4. Install a clevis on bushing 4 of each rear tandem link.
5. Starting at the front of the platform, install clevises on each platform side rail using the bushings bolted on holes 5, 15, 20, 21, and 25.
6. Install clevis on bushing 17 in an inverted position. Install a bushing on clevis 17A in the normal position. Bolt an additional clevis to each of these clevises.
7. Starting at the front of the platform, number the clevises bolted to the right side of the platform from 1 through 9, and those bolted to the left side from 1A through 9A. Number the clevises on the 17th bushings 5 and 5A. Number the clevises bolted to these clevises, clevises 4 and 4A.
8. Label the tiedown rings according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/ NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5.

Figure 6-2. Platform Prepared
PREPARING AND POSITIONING HONEYCOMB STACKS
6-3. Prepare three honeycomb stacks as shown in Figures 1-3 and 1-4. Position the stacks on the platform as shown in Figure 1-5, and according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-1.5.

PREPARING TRUCK AND STOWING LOAD
6-4. Prepare the truck as described in paragraphs Figure 1-6, 1-7 omit step 1, and Figure 1-11. Use Figures 6-3 through 6-10 to rig the specialized load and to further prepare the truck.

1. Roll the light scattering screen (LSS) netting and tie it to the roof supports on the sides and in front.
2. Cover the radios with two pieces of honeycomb tied in place with type III nylon cord.

Figure 6-3. Truck Prepared
③ Pad the antenna mounts at the rear of the truck with cellulose wadding and tape in place.

④ Secure the light-scattering screen (LSS) pole bag on the tailgate with straps provided. Secure the strap fasteners and excess strap with type III nylon cord.

⑤ Secure the jack and its handle to the brush guard with type III nylon cord.

⑥ Tie the winch hook to the brush guard with type III nylon cord.

⑦ Be sure the spare wheel is securely bolted to its mount.

Figure 6-3. Truck Prepared (continued)
Notes. 1. All measurements are given in inches.
2. This drawing is not drawn to scale.

⑧ Tape the windshield inside and outside as shown.
⑨ Cover the windshield with an 83- by 21-inch piece of honeycomb. Tape the short edges and tie the honeycomb around the windshield with type III nylon cord.
⑩ Tie an 83- by 14-inch piece of honeycomb over the brush guard and the items tied to it with type III nylon cord.
⑪ Place a 78- by 4-inch piece of honeycomb along the front edge of the hood.
⑫ Place two 36- by 83-inch pieces of honeycomb, with cutouts as shown, over the hood. Tape the upper edges of the top piece. Tie the honeycomb in place with a length of type III nylon cord. Tie the cord to an airlift bracket, pass it through the grille, and tie it off to the other airlift bracket.
⑬ Place two 12- by 83-inch pieces of honeycomb just behind the honeycomb placed in step 12. Tape the top outside edges. Secure the honeycomb to the hood latch brackets with type III nylon cord.
⑭ Tape the hood latches.

Figure 6-3. Truck Prepared (continued)
1. Place a 14- by 45-inch piece of honeycomb flush over each wheel well.
2. Place six filled water cans flush over the honeycomb on the left side, handles facing inward.
3. Route a lashing around the cans and vertical frame members, and fasten the lashing on the inside with a load binder.
4. Route a 30-foot lashing through the can handles, through the ring in front of the cargo area seat, and back through the can handles. Pass the free end of the lashing around the rear bumper and back to the rear of the cans. Fasten the lashing with two D-rings and a load binder.
5. Place six fuel cans 95% full flush over the honeycomb on the right wheel well, handles facing inside.
6. Route a lashing around the cans and vertical frame members, and fasten the lashing on the inside with a load binder. Place cellulose wadding and tape around the load binder.
7. Route a 30-foot lashing through the can handles, through the ring in front of the right cargo area seat, and back through the can handles. Pass the free end of the lashing through the ring at the rear of the seat and up to the top of the cans. Fasten the lashing with two D-rings and a load binder. Pad the load binder with cellulose wadding.
8. Pad the tops of the fuel cans with cellulose wadding and tape in place.

Figure 6-4. Water and Fuel Cans Stowed and Secured
① Wrap six light anti-tank weapons (LAW) and two AT4’s individually with cellulose wadding. Place them between the two mounted cargo boxes.

② Place two lengths of type III nylon cord over the cargo boxes.

③ Wrap three AT4’s and two Javelins individually with cellulose wadding. Secure them together with the type III nylon cord placed in step 2.

④ Pass a lashing through the left tailgate sling guide and over the weapons and cargo boxes. Pass the lashing through the ring on the inside front of the right cargo compartment seat. Fasten the lashing on top of the weapons and boxes.

⑤ Pass a lashing through the right tailgate sling guide and over the weapons and cargo boxes. Pass the lashing through the ring on the inside front of the left cargo compartment seat. Fasten the lashing on top of the weapons and boxes.

Figure 6-5. Stowing Weapons Between and Over Cargo Boxes
① Construct the turret support as shown in Figure 2-2 of this manual.

② Center the turret support under the turret at a 45-degree angle, in a left front to right rear direction.

③ Tie the turret support to convenient points on the turret with ½-inch tubular nylon webbing.

④ Tie the weapon station brake in the DOWN position with type III nylon cord.

⑤ Secure the three turret latches to holes in the turret ring with type III nylon cord.

Figure 6-6. Turret Support Placed and Secured
① Place the stretcher in front of the cargo bed boxes and secure it to the front cargo bed rings with type III nylon cord.

② Place two 30-foot lashing across the truck bed in front of the stretcher. Extend the lashings down into the passenger seat foot wells.

③ Place a ¾- by 21- by 25-inch piece of plywood in the left rear passenger seat foot well.

④ Place a ¾- by 21- by 30-inch piece of plywood in the right rear passenger seat foot well (not shown).

Figure 6-7. Ammunition and Refrigerator Area Prepared
Note: Ammunition boxes should be well padded with felt or cellulose wadding. Padding is not shown here for purposes of clarity.

1. Place seventeen 5.56-mm ammunition cans in the left foot well over the plywood.
2. Place eighteen 5.56-mm ammunition cans in the right foot well over the plywood.
3. Set the refrigerator on an 11- by 22- inch piece of honeycomb in front of the stretcher and between the stacks of ammunition boxes.
4. Pass the lashings placed in Figure 6-6, step 2 over the ammunition boxes. Pass the lashings through the box carrying handles whenever possible. Secure the lashings with load binders in the front and rear of the refrigerator.
5. Tie a length of ¼-inch tubular nylon webbing to the ring behind and inside the driver’s seat. Pass the webbing over the refrigerator, and tie it securely to the ring on the inside front of the right rear passenger seat.
6. Tie a length of ½-inch tubular nylon webbing to the ring behind and inside the front passenger seat. Pass the webbing over the refrigerator, and tie it securely to the ring on the inside front of the left rear passenger seat.

Figure 6-8. Ammunition and Refrigerator Stowed
7 Pass a lashing through both rings behind the right passenger seat, up over the ammunition boxes, and through both rings behind the left rear passenger seat. Secure the lashing with a load binder on top of the boxes.

8 Pass a lashing through both rings behind the driver’s seat, up over the ammunition boxes, and through both rings behind the right rear passenger seat. Secure the lashing with a load binder on top of the boxes.

Figure 6-8. Ammunition and Refrigerator Stowed (continued)
① Remove the barrel from the 50-caliber machine gun (not shown). Wrap the barrel and the gun with cellulose wadding and tape in place.

② Secure the machine gun and barrel to the radio mount with ½-inch tubular nylon webbing.

③ Place the machine gun mount in the front passenger seat with the post facing the rear on the outboard side. Pass ½-inch tubular nylon webbing around the top of the mount, and cross the two ends of the webbing above the post. Bring the ends of the webbing through the rings beside the seat, and tie the webbing to the box in the front.

Figure 6-9. Machine Gun and Mount Stowed and Secured
Cover the roof with full sheets of honeycomb. Crush or cut the bottom layer to allow for the turret. Tape the upper layer. Secure the honeycomb to the roof with type III nylon cord.

Construct the body side boards and secure them to the truck as shown in Figure 1-12 and TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5.

Figure 6-10. Honeycomb Roof Cover and Body Sideboards Installed

LIFTING AND POSITIONING TRUCK AND INSTALLING OPTIONAL DRIVE-OFF AIDS

6-5. Install lifting slings on the truck and position the truck on the platform as shown in Figure 1-15 and Figure 1-16. Install the optional drive-off aids on the platform as shown in Figure 1-17.
**LASHING TRUCK**

Lash the truck to the platform with fifteen 15-foot tiedown assemblies. Install the lashings according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/ NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5, and as shown in Figures 6-11 and 6-12.

<table>
<thead>
<tr>
<th>Lashing Number</th>
<th>Tiedown Clevis Number</th>
<th>Instructions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>Pass lashing: Through tiedown bracket behind right front coil spring.</td>
</tr>
<tr>
<td>2</td>
<td>1A</td>
<td>Through tiedown bracket behind right front coil spring.</td>
</tr>
<tr>
<td>3</td>
<td>2</td>
<td>Through the left rear lifting shackle.</td>
</tr>
<tr>
<td>4</td>
<td>2A</td>
<td>Through the right rear lifting shackle.</td>
</tr>
<tr>
<td>5</td>
<td>3</td>
<td>Around left rear lower control arm.</td>
</tr>
<tr>
<td>6</td>
<td>3A</td>
<td>Around right rear lower control arm.</td>
</tr>
<tr>
<td>7</td>
<td>4</td>
<td>Through tiedown bracket in front of the left rear coil spring.</td>
</tr>
<tr>
<td>8</td>
<td>4A</td>
<td>Through tiedown bracket in front of right rear coil spring.</td>
</tr>
<tr>
<td>9</td>
<td>5 and 5A</td>
<td>Pass a 15-foot lashing thorough clevis 5A and through its own D-ring. Pass the lashing through the hole in stack 2 and secure the lashing to clevis 5 with a load binder.</td>
</tr>
</tbody>
</table>

**Figure 6-11.** Lashings 1 Through 9 Installed.
### Lashing

<table>
<thead>
<tr>
<th>Lashing Number</th>
<th>Tiedown Clevis Number</th>
<th>Instructions</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>6</td>
<td>Pass lashing: Through tiedown bracket behind right front coil spring.</td>
</tr>
<tr>
<td>11</td>
<td>6A</td>
<td>Through tiedown bracket behind right front coil spring.</td>
</tr>
<tr>
<td>12</td>
<td>7</td>
<td>Around left rear lower control arm.</td>
</tr>
<tr>
<td>13</td>
<td>7A</td>
<td>Around right rear lower control arm.</td>
</tr>
<tr>
<td>14</td>
<td>9</td>
<td>Through tiedown bracket on end of left frame rail.</td>
</tr>
<tr>
<td>15</td>
<td>9A</td>
<td>Through tiedown bracket on end of right frame rail.</td>
</tr>
</tbody>
</table>

**Figure 6-12. Lashings 10 Through 15 Installed.**
INSTALLING AND SAFETY TIEING SUSPENSION SLINGS

6-6. Install and safety tie four 16-foot (2-loop), type XXVI nylon suspension slings according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/ NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5, and as shown in Figure 1-20.

STOWING CARGO PARACHUTES

6-7. Use three G-11 cargo parachutes on this load. Stow the cargo parachutes according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/ NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5, and as shown in Figure 6-13.

1. Place and cluster three G-11 cargo parachutes on the honeycomb over the truck hood according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/ NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5.

2. Tie the front restraint to clevises 8 and 8A.

3. Tie the rear restraint straps to the 27th bushings on each side of the platform.

Figure 6-13. Cargo Parachute Installed
INSTALLING PARACHUTE RELEASE

6-8. Prepare and install an M-1 cargo parachute release according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5, and as shown in Figure 6-14.

1. Place the M-1 release on the roof honeycomb in front of the parachutes.
2. S-fold the slack in the suspension slings. Tie the folds with type I, ¼-inch cotton webbing.
3. Attach the suspension slings and the riser extensions to the release. Tie the release to convenient points on the load with type III nylon cord.

Figure 6-14. Cargo Parachute ReleaseInstalled
INSTALLING EXTRACTION SYSTEM

Install the EFTC extraction system with a 20-foot release cable according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/ NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5, and as shown in Figure 1-23.

INSTALLING PROVISIONS FOR EMERGENCY RESTRAINTS

6-9. Install the provisions for emergency restraints on the load according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/ NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5.

PLACING EXTRACTION PARACHUTE

6-10. Select the extraction parachute and extraction line needed using the extraction line requirements table in TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/ NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5. Rig the extraction line in an extraction line bag according to TM 10-1670-286-20/TO 13C5-2-41. Place the extraction parachute and extraction line on the load for installation in the aircraft.

MARKING RIGGED LOAD

6-11. Mark the rigged load according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/ NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5, and as shown in Figure 6-15. Complete Shipper’s Declaration for Dangerous Goods. If the load varies from the one shown, the weight, height, CB, and parachute requirements must be recomputed.

EQUIPMENT REQUIRED

6-12. Use the equipment listed in Table 6-1 on page 6-20 to rig the load.
CAUTION
Make the final rigger inspection required by TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5 before the load leaves the rigging site.

