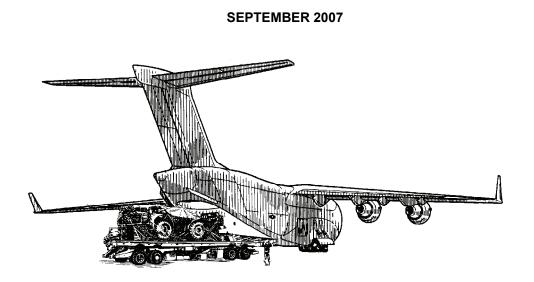
FM 4-20.152 (FM 10-552) TO 13C7-22-61

# Airdrop of Supplies and Equipment: Rigging Dragon and Javelin Missiles



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# Headquarters, Department of the Army Department of the Air Force

PCN: 32001094900

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Field Manual No. 4-20.152 (10-552) Technical Order No. 13C7-22-61 Headquarters Department of the Army Department of the Air Force Washington, DC, 6 September 2007

# AIRDROP OF SUPPLIES AND EQUIPMENT: RIGGING DRAGON AND JAVELIN MISSILES

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# Preface

#### **SCOPE**

This manual tells and shows how to prepare and rig the Dragon and Javelin antitank/assault missiles for low-velocity airdrop from C-130 or C-17 aircraft. This manual is designed for all parachute riggers.

#### **USER INFORMATION**

The proponent of this publication is the United States Training and Doctrine Command TRADOC. You are encouraged to report any errors or omissions and to suggest ways of making this a better manual. Army personnel, send your comments on DA Form 2028 directly to:

Director Aerial Delivery and Field Services Department USA Quartermaster Center and School 710 Adams Avenue Fort Lee, Virginia 23801-1502

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This publication applies to the Active Army, the Army National Guard/Army National Guard of the United States, and the United States Army Reserve unless other stated.

Unless this publication states otherwise, masculine nouns and pronouns do not refer exclusively to men

# Introduction

#### **DESCRIPTION OF ITEMS**

The descriptions of the items rigged in this manual are given below:

#### **Dragon or Dragon II Missiles**

- Nine one-round containers are rigged in an A-22 cargo bag on a standard skid for a low-velocity airdrop.
- One 15-round container is rigged in an A-22 cargo sling on a standard skid for a low-velocity airdrop.
- Thirty-six one-round containers are rigged on an 8-foot type V platform for a low-velocity airdrop.
- Four 15-round containers are rigged on an 8-foot type V platform for a low-velocity airdrop.
- Four A-22 cargo bags with nine one-round containers in each A-22 cargo bag are rigged on an 8foot type V platform for low-velocity airdrop.
- Four A-22 cargo slings with four 15-round containers are rigged on an 8-foot type V platform for low-velocity airdrop.

#### **Javelin Missiles**

- Rigging Two-Round A-7Adoor bundle for low-velocity airdrop.
- Rigging Four-Round A-7A door bundle for low-velocity airdrop.
- Rigging Nine-Round Container Delivery System (CDS) rigged in an A-22 stretch container for low-velocity airdrop.
- Rigging Javelin Missile Containers (plastic) in an A-22 container cargo bag assembly for low-velocity airdrop.
- Rigging thirty-Six Javelin Rounds as a mass supply load on a 12-foot type V, platform for low-velocity airdrop.
- Rigging Javelin Missile Containers (plastic) on an 8-foot, type V platform for low-velocity airdrop.
- Rigging Javelin Missile Containers on a 16-foot, type V platform for low-velocity airdrop.

#### **SPECIAL CONSIDERATIONS**

Special considerations for this manual are given below.

• The loads covered in this manual may include hazardous materials as defined in AFMAN(I) 24-204/TM 38-250. If included, the hazardous materials must be packaged, marked, and labeled as required by AFMAN(I) 24-204/TM 38-250.

#### CAUTION

Only ammunition listed in 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.

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# Chapter 1 Rigging Dragon Missiles in an A-22 Cargo Bag

# SECTION I-RIGGING NINE ONE-ROUND CONTAINERS

### **DESCRIPTION OF LOAD**

1-1. Nine one-round containers (Figure 1-1) are rigged in an A-22 cargo bag on a standard skid. Each container is 47  $\frac{1}{2}$  inches long, 16 inches wide, 16 inches high, and weighs 67 pounds. The rigged load uses either one G-12 or three G-14 cargo parachutes for low-velocity airdrop from a C-130 or C-17 aircraft.

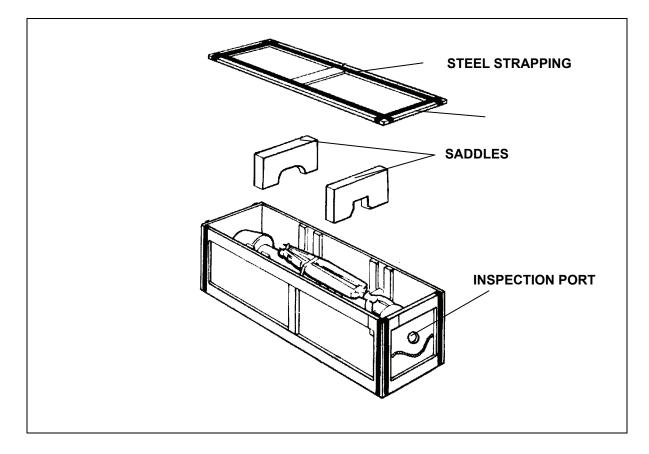


Figure 1-1. Dragon Missile in a One-Round Container

# **RIGGING LOAD**

1-2. Rig nine one-round containers in an A-22 cargo bag according to FM 4-20.103/MCRP 4-11.3C/TO 13C7-1-11 and as shown in Figures 1-2 through 1-4.