RIGGED LOAD DATA

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weight</td>
<td>12,420 pounds</td>
</tr>
<tr>
<td>Maximum Load Allowed</td>
<td>14,750 pounds</td>
</tr>
<tr>
<td>Height With Three G-11 Parachute</td>
<td>94 inches</td>
</tr>
<tr>
<td>Width</td>
<td>108 inches</td>
</tr>
<tr>
<td>Length</td>
<td>210 inches</td>
</tr>
<tr>
<td>Overhang: Front (vehicle)</td>
<td>0 inches</td>
</tr>
<tr>
<td>Rear (extraction force transfer coupling)</td>
<td>18 inches</td>
</tr>
<tr>
<td>Center of Balance (CB) (from front edge of platform)</td>
<td>96 inches</td>
</tr>
</tbody>
</table>

Figure 6-15. Ground Mobility Vehicle Rigged for Low-Velocity Airdrop
### Table 6-1. Equipment Required for Rigging Ground Mobility Vehicle for Low-Velocity Airdrop

<table>
<thead>
<tr>
<th>National Stock Number</th>
<th>Item</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>8040-00-273-8713</td>
<td>Adhesive, paste, 1-gallon</td>
<td>As required</td>
</tr>
<tr>
<td>4030-00-090-5354</td>
<td>Clevis, suspension, 1-in (large)</td>
<td>5</td>
</tr>
<tr>
<td>4020-00-240-2146</td>
<td>Cord, nylon type III, 550-lb</td>
<td>As required</td>
</tr>
<tr>
<td>1670-00-434-5785</td>
<td>Coupling assembly, airdrop, extraction force transfer with cable, 16-ft</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Cover:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Clevis, large</td>
<td>1</td>
</tr>
<tr>
<td>8135-00-664-3958</td>
<td>Cushioning material, packaging, cellulose wadding</td>
<td>As required</td>
</tr>
<tr>
<td>8305-00-958-3685</td>
<td>Felt, ½-in thick</td>
<td>As required</td>
</tr>
<tr>
<td>1670-01-183-2678</td>
<td>Leaf, extraction line (line bag)</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Line, drogue (for C-17)</td>
<td></td>
</tr>
<tr>
<td>1670-01-064-4452</td>
<td>60-ft (1-loop), type XXVI</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Line, extraction:</td>
<td></td>
</tr>
<tr>
<td>1670-01-062-6313</td>
<td>For C-130: 60-ft (3-loop), type XXVI</td>
<td>1</td>
</tr>
<tr>
<td>1670-01-107-7651</td>
<td>For C-141: 140-ft (3-loop), type XXVI</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>For C-5:</td>
<td></td>
</tr>
<tr>
<td>1670-01-062-6313</td>
<td>60-ft, (3-loop), type XXVI and</td>
<td>1</td>
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<tr>
<td>1670-01-107-7651</td>
<td>140-ft (3-loop), type XXVI</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>For C-17:</td>
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<tr>
<td>1670-01-107-7651</td>
<td>140-ft, (3-loop), type XXVI</td>
<td>1</td>
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<tr>
<td></td>
<td>Link Assembly:</td>
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</tr>
<tr>
<td>5306-00-435-8994</td>
<td>Two-point:</td>
<td>4</td>
</tr>
<tr>
<td>5310-00-232-5165</td>
<td>Bolt, 1-in diam, 4-in long</td>
<td>(8)</td>
</tr>
<tr>
<td>1670-00-003-1953</td>
<td>Nut, 1-in, hexagonal</td>
<td>(8)</td>
</tr>
<tr>
<td>5365-00-007-3414</td>
<td>Plate, side, 3 ¾-in</td>
<td>(8)</td>
</tr>
<tr>
<td></td>
<td>Spacer, large</td>
<td></td>
</tr>
<tr>
<td>Lumber:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5510-00-220-6146</td>
<td>2- by 4-in</td>
<td>As required</td>
</tr>
<tr>
<td>5510-00-220-6448</td>
<td>2- by 6-in</td>
<td>As required</td>
</tr>
<tr>
<td>5510-00-220-6274</td>
<td>4- by 4-in</td>
<td>As required</td>
</tr>
<tr>
<td>5315-00-010-4659</td>
<td>Nail, steel wire, 8d</td>
<td>As required</td>
</tr>
</tbody>
</table>
Table 6-1. Equipment Required for Rigging Ground Mobility Vehicle for Low-Velocity Airdrop
(Continued)

<table>
<thead>
<tr>
<th>National Stock Number</th>
<th>Item</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1670-00-753-3928</td>
<td>Pad, energy-dissipating (honeycomb) 3- by 36- by 96-in</td>
<td>13 Sheets</td>
</tr>
<tr>
<td>1670-01-016-7841</td>
<td>Parachute:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cargo:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>G-11B</td>
<td>2</td>
</tr>
<tr>
<td>1670-00-063-3716</td>
<td>Cargo extraction:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>22-ft (Add H-block for use with C-17)</td>
<td>1</td>
</tr>
<tr>
<td>1670-01-063-3715</td>
<td>Drogue (for C-17)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>15-ft</td>
<td>1</td>
</tr>
<tr>
<td>1670-01-353-8425</td>
<td>Platform, airdrop, type V, 16-ft</td>
<td></td>
</tr>
<tr>
<td>1670-01-162-2372</td>
<td>Bracket assembly, extraction force transfer coupling</td>
<td>(1)</td>
</tr>
<tr>
<td>1670-01-162-2376</td>
<td>Clevis assembly, type V</td>
<td>(20)</td>
</tr>
<tr>
<td>1670-01-162-2381</td>
<td>Bracket assembly, extraction</td>
<td>(1)</td>
</tr>
<tr>
<td>1670-01-097-8816</td>
<td>Tandem link assembly (Multipurpose link)</td>
<td>(4)</td>
</tr>
<tr>
<td>5530-00-128-4981</td>
<td>Plywood, ¾-in</td>
<td>3 Sheets</td>
</tr>
<tr>
<td>5340-00-040-8219</td>
<td>Release, cargo parachute, M-1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sling, cargo, airdrop</td>
<td></td>
</tr>
<tr>
<td></td>
<td>For suspension:</td>
<td></td>
</tr>
<tr>
<td>1670-01-063-7761</td>
<td>16-ft (2-loop), type XXVI nylon webbing</td>
<td>4</td>
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<tr>
<td></td>
<td>For lifting:</td>
<td></td>
</tr>
<tr>
<td>1670-01-062-6304</td>
<td>9-ft (2-loop), type XXVI nylon webbing</td>
<td>2</td>
</tr>
<tr>
<td>1670-01-062-6303</td>
<td>12-ft (2-loop), type XXVI nylon webbing</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>For deployment</td>
<td></td>
</tr>
<tr>
<td>1670-01-062-6304</td>
<td>9-ft (2-loop), type XXVI nylon webbing</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>For riser extension:</td>
<td></td>
</tr>
<tr>
<td>1670-01-062-6302</td>
<td>20-ft (4-loop), type XXVI nylon webbing</td>
<td>6</td>
</tr>
<tr>
<td>5340-00-040-8219</td>
<td>Strap, parachute release, multi-cut, comes w/ 3 knives</td>
<td>2</td>
</tr>
<tr>
<td>5751-00-266-5016</td>
<td>Tape, adhesive, 2-in</td>
<td>As required</td>
</tr>
<tr>
<td>1670-00-937-0271</td>
<td>Tiedown assembly, 15-foot</td>
<td>28</td>
</tr>
<tr>
<td>1670-01-344-0825</td>
<td>Vehicle drive-off aid</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Webbing:</td>
<td></td>
</tr>
<tr>
<td>8305-00-268-2411</td>
<td>Cotton, ¼-in, type I</td>
<td>As required</td>
</tr>
<tr>
<td>8305-00-082-5752</td>
<td>Nylon, tubular, ½-in</td>
<td>As required</td>
</tr>
<tr>
<td>8305-00-263-3591</td>
<td>Type V</td>
<td>As required</td>
</tr>
</tbody>
</table>

Legend

<table>
<thead>
<tr>
<th>ft</th>
<th>Foot</th>
</tr>
</thead>
<tbody>
<tr>
<td>in</td>
<td>Inch</td>
</tr>
<tr>
<td>lb</td>
<td>pound</td>
</tr>
</tbody>
</table>
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Chapter 7

Rigging the M996 Ambulance on a 20-Foot Type V Airdrop Platform for Low-Velocity Airdrop

DESCRIPTION OF LOAD

7-1. The M996 ambulance (shown in Figure 7-1) is rigged on a 20-foot, type V airdrop platform for low-velocity airdrop. The load requires two or three G11 cargo parachutes, depending upon the accompanying load in the vehicle.

PREPARING PLATFORM

7-2. Prepare a 20-foot, type V platform as described below and as shown in Figure 7-2.

- **Inspecting Platform.** Inspect, or assemble and inspect, the platform according to TM 10-1670-268-20&TO 13C7-52-22.
- **Installing Tandem Links.** Install tandem links as shown in Figure 7-2.
- **Installing Suspension Links.** Install the suspension links as described in Figure 7-2.
- **Attaching and Numbering Clevises.** Attach and number 28 clevis assemblies as shown in Figure 7-2.

Figure 7-1. M996 2-Litter Armored Ambulance
Steps:

1. Install a tandem link on the front of each platform side rail using holes 1, 2, and 3.
2. Install a suspension link to each side rail using holes 33, 34, and 35.
3. Install clevises on bushings 1 and 3 on each tandem link.
4. Install a clevis on bushing 2 on each suspension link.
5. Starting at the front of each platform side rail, install clevises on each platform side rail using the bushings bolted on holes 6, 11 (tripled), 13, 14, 15, 17, 22, 27 (tripled), and 31.
6. Starting at the front of the platform, number the clevises bolted to the right side from 1 through 14 and those bolted to the left side from 1A and 14A.
7. Label the tiedown rings according TM 4-48.02/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5.

Figure 7-2. Platform Prepared
BUILDING AND POSITIONING HONEYCOMB STACKS

7-3. Build the honeycomb stacks as shown in Figures 7-3 and 7-4. Position the honeycomb stacks as shown in Figure 7-5.

1. Use an 80- by 24-inch piece of honeycomb to form a base.
2. Center and glue three 54- by 24-inch pieces of honeycomb on the base.
3. Glue a ¾- by 54- by 24-inch piece of plywood over the honeycomb placed in step 2 above.
4. Glue one 54- by 24-inch piece of honeycomb on top of the plywood placed in step 3 above.
5. Center and glue two 20- by 24-inch pieces of honeycomb on top of the honeycomb placed in step 4 above.
6. Glue a ¾- by 20- by 24-inch piece of plywood over the honeycomb placed in step 5 above.
7. Glue one 20- by 24-inch piece of honeycomb on top of the plywood placed in step 6 above.
8. Repeat to make a second stack.

Figure 7-3. Stacks 1 and 3 Prepared
**Notes.** 1. All measurements are given in inches.
   2. This drawing is not drawn to scale.

1. Glue three 43- by 26-inch pieces of honeycomb flush together to form a base.
2. Center and glue three 43- by 18-inch pieces of honeycomb flush on the base.
3. Nail a 43-inch piece of 4- by 4-inch lumber parallel to each long side and 1 ½ inches from each long edge of a ¾- by 43- by 18-inch piece of plywood. Nail a second ¾- by 43- by 18-inch piece of plywood to the lumber and flush with the bottom piece of plywood. Glue the wooden section of the stack flush on the honeycomb placed in step 2 above.
4. Make the cutout as shown in a 43- by 18-inch piece of honeycomb. Glue the honeycomb flush over the plywood.

**Figure 7-4. Stack 2 Prepared**
Notes. 1. All measurements are given in inches.
2. This drawing is not drawn to scale.

<table>
<thead>
<tr>
<th>Stack Number</th>
<th>Position on Platform</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Place stack: 6 inches from the front edge of the platform and centered.</td>
</tr>
<tr>
<td>2</td>
<td>35 inches from the rear of stack one and centered. Face the cutout to the front.</td>
</tr>
<tr>
<td>3</td>
<td>45 inches from the rear edge stack 2 and centered.</td>
</tr>
</tbody>
</table>

Figure 7-5. Honeycomb Stacks Positioned on Platform
INSTALLING OPTIONAL DRIVE-OFF AIDS ON PLATFORM

7-4. Install the drive-offs aid on the platform as shown in Figure 7-6.

*Note.* The use of the drive-off aids are optional.

1. Pass a 45-inch length of 1-inch tubular nylon webbing through tiedown ring A1, through the end loop of the drive-off aid, and around the second bushing of the right tandem link. Knot the webbing according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5.

2. Repeat step 1 for the left side, using tiedown ring B1 and the second bushing of the left tandem link.

3. Extend the drive-off aids to the rear, over stacks 1 and 3.

4. Secure the drive-off aids to clevises and bushing with type I, ¼-inch cotton webbing.

*Figure 7-6. Drive-Off Aids Installed on Platform*
PREPARING AMBULANCE

7-5. Prepare the truck as described below:

- Make sure the fuel tank is now more than ¾ full. Prepare the fuel tank filler cap fuel filler opening as shown in Figure 7-7.
- Prepare the fuel tank drain plug as shown in Figure 7-8.
- Make sure the batteries and battery compartment comply with AFMAN 24-204(I)/TM 38-250/NAVSUP PUB 505/MCO P4030.19H/DLAI 4145.3.
- Stow the ambulance on-vehicular equipment (OVE) in the compartment behind the driver’s door. Fill the empty space with honeycomb and close the compartment door. Tape the latches (not shown).
- Prepare the cab of the ambulance as shown in Figure 7-9.
- Prepare the underside of the truck as shown in Figure 7-10.
- Prepare the front of the ambulance as shown in Figure 7-11.
- Prepare and secure the pioneer tool kit according to TM 9-2320-280-10/TO 36A12-1A-2091-1/TM 2320-10/6, and as shown in Figure 7-12.
- Prepare the ambulance body as shown in Figures 7-13 and 7-14.

![Figure 7-7. Fuel Tank Filler Cap and Opening Prepared](image)

1. Tie the fuel filler cap to the body of the truck with type III nylon cord.
2. Tape the fuel filler opening.
Place a 12-inch length of cloth-backed tape over the fuel tank drain plug.

Figure 7-8. Fuel Tank Drain Plug Prepared
① Tie the engine start switch in the engine stop position with type I, ¼-inch cotton webbing.

② Tie the steering wheel to the seat frame in two places with type III nylon cord, or use the retractable steering wheel locking cable. If the locking cable is used, secure it to the steering wheel with type III nylon, not a padlock.

③ Tie the emergency brake handle in the off position with type III nylon cord.

④ Place the transmission and four-wheel drive levers in the neutral position.

⑤ Tie the seat cushions to the seat frames with type III nylon cord.

⑥ Tie the fire extinguisher in place with two lengths of type III nylon cord.

⑦ Tape all instrument panel gauges.

⑧ If equipped with an antenna, remove the antenna and tape over the hole with a length of 2-inch cloth-backed tape. Wrap the mount with cellulose wadding and tape. Secure the antenna mount in the equipment storage box (not shown).

Figure 7-9. Cab Prepared
9 Pad the face of the radio with felt. Tie the felt to the radio mount supports with type III nylon cord.

**Note.** Pad the control of any other radio equipment in the same way. Tie larger radios to their mounts with ½-inch tubular nylon webbing.

10 Tape the windshield glass on both sides in an X using 2-inch masking tape.

11 Tape the side windows on both sides in an X using 2-inch masking tape and lower them.

12 Secure both doors of the cab with a length of type III nylon cord from door-to-door.

*Figure 7-9. Cab Prepared (continued)*
Pad the lower control arms on the front and rear of the truck with cellulose wadding taped in place.

Pass a 15-foot lashing over the right frame rail, under the oil pan, and over the left frame rail. Make sure the lashing goes over the exhaust pipe and then under it. Make sure the wires running along the frame rail are to the outside of the lashing. Place a 12- by 12-inch piece of honeycomb and a 2- by 6- by 16-inch piece of lumber between the lashing and the oil pan. Fasten the lashing with a D-ring and a load binder.

Secure a second lashing just to the rear of the lashing installed in step 2. Route the lashing in the same way.

Figure 7-10. Underside of Ambulance Prepared
1. Pad the mirrors with cellulose wadding. If the mirrors are on single posts, fold them inward over the windshield and secure together with type III cord. If the mirrors are supported on brackets at the top and bottom, fold them inward against the doors; tie them together inside the cab.

2. Secure a 21- by 83-inch piece of honeycomb over the windshield with type III nylon cord.

3. Make cutouts in two 36- by 83-inch pieces of honeycomb as shown and place the honeycomb on the hood. Secure the honeycomb in place with a length of type III nylon cord tied to the upper control arms.

4. Place two 12- by 83-inch pieces of honeycomb between the windshield and the pieces of honeycomb placed in step 3 above. Make a cutout 10 inches wide and 5 inches long in the bottom piece to clear the air breather cap.

5. Tape the hood latches with 2-inch cloth-backed tape.

Figure 7-11. Honeycomb Placed on Front of Ambulance and Mirrors Folded
6 Run a length of type III nylon cord through the grille as shown. Run each free end over the honeycomb placed in steps 3 and 4 above. Tie the ends to the mirror supports or the upper door hinges.

7 Tape all lights and reflectors with masking tape.

**Note.** Burlap or sandbag material may be placed over the headlights and held in place by the headlight securing rings.

Figure 7-11. Honeycomb Placed on Front of Ambulance and Mirrors Folded (continued)
① Tape all sharp edges of the pioneer tools. Pad the ax head with cellulose wadding.
② Place the tools in the rack, and secure them with the straps provided, and with type III nylon cord.
③ Close and latch the tool rack. Tie the rack in place with type III nylon cord.

Figure 7-12. Pioneer Tool Kit Secured
WARNING

Lowering the steps at the rear of the ambulance from inside may cause serious injury. Lower the steps from outside the ambulance. Use one hand to activate the release, and control the descent of the steps assembly with the other hand.

1. Secure the splints in their storage compartment. Use the securing straps provided.
2. Secure the long backboard against the left wall with the straps provided.
3. Secure the short backboard and traction splint against the right wall with the straps provided.

Note. Reinforce the straps with type III nylon cord.

Figure 7-13. Medical Equipment Secured
④ Secure the blanket set in the left front compartment and the resuscitator kit box in the right front compartment. Use the straps provided.

⑤ Secure the two litters with the straps provided.

⑥ Place the camouflage net and pole bags in the center of the floor. Secure them to the litter tiedown brackets and to the shelf supports with $\frac{1}{2}$-inch tubular nylon webbing.

*Note.* Medical equipment may be different, depending upon the needs of the medical unit. Tie additional equipment, such as water cans, securely to stationary points in the ambulance with $\frac{1}{2}$-inch tubular nylon webbing.
1. Close and latch the doors.

2. Make an indentation in the center of an 18- by 18-inch piece of honeycomb to fit the door handle. Tape the edges with 2-inch cloth-backed tape and secure the honeycomb to the door handle with two lengths of type III nylon cord.

3. Tape the medical identification panel latches on the rear and side of the ambulance.

Figure 7-14. Doors Secured and Latches Covered
LIFTING AND POSITIONING AMBULANCE

7-6. Install slings for lifting the ambulance and an attitude control bar (ACB) for the rear lifting slings as shown in Figure 7-15. Position the ambulance on the honeycomb stacks as shown in Figure 7-16.

1. Tie a piece of plywood or felt to the attitude control bar (ACB) to prevent damage to the roof. Center the ACB across the roof.

2. Attach a 16-foot (2-loop), type XXVI nylon webbing sling to each rear wheel shackles. Pass the sling up through the square holes of the ACB.

3. Attach a 12-foot (2-loop), type XXVI nylon webbing sling to each airlift bracket with a large suspension clevis. Pass a 3-foot (2-loop), type XXVI nylon webbing sling through the end loops of both front lifting slings. Place both loops of the 3-foot sling in the crane.

4. Lift the ambulance and suspend it slightly above the honeycomb stack. Place a drive-off aid under the right rear wheel. Holding the drive-off aid against the wheel, turn the wheel clockwise until the drive-off aid is under slight tension. Repeat for the other side, but turn the wheel counterclockwise. Tie the end loop of each drive-off aid to the nearest cross piece with a double length of type I, ¼-inch cotton webbing.

Figure 7-15. Lifting Slings Installed, and Drive-off Aids Installed
① Center the ambulance on the platform with the front of the ambulance 2 inches from the front edge of the platform.

② Make sure that the suspension cross members rest squarely on stacks 1 and 3. (not shown)

③ Make sure that the frame rails rest squarely on stack 2.

④ Remove the lifting slings and attitude control bar (ACB) (not shown).

Figure 7-16. Ambulance Positioned
LASHING AMBULANCE

7-7. Lash the ambulance to the platform as shown in Figures 7-17 and 7-18.

<table>
<thead>
<tr>
<th>Lashing Number</th>
<th>Tiedown Number</th>
<th>Clevis Number</th>
<th>Instructions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>1A</td>
<td>Pass lashing: Through tiedown bracket on end of right frame rail.</td>
</tr>
<tr>
<td>2</td>
<td>1A</td>
<td></td>
<td>Through tiedown bracket on end of left frame rail.</td>
</tr>
<tr>
<td>3</td>
<td>4</td>
<td>4A</td>
<td>Around right front lower control arm.</td>
</tr>
<tr>
<td>4</td>
<td>4A</td>
<td></td>
<td>Around left front lower control arm.</td>
</tr>
<tr>
<td>5</td>
<td>6</td>
<td>6A</td>
<td>Through tiedown bracket behind right front coil spring.</td>
</tr>
<tr>
<td>6</td>
<td>6A</td>
<td></td>
<td>Through tiedown bracket behind left front coil spring.</td>
</tr>
<tr>
<td>7</td>
<td>7 and 7A</td>
<td></td>
<td>Through clevis 7A and through its own D-ring, through the hole in stack 2 and secure to clevis 7 with a load binder.</td>
</tr>
</tbody>
</table>

Figure 7-17. Lashings 1 Through 7 Installed.
**Note.** The lashing order deviates from normal order to allow for easier installation of lashings.

<table>
<thead>
<tr>
<th>Lashing Number</th>
<th>Tiedown Clevis Number</th>
<th>Instructions</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>9</td>
<td>Around right rear lower control arm.</td>
</tr>
<tr>
<td>9</td>
<td>9A</td>
<td>Around left rear lower control arm.</td>
</tr>
<tr>
<td>10</td>
<td>8</td>
<td>Through tiedown bracket in front of the right rear coil spring.</td>
</tr>
<tr>
<td>11</td>
<td>8A</td>
<td>Through tiedown bracket in front of left rear coil spring.</td>
</tr>
<tr>
<td>12</td>
<td>13</td>
<td>Through tiedown bracket behind right rear coil spring.</td>
</tr>
<tr>
<td>13</td>
<td>13A</td>
<td>Through tiedown bracket behind left rear coil spring.</td>
</tr>
<tr>
<td>14</td>
<td>12</td>
<td>Through tiedown shackle on right side of bumper.</td>
</tr>
<tr>
<td>15</td>
<td>12A</td>
<td>Through tiedown shackle on left side of bumper.</td>
</tr>
</tbody>
</table>

**Figure 7-18.** Lashings 8 Through 15 Installed.
Chapter 7

INSTALLING SUSPENSION SYSTEM

7-8. Install the suspension as given below:

- Install the roof covers and ACB supports as shown in Figure 7-19.
- Install the attitude control bar (ACB) to the front of the ambulance as shown in Figure 7-20.
- Lash the front ACB to the platform as shown in Figure 7-21.
- Lash the rear ACB to the platform as shown in Figure 7-22.
- Install the suspension slings and the deadman’s tie as shown in Figure 7-23.

1. Place a 16- by 82-inch piece of honeycomb over the piece of honeycomb covering the windshield. Tie the honeycomb in place with type III nylon cord.
2. Stack three 18- by 82-inch pieces of honeycomb against the piece of honeycomb placed in step 1 above.
3. Cover the front of the roof with two 36- by 96-inch pieces of honeycomb, with the front edge of the honeycomb 6 inches from the front edge of the roof.
4. Make a 10- by 20-inch cutout in the honeycomb as shown to allow for fixtures on the roof. Tie the honeycomb to convenient points on the load with type III nylon cord.

*Note.* Tape the edges of the honeycomb where the type III nylon cord passes over it.

Figure 7-19. Roof Cover and ACB Supports Installed
**Notes.** 1. All measurements are given in inches.
2. This drawing is not drawn to scale.

5. Drill eight ½-inch holes 2 inches from the edges in a ¾- by 48- by 76-inch piece of plywood as shown.

6. Cover the rear of the ambulance roof with the plywood so the front edge of the plywood extends under the honeycomb and the rear edge is 12 inches from the rear edge of the roof.

7. Secure the plywood to the roof on both sides with ½-inch tubular nylon webbing as follows: From the front holes in the plywood to the rear bumpers, from the rear holes to the tiedown brackets in front of the rear coils springs, and from the center holes to the tiedown brackets behind the rear coil springs.

8. Place a 76- by 12-inch piece of honeycomb across the roof against the rear edge of the plywood. Tape the edges and secure the honeycomb to the rear door hinges and to the rear holes in the plywood with type III nylon cord.

Figure 7-19. Roof Cover and ACB Supports Installed (continued)
Note. Do NOT use the suspension sling spreader bar on the front of the ambulance. Use only the attitude control bar (ACB).

1. Drill a ½-inch hole 1 inch from each corner of a ¾- by 15- by 76-inch piece of plywood. Tie an ACB to the plywood with ½-inch tubular nylon webbing. Repeat this step to make the rear ACB.

2. Center the ACB and plywood on the honeycomb stack on the front of the ambulance with the rings facing the front.

3. Run a 15-foot lashing from each lifting bracket around the center bar of the ACB.

Figure 7-20. ACB Installed on Front of Ambulance
<table>
<thead>
<tr>
<th>Lashing Number</th>
<th>Tiedown Clevis Number</th>
<th>Instructions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>Pass lashing:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Through ring of attitude control bar (ACB).</td>
</tr>
<tr>
<td>2</td>
<td>2A</td>
<td>Through ring of ACB.</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
<td>Through square hole of ACB.</td>
</tr>
<tr>
<td>4</td>
<td>3A</td>
<td>Through square hole of ACB.</td>
</tr>
<tr>
<td>5</td>
<td>5</td>
<td>Around rear bar of ACB.</td>
</tr>
<tr>
<td>6</td>
<td>5A</td>
<td>Around rear bar of ACB.</td>
</tr>
</tbody>
</table>

Figure 7-21. Front ACB Lashed to Platform
Note. Center the attitude control bar (ACB) made in Figure 7-20 with the rings facing front. Tie the attitude control bar (ACB) to the plywood through the second and third holes with ½ inch tubular nylon webbing. (not shown)

Note: Do not over tighten the lashings because it will cause the roof to buckle.

<table>
<thead>
<tr>
<th>Lashing Number</th>
<th>Tiedown Clevis Number</th>
<th>Instructions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>10</td>
<td>Pass lashing: Through ring of ACB.</td>
</tr>
<tr>
<td>2</td>
<td>10A</td>
<td>Through ring of ACB.</td>
</tr>
<tr>
<td>3</td>
<td>11</td>
<td>Through square hole of ACB.</td>
</tr>
<tr>
<td>4</td>
<td>11A</td>
<td>Through square hole of ACB.</td>
</tr>
<tr>
<td>5</td>
<td>14</td>
<td>Around rear bar of ACB.</td>
</tr>
<tr>
<td>6</td>
<td>14A</td>
<td>Around rear bar of ACB.</td>
</tr>
</tbody>
</table>

Figure 7-22. Rear ACB Lashed to Platform
1) Attach a 20-foot (2-loop), type XXVI nylon sling with a large clevis to the tandem link. Route the free running end through the square hole of the attitude control bar (ACB). Repeat for opposite side.

2) Attach a 20-foot (2-loop), type XXVI nylon sling with a large clevis to the suspension bracket. Route the free running end through the square hole of the ACB. Repeat for opposite side.

3) Raise the slings and pad with felt and type 12 inches above and below the ACB.

4) Install a deadman's tie according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/ NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5.

5) Secure the slings to the ACB with a piece of type III nylon cord.

Figure 7-23. Suspension Slings and Deadman’s Tie Installed
STOWING CARGO PARACHUTES

7-9. Prepare and install the parachute stowage platform as shown in Figure 7-24. Weigh the load and install the correct number of parachutes according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5. The load shown in Figure 7-25 requires three G-11 parachutes.

① Alternate six pieces of 60-by-36-inch honeycomb and six pieces of 60-by-12-inch to make a six layer stack 60-by-48-inches. Glue the layers together and type the top edges.

② Center a 60-inch edge flush with the rear edge of the platform. Cut a 5-by-12-inch section from the honeycomb over the extraction bracket nuts to allow for inspection.

③ Secure the stack to the platform with type III nylon cord tied to convenient tiedown rings, clevises, and bushings.

Figure 7-24. Parachute Stowage Platform Prepared and Installed
① Install three G-11 cargo parachutes according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5.

② Tie the rear parachute restraint strap to the 38th bushing on each side.

③ Tie the front parachute restraint strap to clevises 14 and 14A.

Figure 7-25. Parachutes Installed
INSTALLING EXTRACTION SYSTEM

7-10. Install the EFTC according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/ NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5 and as shown in Figure 7-26.

1. Install the actuator bracket to the rear holes in the left platform side rail.

2. Install the actuator and a 16-foot cable. Tie the cable to convenient points inside the lashings with type I, ¼-inch cotton webbing.

3. Install the latch assembly and install the cable. Secure the cable according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/ NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5.

4. Install a 9-foot (2-loop), type XXVI nylon webbing sling as the deployment line. Fold and secure the excess with type I, ¼-inch cotton webbing.

Figure 7-26. Extraction Force Transfer Coupling (EFTC) Installed
INSTALLING PARACHUTE RELEASE

7-11. Install a M-1 cargo parachute release according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5 and as shown in Figure 7-27.

INSTALLING PROVISIONS FOR EMERGENCY RERAINTS

7-12. Install provisions for emergency restraints on the front of the platform according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5.

1 Center the release assembly on the roof behind the spreader bar as shown. Connect the suspension slings and the riser extensions according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5.

2 Safety tie the connector links with type III nylon cord to a convenient point on the load.

3 Safety tie the bottom of the release with type III nylon cord to a convenient point on the load.

4 S-fold and tie any slack in the suspension slings with type I, ¼-inch cotton webbing.

Figure 7-27. M-1 Release Installed
PLACING EXTRACTION PARACHUTE

7-13. Select the extraction parachute and extraction line needed using the extraction line requirements table in TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/ NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5. Rig the extraction line in an extraction line bag according to TM 10-1670-286-20/TO 13C5-2-41. Place the extraction parachute and extraction line on the load for installation in the aircraft. If a drogue parachute and drogue line are required, place them on the platform for installation in the aircraft as well.

MARKING RIGGED LOAD

7-14. Mark the rigged load according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/ NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5 and as shown in Figure 7-28. Complete the Shipper’s Declaration for Dangerous Goods. If the load varies from the one shown, the weight, height, CB, and parachute requirements must be recomputed.

EQUIPMENT REQUIRED

7-15. Use the equipment listed in Table 7-1 on page 7-34 to rig this load.
CAUTION

Make the final rigger inspection required by TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/ NAVSEA SS400-AB-MM0-010 REV 1/TO 13C7-1-5 before the load leaves the rigging site.

RIGGED LOAD DATA

Weight.................................................................11,680 pounds
Maximum Load Allowed ........................................13,500 pounds
Height With Three G-11 Parachute.............................100 inches
Width....................................................................108 inches
Length....................................................................258 inches
Overhang: Front (vehicle)........................................0 inches
          Rear (extraction force transfer coupling ............18 inches
          Center of Balance (CB) (from front edge of platform ..110 inches

Figure 7-28. M996, 2-Litter Armored Ambulance (HMMWV) Rigged for Low-Velocity Airdrop
<table>
<thead>
<tr>
<th>National Stock Number</th>
<th>Item</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>8040-00-273-8713</td>
<td>Adhesive, paste, 1-gallon</td>
<td>As required</td>
</tr>
<tr>
<td>1670-00-003-4389</td>
<td>Bar, attitude control</td>
<td>2</td>
</tr>
<tr>
<td>4030-00-090-5354</td>
<td>Clevis, suspension, 1-inch (large)</td>
<td>5</td>
</tr>
<tr>
<td>4020-00-240-2146</td>
<td>Cord, nylon type III, 550-pound</td>
<td>As required</td>
</tr>
<tr>
<td>1670-00-434-5785</td>
<td>Coupling, airdrop, extraction force transfer with cable, 16-foot</td>
<td>1</td>
</tr>
<tr>
<td>1670-00-360-0328</td>
<td>Cover, clevis, large</td>
<td>3</td>
</tr>
<tr>
<td>8135-00-664-6958</td>
<td>Cushioning material, packaging, cellulose wadding</td>
<td>As required</td>
</tr>
<tr>
<td>8305-00-958-3685</td>
<td>Felt, ½-inch thick</td>
<td>As required</td>
</tr>
<tr>
<td>1670-01-183-2678</td>
<td>Leaf, extraction line (line bag)</td>
<td>2</td>
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<tr>
<td>1670-01-064-4452</td>
<td>Line, drogue, 60-foot (1-loop), type XXVI (for C-17)</td>
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</tr>
<tr>
<td></td>
<td>Line, extraction</td>
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<tr>
<td>1670-01-062-6313</td>
<td>60-foot (3-loop), type XXVI (for C-130)</td>
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<td>1670-01-107-7651</td>
<td>140-foot (3-loop) type XXVI (for C-17)</td>
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<tr>
<td>1670-00-003-1953</td>
<td>Link assembly, two-point</td>
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<tr>
<td></td>
<td>3 ¾-inch</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Lumber:</td>
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</tr>
<tr>
<td>5510-00-220-6148</td>
<td>2- by 6-inch</td>
<td>As required</td>
</tr>
<tr>
<td>5510-00-220-6274</td>
<td>2- by 4-inch</td>
<td>As required</td>
</tr>
<tr>
<td>5315-00-010-4659</td>
<td>Nail, steel wire, 8d</td>
<td>As required</td>
</tr>
<tr>
<td>1670-00-753-3928</td>
<td>Pad, energy-dissipating (honeycomb)</td>
<td>20 sheets</td>
</tr>
<tr>
<td></td>
<td>Parachute:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cargo:</td>
<td></td>
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<tr>
<td></td>
<td>G-11</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Cargo extraction:</td>
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</tr>
<tr>
<td>1670-01-063-3716</td>
<td>22-foot</td>
<td>1</td>
</tr>
<tr>
<td>1670-01-063-3715</td>
<td>15-foot (drogue for C-17)</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Platform, airdrop, type V, 20-foot</td>
<td></td>
</tr>
<tr>
<td>1670-01-353-8425</td>
<td>Bracket assembly, coupling</td>
<td>(1)</td>
</tr>
<tr>
<td>1670-01-162-2372</td>
<td>Clevis assembly, type V</td>
<td>(28)</td>
</tr>
<tr>
<td>1670-01-353-8424</td>
<td>Extraction bracket assembly</td>
<td>(1)</td>
</tr>
<tr>
<td>1670-01-247-2389</td>
<td>Suspension link</td>
<td>(2)</td>
</tr>
<tr>
<td>1670-01-162-2381</td>
<td>Tandem link assembly (multipurpose link)</td>
<td>(2)</td>
</tr>
<tr>
<td>5530-00-128-4981</td>
<td>Plywood, ¾-inch</td>
<td>4 sheets</td>
</tr>
<tr>
<td>1670-01-097-8816</td>
<td>Release, cargo parachute, M-1</td>
<td>1</td>
</tr>
</tbody>
</table>
### Table 7-1. Equipment Required for Rigging M996 Ambulance for Low-Velocity Airdrop (continued)

<table>
<thead>
<tr>
<th>National Stock Number</th>
<th>Item</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Sling, cargo, airdrop:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>For suspension:</td>
<td></td>
</tr>
<tr>
<td>1670-01-062-6302</td>
<td>20-foot (2-loop), type XXVI nylon webbing</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>For lifting:</td>
<td></td>
</tr>
<tr>
<td>1670-01-062-6301</td>
<td>3-foot (2-loop), type XXVI nylon webbing</td>
<td>1</td>
</tr>
<tr>
<td>1670-01-062-6303</td>
<td>12-foot (2-loop), type XXVI nylon webbing</td>
<td>2</td>
</tr>
<tr>
<td>1670-01-063-7761</td>
<td>16-foot (2-loop), type XXVI nylon webbing</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>For deployment:</td>
<td></td>
</tr>
<tr>
<td>1670-01-062-6304</td>
<td>9-foot (2-loop), type XXVI nylon webbing</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>For riser extension:</td>
<td></td>
</tr>
<tr>
<td>1670-01-062-6302</td>
<td>20-foot (2-loop), type XXVI nylon webbing</td>
<td>2</td>
</tr>
<tr>
<td>1670-01-062-6313</td>
<td>60-foot (3-loop), type XXVI nylon webbing</td>
<td>3</td>
</tr>
<tr>
<td>4910-01-313-8839</td>
<td>Spreader bar assembly</td>
<td>1</td>
</tr>
<tr>
<td>5340-00-040-8219</td>
<td>Strap, parachute release multi-cut, with 3 knives</td>
<td>2</td>
</tr>
<tr>
<td>7510-00-266-5016</td>
<td>Tape, adhesive, 2-inch</td>
<td>As required</td>
</tr>
<tr>
<td>1670-00-937-0271</td>
<td>Tiedown assembly, 15-foot</td>
<td>34</td>
</tr>
<tr>
<td>1670-01-483-8259</td>
<td>Tow release mechanism (H-Block for C-17)</td>
<td>1</td>
</tr>
<tr>
<td>1670-01-344-0825</td>
<td>Vehicle drive-off aid</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Webbing:</td>
<td></td>
</tr>
<tr>
<td>8305-00-268-2411</td>
<td>Cotton, ¼-inch, type I</td>
<td>As required</td>
</tr>
<tr>
<td>8305-00-082-5752</td>
<td>Nylon, tubular, ½-inch</td>
<td>As required</td>
</tr>
<tr>
<td>8305-00-263-3591</td>
<td>Type VIII</td>
<td>As required</td>
</tr>
</tbody>
</table>
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Chapter 8

Rigging the M997 Ambulance on a 20-Foot Type V Airdrop Platform for Low-Velocity Airdrop

DESCRIPTION OF LOAD

8-1. The M997 ambulance (shown in Figure 8-1) is rigged on a 20-foot, type V airdrop platform for low-velocity airdrop. The load requires three G-11 cargo parachutes, depending upon the accompanying load in the vehicle.

<table>
<thead>
<tr>
<th>CAUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>This load may be dropped from C-17 aircraft only.</td>
</tr>
</tbody>
</table>

PREPARING PLATFORM

8-2. Prepare a 20-foot, type V platform as described below and as shown in Figure 8-2.

- **Inspecting Platform.** Inspect, or assemble and inspect the platform according to TM 10-1670-268-20&P/TO 13C7-52-22.
- **Installing Tandem Links.** Install tandem links as shown as Figure 8-2.
- **Installing Suspension Links.** Install the suspension links as described in Figure 8-2.
- **Attaching and Number Clevises.** Attach and number 28 clevis assemblies as shown in Figure 8-2.

Figure 8-1. M997 4-Litter Ambulance
Steps:

1. Install a tandem link on the front of each platform side rail using holes 1, 2, and 3.
2. Install a suspension link to each side rail using holes 33, 34, and 35.
3. Install clevises on bushings 1 and 3 on each tandem link assembly.
4. Install a clevis on bushing 2 on each suspension link assembly.
5. Starting at the front of each platform side rail, install clevises on each platform side rail using the bushings bolted on holes, 9, 11, 13, 14, 15, 16, 17, 21, 26, 27, and 31.
6. Starting at the front of the platform, number the clevises bolted to the right side from 1 through 14 and those bolted to the left side from 1A and 14A.

**Note.** Position clevis 6 in an inverted position.

7. Label the tiedown rings according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/ NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5.

---

**Figure 8-2. Platform Prepared**
BUILDING AND POSITIONING HONEYCOMB STACKS

8-3. Build the honeycomb stacks as shown in Figures 7-3 and 7-4. Position the honeycomb stacks as shown in Figure 8-3.

INSTALLING OPTIONAL DRIVE-OFF AIDS ON PLATFORM

8-4. Installation of the drive-off aids is optional and not shown in this chapter. Refer to Figure 7-6 for installation.

PREPARING AMBULANCE

8-5. Prepare the ambulance as described below:

- Make sure the fuel tank is no more than ¾ full. Prepare the fuel tank filler cap and fuel filler opening as shown in Figure 7-7. Prepare the fuel tank drain plug as shown in Figure 7-8.
- Make sure the batteries and battery compartment comply with AFMAN 24-204(I)/TM 38-250/NAVSUP PUB 505/MCO P4030.19H/DLAI 4145.3/NAVSUP PUB 505/MCO P4030.19H/DLAI 4145.3.
- Stow the ambulance on-vehicular equipment (OVE) in the compartment behind the driver’s door. Fill the empty space with honeycomb and close the compartment door. Tape the latches (not shown).
- Tape all lights and reflectors.
- Prepare the underside of the truck as shown in Figure 7-10.
- Prepare and secure the pioneer tool kit according to TM 9-2320-280-10/TO 36A12-1A-2091-1/TM 2320-10/6 and as shown in Figure 7-12.
- Construct and position inner door support frame as shown in Figures 8-4 and 8-5.
- Prepare the cab of the ambulance as shown in steps 1 through 10 of Figure 7-9 and Figure 8-6.
- Prepare the transport area of the ambulance as shown in Figures 8-7 through 8-19.
- Prepare the body of the ambulance as shown in Figures 8-10 through 8-12.
Notes. 1. All measurements are given in inches.  
   2. This drawing is not drawn to scale.

<table>
<thead>
<tr>
<th>Stack Number</th>
<th>Position on Platform</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Place stack: 6 inches from the front edge of the platform and centered.</td>
</tr>
<tr>
<td>2</td>
<td>37 inches from the rear of stack one and centered. Face the cutout to the front.</td>
</tr>
<tr>
<td>3</td>
<td>45 inches from the rear edge stack 2 and centered.</td>
</tr>
</tbody>
</table>

Figure 8-3. Honeycomb Stacks Positioned on Platform
Notes. 1. All measurements are given in inches.
2. This drawing is not drawn to scale.
3. Glue the honeycomb after the frame is positioned.

1. Cut one 4-by-4-by-24-inch piece of lumber for a base.
2. Cut and center a 2-by-4-by-21-inch piece of lumber on the base.
3. Cut a two 2-by-4-54-inch pieces of lumber and nail upright against the 2-by-4 nailed to the base.
5. Cut a 2-by-4-by-20-inch piece of lumber and nail on the side of the 54 inch lumber 22½ inches above the base.
7. Cut one 4-by-13-inch piece of honeycomb and glue the honeycomb 4 inches from the front edge the ¾-inch plywood and flush against the 12-inch side of the ¾-inch plywood after the support frame is positioned.

Figure 8-4. Inner Door Support Constructed
① Open and secure the inner doors between the cab and transport area with type III nylon cord.

② Position the inner door support in the cab flush against the door opening to the transport area. Ensure 4 inches of the top of the frame is to the inside of the cab and the bottom of the frame is flush against the inner door frame. Secure the inner door frame support in place with lengths of type III nylon cord.

③ Cut two 9- by 11-inch pieces of felt and two ¾- by 9- by 11-inch piece of plywood. Place a piece of felt on top of the ¾-inch plywood and place under the inner door. Repeat for opposite door.

Figure 8-5. Inner Door Support Positioned
**Notes.**

1. All measurements are given in inches.
2. This drawing is not drawn to scale.

1. Construct two cab supports as shown.
2. Position the driver’s side and passenger side cab support on the respective seat. Ensure the supports do not make contact with the air and heat elements running along the inside of the cab roof.

*Note.* If the seats are worn additional wood shims may be needed to make contact with the top of the cab and the seat.

3. Secure the cab supports in place with a length of type III nylon cord horizontally to convenient places within the cab.

*Figure 8-6. Cab Prepared*
4. Secure the windows in the down position with lengths of ½-inch tubular nylon over the window and around the door.

5. Secure both doors of the cab with a length of type III nylon cord from door-to-door.

6. Rotate the mirrors inward toward the doors and secure with a length of type III nylon cord from the mirror bracket-to-mirror bracket.

Figure 8-6. Cab Prepared (continued)
Rigging the M997 Ambulance on a 20-Foot Type V Airdrop Platform for Low-Velocity Airdrop

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WARNING

Lowering the steps at the rear of the ambulance from inside may cause serious injury. Lower the steps from outside the ambulance. Use one hand to activate the release, and control the descent of the steps assembly with the other hand.

1 Secure the blanket set in the left front compartment and resuscitator kit in the right side compartment. Place the camouflage nets and poles in the storage compartments (not shown).

Note. Medical equipment may be different, depending upon the needs of the medical unit. Tie additional equipment, such as water cans, securely to stationary points in the ambulance with \(\frac{1}{2}\)-inch tubular nylon webbing.

2 Remove two of the four litters and place them in their storage compartment. Remove the remaining two litters and place to the side.

3 Remove the litter support racks from their latches. Position the litters and backboards against the racks. Secure the racks and litters together with type III nylon cord through the legs of the litters. Route an additional length of \(\frac{1}{2}\)-inch tubular nylon webbing around the racks and litters and secure to the backboard support brackets. Ensure all hardware is reinstalled once the racks are removed.

Figure 8-7. Transport Area Prepared
4. Remove the oxygen tanks from the designated racks. Pad the tanks with cellulose wadding and return them to the designated racks.

5. Tape all straps in the transport area.

6. Remove the inner lights from their mounting brackets and wrap with cellulose wadding and tape. Return the lights to their brackets and secure the light wiring to a convenient point with type III cord.

Figure 8-7. Transport Area Prepared (continued)
7 Cut four 77- by 24-inch pieces of honeycomb. Position the pieces on the floor of the transport area and flush against the opened inner doors. Cutouts on the bottom piece may be necessary to fit on the floor.

8 Cut and position a 77- by 23-inch piece of honeycomb on top of the pieces from step 7.

Figure 8-7. Transport Area Prepared (continued)
Notes. 1. All measurements are given in inches.
2. This drawing is not drawn to scale.

① Build three transport area supports as shown above.
② Cut 1 piece of 10- by 38- by ¾-inch plywood to form a base.
③ Cut a 2- by 4- 38-inch piece of lumber and nail it centered on the base.
④ Cut two a 2- by 4- by 44-inch piece of lumber and nail them upright on the base on both sides.
⑤ Cut a 2- by 4- by 38-inch piece of lumber and nail to the uprights 20 inches above the base.
⑥ Cut a 2- by 4- by 65-inch piece of lumber and nail centered on the uprights.
⑦ Cut 2 pieces of 2- by 4- by 16-inch lumber and nail to the flush with the ends.
⑧ Cut 2 pieces of 2- by 4- by 7 ½-inch lumber and nail to 6 inches in from the 16-inch pieces.

Figure 8-8. Transport Area Supports Constructed.
① Position the first transport area roof support on the forward edge of the 77- by 23-inch piece of honeycomb. Secure the support in place with type III nylon cord to convenient places on the top and bottom of the support.

② Position the second transport area roof support centered on the 77- by 23-inch piece of honeycomb. Secure the support in place with type III nylon cord to convenient places on the top and bottom of the support.

③ Position the third transport area roof support on the rear edge of the 77- by 23-inch piece of honeycomb. Secure the support in place with type III nylon cord to convenient places on the top and bottom of the support.

④ Close the transport area doors. Close the exposed “Red Cross” Markers on the outside of the vehicle. Cut an 18- by 18-inch piece of honeycomb. Make an indentation on one side to fit the handles of the door.

⑤ Secure the honeycomb to the doors with two lengths of type III nylon cord in an “X” from the door hinges. Secure the bottom of the honeycomb with a length of type III nylon cord from hinge to hinge.

Figure 8-9. Transport Area Support Positioned
**Note:** Tape the edges of the honeycomb.

1. Tie a 21-inch by 83-inch piece of honeycomb over the windshield with type III nylon cord.
2. Place two 12-inch by 83-inch pieces of honeycomb flush against the windshield.
3. Place an 8-inch by 83-inch piece of honeycomb on the front of the hood.
4. Make cutouts in two 36-inch by 83-inch pieces of honeycomb as shown and place the honeycomb on the hood against the honeycomb placed in step 2 and on top of the honeycomb positioned in step 3.
5. Secure the honeycomb with a length of type III nylon cord. Tie one end to the hood latch through the front lifting point, through the grill, back up to the other front lifting point and to the opposite side latch.

**Figure 8-10. Honeycomb Placed on Front of Ambulance**
6 Cut a 14- by 83-inch piece of honeycomb. Place the honeycomb in front of the vehicle brush guard. Secure with type III nylon cord to convenient points on the load.

Note. This procedure is only required if the vehicle is equipped with a brush guard.

7 Cut six 20- by 25-inch pieces of honeycomb. Cut a ¾- by 11- by 25-inch and a ¾- by 6- by 25-inch piece of plywood. Glue the six pieces of honeycomb together to form a base. Glue the 11-by 25-inch piece of plywood on top, flush against the 25-inch edge of honeycomb. Glue the 6- by 25-inch piece of plywood on top, flush against the 25-inch edge.

Note. May be necessary to add a second ¾- by 6- by 25-inch piece of plywood to fill the gap.

8 Position the stack under the air-conditioning element with the 25-inch plywood edge facing the front of the vehicle. Secure the stack with a length of type III nylon cord horizontally and over the top of the honeycomb on the air-conditioning element.

9 Place a 10- by 21-inch piece of honeycomb on top of air-conditioning element. Trim the edge of the honeycomb to fit the angle of the air-conditioning element. Secure with a length of type III nylon cord from the hood latch to a convenient point on the load.

10 Tape the hood latches (not shown).

Figure 8-10. Honeycomb Placed on Front of Ambulance (continued)
① Pad the air-conditioning exhaust with cellulose wadding and tape.
② Close all exposed “Red Cross” markers on both sides of the vehicle and tape exposed latches with 2-inch cloth-backed tape.
③ Secure the pintle hook with type III nylon cord.
④ Cut a 12- by 78-inch piece of honeycomb. Position it on top of the forward part of the roof. Tape the edges with cloth-backed tape. Secure in place with a length of type III nylon cord.

Figure 8-11. Vehicle Body Prepared
Notes. 1. All measurements are given in inches.
2. This drawing is not drawn to scale.

① Prepare three 48- by 76-inch ¾-inch pieces of plywood as shown.
② Position first board with the cutout around the air-conditioning exhaust. Place the front end of the board on top of the piece of honeycomb from Figure 8-11, step 4.
③ Position second board flush against the previous board. Secure the rear holes of first board to the front holes of second board with a piece of ½-inch tubular nylon webbing on each side.
④ Route a length of ½-inch tubular nylon webbing up through the front hole of second board and secure to the suspension. Repeat for opposite side.
⑤ Route a length of ½-inch tubular nylon webbing up through the center hole of second board and secure to the suspension. Repeat for opposite side.

Figure 8-12. Roof Cover Installed
6. Position the third board against the second board and secure the rear hole of second board to the front holes of third board with a length of ½-inch tubular nylon webbing.

7. Route each end of a length of ½-inch tubular nylon webbing up through front holes and at the 13-inch mark. Lay the excess on top of plywood. It will be used at a later step to secure the attitude control bar (ACB). Repeat for opposite side.

8. Route a length of ½-inch tubular nylon webbing through the hole at the 24-inch mark of the third board and secure to the suspension. Repeat for opposite side.

9. Route a length of ½-inch tubular nylon webbing through the rear hole of the third board and secure to suspension. Repeat for opposite side.

10. Cut a 12- by 76-inch piece of honeycomb. Tape the top edges with cloth-backed tape. Position the pieces flush against the rear of the third board. Secure the piece with a length of type III nylon cord to a convenient point on the load.

Figure 8-12. Roof Cover Installed (continued)
LIFTING AND POSITIONING AMBULANCE

8-6. Lift and position the vehicle as shown in Figure 8-13.

1. Place an attitude control bar (ACB) over the transport area of the ambulance.
2. Route a 3-foot (2-loop), type XXVI nylon sling through each front lifting point on the vehicle’s hood (not shown).
3. Attach a 12-foot (2-loop), type XXVI sling to the 3-foot sling with a large clevis.
4. Remove the rear lifting shackles from the rear of the vehicles. Attach them to the rear wheel hubs. Attach a 16-foot (2-loop), type XXVI nylon sling to the shackle with a large clevis to each side. Route the running ends up through the ACB.
5. Raise the slings and position the ambulance on the platform with a 3-inch overhang from the front of the platform to the brush guard.

*Note.* Overhang will only occur if the vehicle is equipped with a brush guard.

6. Make sure the suspension cross members set squarely on stacks 1 and 3 (not shown).
7. Make sure the frame rail sets squarely on stack 2.

Figure 8-13. Ambulance Positioned
**LASHING AMBULANCE**

8-7. Lash the ambulance to the platform as shown in Figures 8-14 and 8-16.

<table>
<thead>
<tr>
<th>Lashing Number</th>
<th>Tiedown Clevis Number</th>
<th>Instructions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>Pass lashing: Through right bumper shackle</td>
</tr>
<tr>
<td>2</td>
<td>1A</td>
<td>Through left bumper shackle.</td>
</tr>
<tr>
<td>3</td>
<td>4</td>
<td>Around right front lower control arm.</td>
</tr>
<tr>
<td>4</td>
<td>4A</td>
<td>Around left front lower control arm.</td>
</tr>
<tr>
<td>5</td>
<td>5</td>
<td>Through tiedown bracket behind right front coil spring.</td>
</tr>
<tr>
<td>6</td>
<td>5A</td>
<td>Through tiedown bracket behind left front coil spring.</td>
</tr>
</tbody>
</table>

*Figure 8-14. Lashings 1 Through 6 Installed*
### Instructions for Lashings 7 Through 11

<table>
<thead>
<tr>
<th>Lashing Number</th>
<th>Tiedown Clevis Number</th>
<th>Instructions</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>6 and 6A</td>
<td>Pass lashing: Pass a 15-foot lashing through clevis 6A and through its own D-ring. Pass the lashing through the hole in stack 2. Attach the lashing to clevis 6 with a load binder.</td>
</tr>
<tr>
<td>8</td>
<td>7</td>
<td>Through tiedown bracket in front of the right rear coil spring.</td>
</tr>
<tr>
<td>9</td>
<td>7A</td>
<td>Through tiedown bracket in front of left rear coil spring.</td>
</tr>
<tr>
<td>10</td>
<td>9</td>
<td>Around right rear lower control arm.</td>
</tr>
<tr>
<td>11</td>
<td>9A</td>
<td>Around left rear lower control arm.</td>
</tr>
</tbody>
</table>

*Figure 8-15. Lashings 7 Through 11 Installed*
<table>
<thead>
<tr>
<th>Lashing Number</th>
<th>Tiedown Clevis Number</th>
<th>Instructions</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>12</td>
<td>Pass lashing: Through tiedown shackle on right side of bumper.</td>
</tr>
<tr>
<td>13</td>
<td>12A</td>
<td>Through tiedown shackle on left side of bumper.</td>
</tr>
<tr>
<td>14</td>
<td>13</td>
<td>Through tiedown bracket behind right rear coil spring.</td>
</tr>
<tr>
<td>15</td>
<td>13A</td>
<td>Through tiedown bracket behind left rear coil spring.</td>
</tr>
</tbody>
</table>

*Figure 8-16. Lashings 12 Through 15 Installed*
INSTALLING SUSPENSION SYSTEM

8-8. Install the suspension system as given below:

- Install the suspension slings and the deadman’s tie as shown in Figure 8-17.
- Lash the front and rear ACB to the ambulance as shown in Figures 8-18 and Figure 8-19.

1. Position an attitude control bar (ACB) on the first board with the rings facing to the rear of ambulance.

2. Attach a 3-foot (2-loop), type XXVI nylon sling with a large clevis to the tandem link. Attach a 16-foot (2-loop), type XXVI nylon sling to the 3-foot sling with a 5 ½-inch two-point link. Route the free running end through the square hole of the ACB. Repeat for opposite side.

3. Position an ACB on the third board with the rings facing to the front of ambulance.

4. Attach a 20-foot (2-loop), type XXVI nylon sling with a large clevis to the suspension bracket. Route the free running end through the square hole of the ACB. Repeat for opposite side.

5. Raise the slings and pad with felt and tape 12 inches above and below the ACB.

6. Route a length of ½-inch tubular nylon webbing up through the front hole and center hole of first board and over the ACB and secure the ends. Repeat for opposite side.

7. Route the existing free running ends of ½-inch tubular nylon webbing on third board over the ACB and secure the ends. Repeat for opposite side.

8. Raise the slings and install a deadman’s tie according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5.

9. Secure the slings to the ACB with a piece of type III nylon cord.

Figure 8-17. Suspension Slings and Deadman’s Tie Installed
### Lashing Number and Tiedown Clevis Number

<table>
<thead>
<tr>
<th>Lashing Number</th>
<th>Tiedown Clevis Number</th>
<th>Instructions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>Pass lashing: Around front bar of attitude control bar (ACB).</td>
</tr>
<tr>
<td>2</td>
<td>2A</td>
<td>Around front bar of ACB.</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
<td>Through square hole of ACB.</td>
</tr>
<tr>
<td>4</td>
<td>3A</td>
<td>Through square hole of ACB.</td>
</tr>
<tr>
<td>5</td>
<td>8</td>
<td>Through ring of ACB.</td>
</tr>
<tr>
<td>6</td>
<td>8A</td>
<td>Through ring of ACB.</td>
</tr>
</tbody>
</table>

**Figure 8-18. Front ACB lashed to Platform**
### Rear ACB Lashed to Platform

<table>
<thead>
<tr>
<th>Lashing Number</th>
<th>Tiedown Clevis Number</th>
<th>Instructions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>10</td>
<td>Pass lashing: Around ring of attitude control bar (ACB).</td>
</tr>
<tr>
<td>2</td>
<td>10A</td>
<td>Around ring of ACB.</td>
</tr>
<tr>
<td>3</td>
<td>11</td>
<td>Through square hole of ACB.</td>
</tr>
<tr>
<td>4</td>
<td>11A</td>
<td>Through square hole of ACB.</td>
</tr>
<tr>
<td>5</td>
<td>14</td>
<td>Through rear bar of ACB.</td>
</tr>
<tr>
<td>6</td>
<td>14A</td>
<td>Through rear bar of ACB.</td>
</tr>
</tbody>
</table>

**Figure 8-19. Rear ACB lashed to Platform**
STOWING CARGO PARACHUTES

8-9. Prepare and install the parachute stowage platform according to Figure 7-24. Prepare and install three G-11 cargo parachutes according to Figure 8-20.

1. Install three G-11 cargo parachutes according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5.

2. Tie the rear parachute restraint strap to the 38th bushing on each side.

3. Tie the front parachute restraint strap to the 3rd bushing on the suspension link.

Figure 8-20. Parachutes Installed
INSTALLING EXTRACTION SYSTEM

8-10. Install the EFTC extraction system according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5 and as shown in Figure 7-26. If applicable, install the extraction parachute jettison system (EPJS) according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5.

INSTALLING PARACHUTE RELEASE

8-11. Install an M-1 cargo parachute release according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5 and as shown in Figure 8-21.

INSTALLING PROVISIONS FOR EMERGENCY RESTRAINTS

8-12. Install provisions for emergency restraints on the front of the platform according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5.

PLACING EXTRACTION PARACHUTE

8-13. Select the extraction parachute and extraction line needed using the extraction line requirement table in TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5. Rig the extraction line in an extraction line bag according to TM 10-1670-286-20/TO 13C5-2-41. Place the extraction parachute and extraction line on the load for installation in the aircraft. If a drogue parachute and drogue line are required, place them on the platform for installation in the aircraft as well.
① Prepare and install the M-1 cargo parachute release according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5. Install a 25-foot arming wire lanyard.

② Position the release on top of the ambulance roof on board number 3 to the rear of the attitude control bar (ACB).

③ Attach the suspension slings and riser extensions according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5. Fold the excess and secure with type I, ¼-inch cotton webbing. Secure the riser extension together at three places between the release and the parachutes with type I, ¼-inch cotton webbing.

④ Tape the loose deadman’s tie to the plywood with masking tape (not shown).

⑤ Safety tie the connector links to a convenient point on the load with type III nylon cord.

⑥ Safety tie the bottom of the release to a convenient point on the load.

Figure 8-21. M-1 Release Installed

MARKING RIGGED LOAD

8-14. Mark the rigged load according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5 and as shown in Figure 8-22. Complete the Shipper’s Declaration for Dangerous Goods. If the load varies from the one shown, the weight, height, CB, and parachute requirements must be recomputed.

EQUIPMENT REQUIRED

8-15. Use the equipment listed in Table 8-1 on page 8-30 to rig this load.
CAUTION

Make the final rigger inspection required by AR 59-4 and TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/ NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5 before the load leaves the rigging site.

RIGGED LOAD DATA

Weight .................................................................................................................. 11,480 pounds
Maximum Load Allowed ..................................................................................... 13,500 pounds
Height With Three G-11 Parachute ................................................................. 115 inches
Width ..................................................................................................................... 108 inches
Length ................................................................................................................... 261 inches
Overhang: Front (vehicle) ................................................................................ 3 inches
   Rear (extraction force transfer coupling ) ........................................ 18 inches
Center of balance (CB) (from front edge of platform) .............................. 107 inches

Figure 8-22. M997, 4-Litter Ambulance Rigged for Low-Velocity Airdrop
Table 8-1. Equipment Required for Rigging M997 4-Litter Ambulance Rigged for Low-Velocity Airdrop

<table>
<thead>
<tr>
<th>National Stock Number</th>
<th>Item</th>
<th>Quantity</th>
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</thead>
<tbody>
<tr>
<td>8040-00-273-8713</td>
<td>Adhesive, paste, 1-gallon</td>
<td>As required</td>
</tr>
<tr>
<td>1670-00-003-4389</td>
<td>Bar, attitude control</td>
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<tr>
<td>4030-00-090-5354</td>
<td>Clevis, suspension, 1-inch (large)</td>
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<tr>
<td>4020-00-240-2146</td>
<td>Cord, nylon type III, 550-pound</td>
<td>As required</td>
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<tr>
<td>1670-00-434-5785</td>
<td>Coupling, airdrop, extraction force transfer with cable, 16-foot</td>
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<tr>
<td>1670-00-360-0328</td>
<td>Cover, clevis, large</td>
<td>3</td>
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<tr>
<td>8135-00-664-6958</td>
<td>Cushioning material, packaging, cellulose wadding</td>
<td>As required</td>
</tr>
<tr>
<td>8305-00-958-3685</td>
<td>Felt, ½-inch thick</td>
<td>As required</td>
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<tr>
<td>1670-01-183-2678</td>
<td>Leaf, extraction line (line bag)</td>
<td>2</td>
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<tr>
<td>1670-01-064-4452</td>
<td>Line, drogue, 60-foot (1-loop), type XXVI</td>
<td>1</td>
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<tr>
<td>1670-01-107-7651</td>
<td>Line, extraction, 140-foot (3-loop) type XXVI</td>
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<tr>
<td>1670-00-003-1953</td>
<td>3 ¾-inch</td>
<td>2</td>
</tr>
<tr>
<td>1670-00-003-1954</td>
<td>5 ½-inch</td>
<td>2</td>
</tr>
<tr>
<td>2- by 4-inch</td>
<td>Lumber:</td>
<td>As required</td>
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<td>4- by 4-inch</td>
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<td>As required</td>
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<tr>
<td>8d</td>
<td>Nail, steel wire,</td>
<td>As required</td>
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<tr>
<td>16d</td>
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<td>As required</td>
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<tr>
<td>1670-00-753-3928</td>
<td>Pad, energy-dissipating (honeycomb)</td>
<td>25 sheets</td>
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<tr>
<td>Parachute:</td>
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<tr>
<td>Cargo:</td>
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<td>G-11</td>
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<td>3</td>
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<td>Cargo extraction:</td>
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<tr>
<td>22-foot</td>
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</tr>
<tr>
<td>15-foot (drogue)</td>
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<td>1</td>
</tr>
<tr>
<td>Platform, airdrop, type V, 20-foot</td>
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<td></td>
</tr>
<tr>
<td>1670-01-353-8425</td>
<td>Bracket assembly, coupling</td>
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</tr>
<tr>
<td>1670-01-162-2372</td>
<td>Clevis assembly, type V</td>
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<tr>
<td>1670-01-353-8424</td>
<td>Extraction bracket assembly</td>
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<tr>
<td>1670-01-247-2389</td>
<td>Suspension link</td>
<td>(2)</td>
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<tr>
<td>1670-01-162-2381</td>
<td>Tandem link assembly (multipurpose link)</td>
<td>(2)</td>
</tr>
<tr>
<td>5530-00-128-4981</td>
<td>Plywood, ¾-inch</td>
<td>7 sheets</td>
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<tr>
<td>1670-01-097-8816</td>
<td>Release, cargo parachute, M-1</td>
<td>1</td>
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</table>
Table 8-1. Equipment Required for Rigging M997, 4-Litter Ambulance Rigged for Low-Velocity Airdrop (continued)

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<thead>
<tr>
<th>National Stock Number</th>
<th>Item</th>
<th>Quantity</th>
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</thead>
<tbody>
<tr>
<td>1670-01-062-6301</td>
<td>Sling, cargo, airdrop:</td>
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</tr>
<tr>
<td></td>
<td>For suspension:</td>
<td></td>
</tr>
<tr>
<td>1670-01-062-6301</td>
<td>3-foot (2-loop), type XXVI nylon webbing</td>
<td>2</td>
</tr>
<tr>
<td>1670-01-062-6302</td>
<td>16-foot (2-loop), type XXVI nylon webbing</td>
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</tr>
<tr>
<td>1670-01-062-6302</td>
<td>20-foot (2-loop), type XXVI nylon webbing</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>For lifting:</td>
<td></td>
</tr>
<tr>
<td>1670-01-062-6301</td>
<td>3-foot (2-loop), type XXVI nylon webbing</td>
<td>2</td>
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<td>1670-01-062-6303</td>
<td>12-foot (2-loop), type XXVI nylon webbing</td>
<td>2</td>
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<tr>
<td>1670-01-063-7761</td>
<td>16-foot (2-loop), type XXVI nylon webbing</td>
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</tr>
<tr>
<td></td>
<td>For deployment:</td>
<td></td>
</tr>
<tr>
<td>1670-01-062-6304</td>
<td>9-foot (2-loop), type XXVI nylon webbing</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>For riser extension:</td>
<td></td>
</tr>
<tr>
<td>1670-01-062-6313</td>
<td>60-foot (3-loop), type XXVI nylon webbing</td>
<td>3</td>
</tr>
<tr>
<td>5340-00-040-8219</td>
<td>Strap, parachute release multi-cut, with 3 knives</td>
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</tr>
<tr>
<td>7510-00-266-5016</td>
<td>Tape, adhesive, 2-inch</td>
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</tr>
<tr>
<td>1670-00-937-0271</td>
<td>Tiedown assembly, 15-foot</td>
<td>34</td>
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<tr>
<td>1670-01-483-8259</td>
<td>Tow release mechanism (H-Block for C-17)</td>
<td>1</td>
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<td>8305-00-268-2411</td>
<td>Webbing:</td>
<td></td>
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<tr>
<td>8305-00-082-5752</td>
<td>Cotton, ¼-inch, type I</td>
<td>As required</td>
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<tr>
<td>8305-00-263-3591</td>
<td>Nylon, tubular, ½-inch</td>
<td>As required</td>
</tr>
<tr>
<td></td>
<td>Type VIII</td>
<td>As required</td>
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</tbody>
</table>

3-foot (2-loop), type XXVI nylon webbing
16-foot (2-loop), type XXVI nylon webbing
20-foot (2-loop), type XXVI nylon webbing
9-foot (2-loop), type XXVI nylon webbing
60-foot (3-loop), type XXVI nylon webbing
Strap, parachute release multi-cut, with 3 knives
Tape, adhesive, 2-inch
Tiedown assembly, 15-foot
Tow release mechanism (H-Block for C-17)
Webbing:
Cotton, ¼-inch, type I
Nylon, tubular, ½-inch
Type VIII
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Chapter 9

Rigging Communication Control Vehicles With Mobile Microwave Landing System For Airdrop

DESCRIPTION OF LOAD

9-1. The Mobile Microwave Landing System (MMLS) is packed in 11 hard-shell protective cases. The cases are rigged with four 3kw generators and four fuel cans in the beds of an M998 HMMWV truck and an M116A2 ¾-ton trailer. The load is rigged on a 24-foot, type V platform with three G-11 cargo parachutes for low-velocity airdrop.

PREPARING PLATFORM

9-2. Prepare a 24-foot, type V airdrop as shown in Figure 9-1.

Steps:

1. Inspect, or assemble and inspect, a 24-foot, type V airdrop platform as outlined in TM 10-1670-268-20&P/TO 13C7-52-22.
2. Install suspension links to the right and left platform side rails using holes 6, 7, and 8.
3. Install a second set of suspension links to the right and left platform side rails using holes 41, 42, and 43.
4. Install a tandem link to the front of each platform side rail using holes 1, 2, and 3.
5. Install a clevis on bushing 1 of each tandem link.
6. Install a clevis on bushing 3 on the front suspension links.
7. Install clevises on bushings 1, 2, and 4 of each rear suspension links.
8. Starting at the front of each platform side rail, install clevises on the bushings bolted to holes 10, 11, 13, 15, 16, 26, 30, 31, 35, 39, 45, 46, 47, and 48.
9. Starting at the front of each platform, number the clevises 1 through 18 on the right side, and 1A through 18A on the left side.
10. Label the tiedown rings according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/ NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5.

Figure 9-1. Platform Prepared
BUILDING THE HONEYCOMB STACKS

9-3. Build the honeycomb stacks as shown in Figures 9-2 through 9-6.

1. Use an 80-by 24-inch piece of honeycomb to form a base.
2. Center and glue three 54- by 24-inch pieces of honeycomb on the base.
3. Place and glue a ¾- by 54- by 24-inch piece of plywood over the honeycomb placed in step 2 above.
4. Place and glue one 54- by 24-inch piece of honeycomb on top of the plywood placed in step 3 above.
5. Center and glue two 20- by 24-inch pieces of honeycomb on top of the honeycomb placed in step 4 above.
6. Place and glue a ¾- by 20- by 24-inch piece of plywood over the honeycomb placed in step 5 above.
7. Place and glue one 20- by 24-inch piece of honeycomb on top of the plywood placed in step 6 above.

Figure 9-2. Stacks 1 and 3 Prepared
① Glue three 43- by 26-inch pieces of honeycomb flush together to form a base.
② Center and glue three 43- by 18-inch pieces of honeycomb flush on the base.
③ Nail a 43-inch piece of 4- by 4-inch lumber flush with each long side and 1 ½ inches from each edge of a ¾- by 43- by 18-inch piece of plywood. Nail a second ¾- by 43- by 18-inch piece of plywood to the lumber and flush with the bottom piece of plywood. Glue the wood section of the stack flush on the honeycomb placed in step 2 above.
④ Make the cutout as shown in a 43- by 18-inch piece of honeycomb. Glue the honeycomb flush over the plywood.

Figure 9-3. Stack 2 Prepared
Glue twelve 36- by 12-inch pieces of honeycomb flush together.

Figure 9-4. Stack 4 Prepared
Glue six 36- by 12-inch pieces of honeycomb flush together to form the base.

Glue two pieces of 12- by 12-inch honeycomb on each side of the base.

Glue one 7- by 12-inch piece of honeycomb along the inside edge of each 12- by 12-inch stack.

Figure 9-5. Stack 5 Prepared
1. Use eight 12- by 32-inch pieces of honeycomb to form two base stacks of four layers each in a “V” shape. Place the stacks 25 inches apart in the front and 11 inches apart in the rear.

2. Place one 48- by 12-inch piece of honeycomb over the front of the base stacks to form a bridge. Position the honeycomb so that the front edge of the bridge is aligned with the front outside corners of the base stacks.

3. Place one 36- by 12-inch piece of honeycomb over the rear of the base stacks to form a bridge. Position the honeycomb so that the rear edge of the bridge is aligned with the rear outside corners of the base stacks.

4. Use fourteen 12- by 32-inch pieces of honeycomb to form two stacks of seven layers each. Place each stack on top of the bridge and align with each base stack.

Figure 9-6. Stack 6 Prepared
INSTALLING HDDS AND POSITIONING HONEYCOMB STACKS

9-4. Install the HDDS and position the honeycomb stacks as shown in TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5 and in Figure 9-7 below.

1 Pass a 45-inch length of type V webbing or 1-inch tubular nylon webbing through tiedown ring A-1 through a HDDS end loop, and through the second bushing on the right tandem link. Knot the webbing according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5.

2 Perform the same operation on the left side, using tiedown ring B1 and the second bushing on the left tandem link (not shown).

3 Position stack 1 centered and flush with the front edge of the platform.
4 Position stack 2 centered and 35 inches from stack 1.
5 Position stack 3 centered and 45 inches from stack 2.

*Note.* Place the HDDS over stack 3.

6 Position stack 4 centered and 46 inches from stack 3.
7 Position stack 5 centered and flush against the rear of stack 4.
8 Position stack 6 centered and 33 inches to the rear of stack 5.

Figure 9-7. HDDS Installed and Honeycomb Stacks Positioned
PREPARING HMMWV

9-5. Prepare the HMMWV truck according to Figures 1-6 through 1-12 with the following exception:
• Tie the mirrors and cab bows firmly to the seats. Tie the cab doors against the seat backs.

PREPARING THE TRUCK CARGO BED

9-6. Prepare the truck cargo bed as shown in Figure 9-8.

① Place a 30-foot lashing through the front tiedown rings from side to side.
② Place a 30-foot lashing through the two outside center tiedown rings from side to side.
③ Place a 15-foot lashing through the two center tiedown rings. Place a D-ring to the free end.
④ Place two lashings, one on each side through the rear end and center tiedown rings with their free running ends towards the front of the truck.
⑤ Place two lashings, one on each side through the front and center tiedown rings with their free running ends towards the front of the truck.

Figure 9-8. Truck Cargo Bed Prepared
Cover the cargo bed to the rear center tiedown rings with a 36-by-52-inch and a 14-by-52-inch piece of honeycomb.

**Note.** Be sure the 15-foot lashings placed earlier extend under the honeycomb and to the front and rear.

Cover the remainder of the cargo bed and lashings with an 81-by-31 ½-inch piece of honeycomb.

Stand a ¾-by-81-by-34-inch piece of plywood against the front of the cargo bed after beveling the upper corners to conform to the curves of the B-pillar. Drill a ½-inch hole 5 inches in from each upper corner. Secure with ½-inch tubular nylon.

Stand a 31 ½-inch by 9-inch piece of honeycomb along the bed wall in front of the wheel well on each side.

**Figure 9-8. Truck Cargo Bed Prepared (continued)**
LOADING THE TRUCK CARGO BED

9-7. Load the truck cargo bed as shown in Figure 9-9.

1. Place a 77- by 27 \( \frac{1}{2} \)-inch piece of honeycomb on edge in front of the cargo bed.

2. Place the four identically sized hard cases across the front of the cargo bed with three pieces of 26- by 27 \( \frac{1}{2} \)-inch honeycomb in between.

**Note.** Place the cases as shown to ensure proper alignment of handles for lashing.

3. Fasten the 30-foot lashings over boxes, passing them through the box carrying handles.

4. Fasten the 15-foot lashings over the boxes and the plywood at the front of the load.

5. Place two generators, with fuel tanks facing, behind the cases. Pad between the cases and the generators with honeycomb cut to fit. Tie the generator frames together at their corners with type III nylon cord.

*Figure 9-9. Truck Cargo Bed Loaded*
6 Place two fuel cans behind each generator, carrying handles to the outside.

7 Place two more generators behind the fuel cans, facing and tied together as in step 5.

8 Pass the center lashing through the generator frames at the bottom, alternating frame one generator to the other. Fasten the lashing with a load binder between the two sets of generators.

9 Pass the two remaining 15-foot lashings over generators and through the can handles. Fasten them just ahead of the rear generators.

Figure 9-9. Truck Cargo Bed Loaded (continued)
⑩ Place four 22- by 18-inch pieces of honeycomb between the sets of generators.

⑪ Place a 51- by 10 ½-inch piece of honeycomb between the closed tailgate and the generators.

⑫ Tie the folded canopy cover to the tops of the generator frames with type III nylon cord.

Figure 9-9. Truck Cargo Bed Loaded (continued)
13 Tie a $\frac{3}{4}$- by 48- by 53-inch piece of plywood, with holes drilled as shown above over the generators with $\frac{1}{2}$-inch tubular nylon.

14 Tie a piece of cotton duck cloth, cut to fit over the plywood, to convenient points with type III nylon cord.

Figure 9-9. Truck Cargo Bed Loaded (continued)
PREPARING TRAILER CARGO BED

9-8. Prepare the trailer cargo bed as shown in Figure 9-10.

1. Cover the trailer cargo bed between the wheel wells with a layer of honeycomb.

*Note.* Piece sizes are not critical.

2. Completely fill the areas ahead of and behind the wheel wells with honeycomb, up to the top of the well.

3. Fold a 14- by 24-inch piece of felt over each wheel well.

4. Cover the honeycomb and wheel well on each side with a piece of honeycomb 10- by 96-inches (not shown).

5. Position two 30-foot lashings on the honeycomb, 6 inches from each wheel well (not shown).

*Figure 9-10. Trailer Cargo Bed Prepared*
PLACING LOAD IN TRAILER

9-9. Place the load in the trailer as shown in Figure 9-11.

1. Place two CEU battery boxes in the front with two 13-by-1-inch pieces of honeycomb between them. Pad between the boxes and the front trailer wall with felt.

2. Place the two 80-by-15-inch long cases in the remaining space. Pad between them with felt.

3. Fasten the lashings placed earlier over the long cases, passing them through the case handles (not shown).

4. Close the tailgate and pad between the tailgate and cases with felt.

Figure 9-11. Load Placed in Trailer
5 Cover the load in the trailer with two full sheets of honeycomb side by side.

6 Center the largest MMLS case on the trailer.

7 Place the two remaining long cases to the front and rear of the large case. Pad between them with felt.

Figure 9-11. Load Placed in Trailer (continued)
8 Cover two 15- by 53-inch pieces of honeycomb on one side with felt taped in place. Tie them to the large case above the trailer sides with type III nylon cord. Tape all exposed case carrying handles.

9 Tie 55-inch pieces of 2- by 6-inch lumber to the trailer as side boards. Drill one pair of ½-inch holes 4 inches from the front ends. Support to side boards against the trailer with three pieces of 6- by 8-inch honeycomb (not shown).

10 Cover the middle case with a piece of honeycomb to fit.

11 Pass three lashings lengthwise under the trailer and up through the box carrying handles. Pad all sharp contact points with cellulose wadding. Fasten the lashings on top of the load.

12 Pass a 30-foot lashing around the trailer frame and the side boards and through its own D-ring, 6 to 8 inches from the front of the bed on each side. Fasten the lashings together on top of the load.

13 Attach a 15-foot lashing in the same way 12 inches from the rear edge of the bed on each side. Fasten the lashings together on top of the load.

14 Pass two 30-foot lashings under the trailer bed and frame within the fender well avoiding the hand brake cables. Pass them around the side boards and fasten them on top of the load.

Figure 9-11. Load Placed in Trailer (continued)
PLACING TRUCK AND TRAILER ON PLATFORM

9-10. Place the truck and trailer on the platform as shown Figure 9-12.

1. Attach Drive off aids as shown in Figure 1-17. If the wheels cannot be turned you will have to slightly lift the vehicle so the wheel is off the honeycomb.

Note: The use of HDDS is optional but recommended.

2. Be sure the truck suspension cross members rest squarely on stacks 1 and 3.
3. Be sure the frame rails rest squarely on stack 2.
4. Be sure the axle of the trailer rest squarely on stack 5.
5. Make sure the lumber under the trailer rests squarely on stack 4.
6. Ensure the trailer frame rests on stack 6.
7. Tie the trailer stand up with ½-inch tubular nylon.
8. Tie the boards together with ½-inch tubular nylon.

Figure 9-12. Truck and Trailer Placed on Platform
LASHING TRUCK AND TRAILER TO PLATFORM

9-11. Lash the truck and trailer to the platform as shown in Figure 9-13.

<table>
<thead>
<tr>
<th>Lashing Number</th>
<th>Tiedown Number</th>
<th>Clevis Number</th>
<th>Instructions</th>
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<td>1A</td>
<td>Pass lashing: Through left tiedown on front bumper.</td>
</tr>
<tr>
<td>2</td>
<td>1A</td>
<td>2</td>
<td>Through right tiedown on front bumper.</td>
</tr>
<tr>
<td>3</td>
<td>2</td>
<td></td>
<td>Around right front lower control arm.</td>
</tr>
<tr>
<td>4</td>
<td>2A</td>
<td></td>
<td>Around left front lower control arm.</td>
</tr>
<tr>
<td>5</td>
<td>3</td>
<td></td>
<td>Through the tiedown provision in front of right coil spring.</td>
</tr>
<tr>
<td>6</td>
<td>3A</td>
<td></td>
<td>Through the tiedown provision in front of left coil spring.</td>
</tr>
<tr>
<td>7</td>
<td>4</td>
<td></td>
<td>Invert clevis and hook load binder to clevis.</td>
</tr>
<tr>
<td>8</td>
<td>4A</td>
<td></td>
<td>Pass lashing through clevis and through its own D-ring. Attach a D-ring to the free end, bring the lashing through the hole in stack 2 and fasten it to the load binder on the right side.</td>
</tr>
</tbody>
</table>

Figure 9-13. Truck and Trailer Lashed to Platform
### Lashing Number
### Tiedown Clevis Number
### Instructions

<table>
<thead>
<tr>
<th>Lashing Number</th>
<th>Tiedown Clevis Number</th>
<th>Instructions</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>5</td>
<td>Pass lashing: Through tiedown provision in front of right rear coil spring.</td>
</tr>
<tr>
<td>10</td>
<td>5A</td>
<td>Through tiedown provision in front of left rear coil spring.</td>
</tr>
<tr>
<td>11</td>
<td>6</td>
<td>Around right rear lower control arm.</td>
</tr>
<tr>
<td>12</td>
<td>6A</td>
<td>Around left rear lower control arm.</td>
</tr>
<tr>
<td>13</td>
<td>7</td>
<td>Through right tiedown on rear bumper.</td>
</tr>
<tr>
<td>14</td>
<td>7A</td>
<td>Through left tiedown on rear bumper.</td>
</tr>
<tr>
<td>15</td>
<td>8</td>
<td>Through tiedown provision behind right rear coil spring.</td>
</tr>
<tr>
<td>16</td>
<td>8A</td>
<td>Through tiedown provision behind left coil spring.</td>
</tr>
<tr>
<td>17</td>
<td>9</td>
<td>Around the trailer axle.</td>
</tr>
<tr>
<td>18</td>
<td>9A</td>
<td>Around the trailer axle.</td>
</tr>
<tr>
<td>19</td>
<td>10</td>
<td>Through left tiedown provision on rear of trailer.</td>
</tr>
<tr>
<td>20</td>
<td>10A</td>
<td>Through right tiedown provision on rear of trailer.</td>
</tr>
</tbody>
</table>

Figure 9-13. Truck and Trailer Lashed to Platform (continued)
## Lashing Number and Clevis Number Instructions

<table>
<thead>
<tr>
<th>Lashing Number</th>
<th>Tiedown Clevis Number</th>
<th>Instructions</th>
</tr>
</thead>
<tbody>
<tr>
<td>21</td>
<td>11</td>
<td>Pass lashing: Through left tiedown provision on front of trailer.</td>
</tr>
<tr>
<td>22</td>
<td>11A</td>
<td>Through right tiedown provision on front of trailer.</td>
</tr>
<tr>
<td>23</td>
<td>12</td>
<td>Around trailer frame behind leaf spring.</td>
</tr>
<tr>
<td>24</td>
<td>12A</td>
<td>Around trailer frame behind leaf spring.</td>
</tr>
<tr>
<td>25</td>
<td>15</td>
<td>Around the trailer axle.</td>
</tr>
<tr>
<td>26</td>
<td>15A</td>
<td>Around the trailer axle.</td>
</tr>
<tr>
<td>27</td>
<td>17</td>
<td>Through lunette.</td>
</tr>
<tr>
<td>28</td>
<td>17A</td>
<td>Through lunette.</td>
</tr>
</tbody>
</table>

*Figure 9-13. Truck and Trailer Lashed to Platform (continued)*
INSTALLING SUSPENSION SLINGS AND DEADMAN TIE

9-12. Install the suspension slings and deadman tie as shown in Figure 9-14.

1. Attach a 16-foot (2-loop), type XXVI nylon sling to each front suspension link with a large clevis.
2. Attach a 3-foot (2-loop), type XXVI nylon sling to each 16-foot sling with a 3 ¾-inch two-point link.
3. Attach a large clevis to each rear suspension link.
4. Attach an 11-foot (2-loop), type XXVI nylon sling to each of these large clevises with an additional large clevis.
5. Attach a 9-foot (2-loop), type XXVI nylon sling to each 11-foot sling with a 5 ½-inch two-point link.
6. Pad the two-point links with cellulose wadding and tape.
7. Wrap the front suspension slings 21 inches from the clevis with a 6- by 48-inch piece of felt and tape.
8. Wrap the rear suspension slings 33 inches from the clevis with felt as in step 7.
9. Install the deadman tie according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MM0-010 REV 1/TO 13C7-1-5.
10. Tie the suspension slings to the truck and trailer side boards with type III nylon cord.

Figure 9-14. Suspension Slings and Deadman Tie Installed
BUILDING PARACHUTE STOWAGE PLATFORM

9-13. Build parachute stowage platform as shown in Figure 9-15.

1. Nail a 2- by 6- by 28-inch piece of lumber to each side of a ¾- by 48- by 60-inch piece of plywood flush with the front end with 8d nails.
2. Nail a 4- by 4- by 60-inch piece of lumber across the plywood flush to the rear of the 2- by 6-inch lumber.
3. Nail a 2- by 6- by 16 ½-inch piece of lumber flush along each edge of the plywood.
4. Drill a 2-inch hole 3 inches from each corner of the platform and centered in the lumber.
5. Center a 2-inch hole between the corner holes on each side of the platform.

Figure 9-15. Parachute Stowage Platform Built
**INSTALLING PARACHUTE STOWAGE PLATFORM, PREPARING AND STOWING CARGO PARACHUTES**

9-14. Install the parachute stowage platform on top of the support stacks. Prepare and stow the cargo parachutes as shown in Figure 9-16.

1. Place three 18- by 36-inch pieces of honeycomb on the trailer drawbar for support.
2. Place the platform over the drawbar and honeycomb with the shorter portion to the rear.
3. Lash the two rear and center holes to clevises 18 and 18A.
4. Lash the two front and center holes to clevises 14 and 14A.
5. Install and restrain three G-11 parachutes according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/ NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5.
6. Tie the restraint straps to clevises 13 and 13A, and to 16 and 16A.
7. Install the parachute release strap according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/ NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5.

*Figure 9-16. Parachute Stowage Platform Installed and Cargo Parachutes Prepared and Stowed*
INSTALLING PARACHUTE RELEASE

9-15. Prepare, attach, and safety an M-1 release according to TM 4-48.02/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5 and as shown in Figure 9-17.

① Safety the front suspension slings to the truck B-pillar (roll bar) (not shown).

② Center a 26- by 36-inch piece of honeycomb between the truck and the trailer and tie it to convenient points with type III nylon cord. Rest the 2-point links on the honeycomb.

③ Place the M-1 release on an 18- by 12-inch of honeycomb. Tie it to convenient points with type III nylon cord. Connect the riser extensions and suspension slings according to TM 4-48.02/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5.

Figure 9-17. M-1 Cargo Parachute Release Installed
INSTALLING EXTRACTION SYSTEM

9-16. Install the EFTC as shown in Figure 9-18.

① Install the components of the extraction force transfer coupling (EFTC) according to TM 4-48.02/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5. Use the rear mounting holes for the EFTC bracket.

② Attach a 9-foot (2-loop), type XXVI nylon sling to be used as a deployment line.

③ Use a 20-foot EFTC cable and safety the cable to tiedown ring D8 using one turn of type I, ¼-inch cotton webbing.

Figure 9-18. Extraction System Installed
PLACING EXTRACTION PARACHUTE

9-17. Select the extraction parachute and extraction line needed using the extraction line requirements table in TM 4-48.02/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5. Place the extraction line on the load for installation in the aircraft.

INSTALLING PROVISIONS FOR EMERGENCY RESTRAINTS

9-18. Select and install the provisions for the emergency aft restraints according to the emergency aft restraint requirements table in TM 4-48.02/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5.

MARKING RIGGED LOAD

9-19. Mark the rigged load according to TM 4-48.02/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5 and as shown in Figure 9-19. Complete Shipper’s Declaration for Dangerous Goods and affix to load. If the load varies from the one shown, the weight, height, CB, tip off curve, and parachute requirements must be recomputed.

EQUIPMENT REQUIRED

9-20. Use the equipment listed in Table 9-1 on page 9-29 to rig the load shown in Figure 9-19.
CAUTION
Make the final rigger inspection required by TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5 before the load leaves the rigging site.

RIGGED LOAD DATA

<table>
<thead>
<tr>
<th>Weight</th>
<th>13,289 pounds</th>
</tr>
</thead>
<tbody>
<tr>
<td>Height</td>
<td>99 inches</td>
</tr>
<tr>
<td>Width</td>
<td>108 inches</td>
</tr>
<tr>
<td>Length</td>
<td>338 inches</td>
</tr>
<tr>
<td>Overhang: Front (vehicle)</td>
<td>5 inches</td>
</tr>
<tr>
<td>Rear (extraction force transfer coupling)</td>
<td>45 inches</td>
</tr>
<tr>
<td>Center of Balance (CB) (from front edge of platform)</td>
<td>140 inches</td>
</tr>
</tbody>
</table>

Figure 9-19. MMLS in an M998 HMMWV and a ¾-Ton Trailer Rigged on a 24-Foot Type V Platform for Low-Velocity Airdrop
Table 9-1. Equipment Required for Rigging the MMLS in an M998 HMMWV and a ¾-Ton Trailer Rigged on a 24-Foot, Type V Airdrop Platform for Low-Velocity Airdrop

<table>
<thead>
<tr>
<th>National Stock Number</th>
<th>Item</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>8040-00-273-8713</td>
<td>Adhesive, paste, 1-gallon</td>
<td>As required</td>
</tr>
<tr>
<td>1670-01-035-6054</td>
<td>Bridle (for line bag)</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Clevis, suspension:</td>
<td></td>
</tr>
<tr>
<td>4030-00-090-5354</td>
<td>1-in (large)</td>
<td>7</td>
</tr>
<tr>
<td>4030-00-678-8562</td>
<td>¾-in (medium)</td>
<td>6</td>
</tr>
<tr>
<td>8305-00-242-3593</td>
<td>Cloth, cotton duck, 60-in</td>
<td>As required</td>
</tr>
<tr>
<td>4020-00-240-2146</td>
<td>Cord, nylon, type III, 550-lb</td>
<td>As required</td>
</tr>
<tr>
<td>1670-00-434-5787</td>
<td>Coupling, airdrop extraction force transfer cable, 20-ft</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Cover:</td>
<td></td>
</tr>
<tr>
<td>1670-00-360-0328</td>
<td>Clevis, large</td>
<td>3</td>
</tr>
<tr>
<td>1670-00-360-0329</td>
<td>Link, type IV</td>
<td>3</td>
</tr>
<tr>
<td>8135-00-664-6958</td>
<td>Cushioning material, packaging, cellulose wadding</td>
<td>As required</td>
</tr>
<tr>
<td>8305-00-958-3685</td>
<td>Felt, ¼-in thick</td>
<td>As required</td>
</tr>
<tr>
<td>1670-01-183-2678</td>
<td>Leaf, extraction line (line bag)</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Line extraction:</td>
<td></td>
</tr>
<tr>
<td>1670-01-062-6313</td>
<td>60-ft (3-loop), type XXVI (C-130)</td>
<td>1</td>
</tr>
<tr>
<td>1670-01-107-7651</td>
<td>140-ft (3-loop), type XXVI (for C-141, C-5 or C-17)</td>
<td>1</td>
</tr>
<tr>
<td>1670-01-064-4452</td>
<td>60-ft (1-loop), type XXVI with towplate link (for C-17) Drogue Line</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Link assembly:</td>
<td></td>
</tr>
<tr>
<td>1670-00-783-5988</td>
<td>Type IV</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Two-point:</td>
<td></td>
</tr>
<tr>
<td>5306-00-435-8994</td>
<td>Bolt, 1-in diam, 4-in long</td>
<td>2</td>
</tr>
<tr>
<td>5310-00-232-5165</td>
<td>Nut, 1-in, hexagonal</td>
<td>2</td>
</tr>
<tr>
<td>1670-00-003-1953</td>
<td>Plate, side 3 ¾-in</td>
<td>2</td>
</tr>
<tr>
<td>5365-00-007-3414</td>
<td>Spacer, large</td>
<td>2</td>
</tr>
<tr>
<td>5315-00-010-4659</td>
<td>Nail, steel wire, 8d</td>
<td>As required</td>
</tr>
<tr>
<td>1670-00-753-3928</td>
<td>Pad, energy-dissipating, (honeycomb), 3- by 36- by 96-in:</td>
<td>27 sheets</td>
</tr>
<tr>
<td></td>
<td>Parachute, cargo</td>
<td></td>
</tr>
<tr>
<td>1670-01-016-7841</td>
<td>G-11B</td>
<td>3</td>
</tr>
<tr>
<td>1670-01-063-3716</td>
<td>Parachute, cargo extraction</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>22-ft</td>
<td></td>
</tr>
<tr>
<td>1670-01-063-3715</td>
<td>Drogue (for C-17)</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>15-ft</td>
<td></td>
</tr>
<tr>
<td>1670-01-162-2372</td>
<td>Platform, airdrop, type V, 24-ft:</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Clevis assembly (type V)</td>
<td>(30)</td>
</tr>
</tbody>
</table>
Table 9-1. Equipment Required for Rigging the MMLS in an M998 HMMWV and a ¾-Ton Trailer Rigged on a 24-Foot, Type V Airdrop Platform for Low-Velocity Airdrop (continued)

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
<th>Quantity</th>
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<tbody>
<tr>
<td>1670-01-353-8424</td>
<td>Extraction bracket assembly</td>
<td>(1)</td>
</tr>
<tr>
<td>1670-01-353-8425</td>
<td>Bracket assembly, coupling</td>
<td>(1)</td>
</tr>
<tr>
<td>1670-01-247-2389</td>
<td>Suspension link</td>
<td>(2)</td>
</tr>
<tr>
<td>1670-01-162-2381</td>
<td>Tandem link assembly (multipurpose link)</td>
<td>(2)</td>
</tr>
<tr>
<td>Lumber:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5510-00-220-6146</td>
<td>2- by 4-</td>
<td>As required</td>
</tr>
<tr>
<td>5510-00-220-6274</td>
<td>4- by 4-</td>
<td>As required</td>
</tr>
<tr>
<td>5510-00-220-6148</td>
<td>2- by 6-</td>
<td>As required</td>
</tr>
<tr>
<td>5530-00-128-4981</td>
<td>Plywood, ¾-in</td>
<td>4 sheets</td>
</tr>
<tr>
<td>1670-01-097-8816</td>
<td>Release, cargo parachute, M-1</td>
<td>1</td>
</tr>
<tr>
<td>Sling, cargo, airdrop:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5340-01-062-7761</td>
<td>16-ft (2-loop), type XXVI</td>
<td>2</td>
</tr>
<tr>
<td>1670-01-062-6301</td>
<td>3-ft (2-loop), type XXVI</td>
<td>2</td>
</tr>
<tr>
<td>1670-01-062-6304</td>
<td>9-ft (2-loop), type XXVI</td>
<td>2</td>
</tr>
<tr>
<td>1670-01-063-7760</td>
<td>11-ft (2-loop), type XXVI</td>
<td>2</td>
</tr>
<tr>
<td>For lifting:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1670-01-062-6304</td>
<td>9-ft (2-loop), type XXVI</td>
<td>2</td>
</tr>
<tr>
<td>1670-01-062-6303</td>
<td>12-ft (2-loop), type XXVI</td>
<td>2</td>
</tr>
<tr>
<td>For deployment:</td>
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<td></td>
</tr>
<tr>
<td>1670-01-062-6304</td>
<td>9-ft (2-loop), type XXVI</td>
<td>1</td>
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<tr>
<td>For riser extension:</td>
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<td></td>
</tr>
<tr>
<td>1670-01-062-6302</td>
<td>20-ft (2-loop), type XXVI</td>
<td>6</td>
</tr>
<tr>
<td>1670-00-040-8219</td>
<td>Strap, parachute release, multi-cut, comes with 3 knives</td>
<td>2</td>
</tr>
<tr>
<td>7501-00-266-5016</td>
<td>Tape, adhesive, 2-in</td>
<td>As required</td>
</tr>
<tr>
<td>1670-01-344-0825</td>
<td>Vehicle drive-off aid (HDDS)</td>
<td>1</td>
</tr>
<tr>
<td>1670-00-937-0271</td>
<td>Tiedown assembly, 15-ft</td>
<td>36</td>
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<tr>
<td>Webbing:</td>
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<td></td>
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<tr>
<td>8305-00-268-2411</td>
<td>Cotton, ¼-inch, type I</td>
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<tr>
<td>5305-00-082-5752</td>
<td>Nylon, tubular, ¼-in</td>
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<tr>
<td>8305-00-263-3591</td>
<td>Type VIII</td>
<td>As required</td>
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Legend

<table>
<thead>
<tr>
<th>Unit</th>
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<tbody>
<tr>
<td>ft</td>
<td>Foot</td>
</tr>
<tr>
<td>in</td>
<td>Inch</td>
</tr>
<tr>
<td>lb</td>
<td>pound</td>
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## Glossary

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>CB</td>
<td>center of balance</td>
</tr>
<tr>
<td>EFTC</td>
<td>extraction force transfer coupling</td>
</tr>
<tr>
<td>FM</td>
<td>field manual</td>
</tr>
<tr>
<td>HMMWV</td>
<td>high-mobility, multipurpose, wheeled vehicle</td>
</tr>
<tr>
<td>IAP</td>
<td>integrated armor package</td>
</tr>
<tr>
<td>LTACFIRE</td>
<td>lightweight tactical fire direction system</td>
</tr>
<tr>
<td>MCRP</td>
<td>Marine Corps Reference Publication</td>
</tr>
<tr>
<td>NSN</td>
<td>National Stock Number</td>
</tr>
<tr>
<td>PADS</td>
<td>position and azimuth determining system</td>
</tr>
<tr>
<td>TM</td>
<td>technical manual</td>
</tr>
<tr>
<td>TO</td>
<td>technical order</td>
</tr>
<tr>
<td>TRADOC</td>
<td>U.S. Army Training and Doctrine Command</td>
</tr>
</tbody>
</table>
This page intentionally left blank.
References

REQUIRED PUBLICATIONS

These documents must be available to intended users of this publication.

ADR 1-02. Terms and Military Symbols. 7 December 2015.


MCRP 5-12C. Marine Corps Supplement to the Department of Defense Dictionary of Military and Associated Terms. 16 November 2011.

RELATED PUBLICATIONS

These documents contain relevant supplemental information.

MULTI-SERVICE PUBLICATIONS

Most Army doctrinal publications are available online: http://www.apd.army.mil. Most Air Force doctrinal publications are available online: http://www.e-publishing.af.mil/

AR 59-4/OPNAVINST 4630.24C/AFJ 13-210(I)/MCO 13480.1B, Joint Airdrop Inspection Records, Malfunction Investigations and Activity Reporting, 8 April 2008


TM 4-48.02/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5, Airdrop of Supplies and Equipment: Rigging Airdrop Platforms. 15 March 2016

TM 4-48.16/MCRP 4-11.3B/TO 13C7-18-41, Airdrop of Supplies and Equipment: Rigging Ammunition. 15 March 2016

TM 9-2320-280-10, Operator’s Manual for Truck, Utility: Cargo/Troop Carrier 1-1/4 Ton 4X4 Series. 27 September 2013


PRESCRIBED FORMS

None.

REFERENCED FORMS


DA Form 2028. Recommended Changes to Publication and Blank Forms

DD Form 1748. Joint Airdrop Inspection Record (Platforms)
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| Building and Positioning Honeycomb Stacks, 7-3 |
| Building Parachute Stowage Platform, 9-23 |
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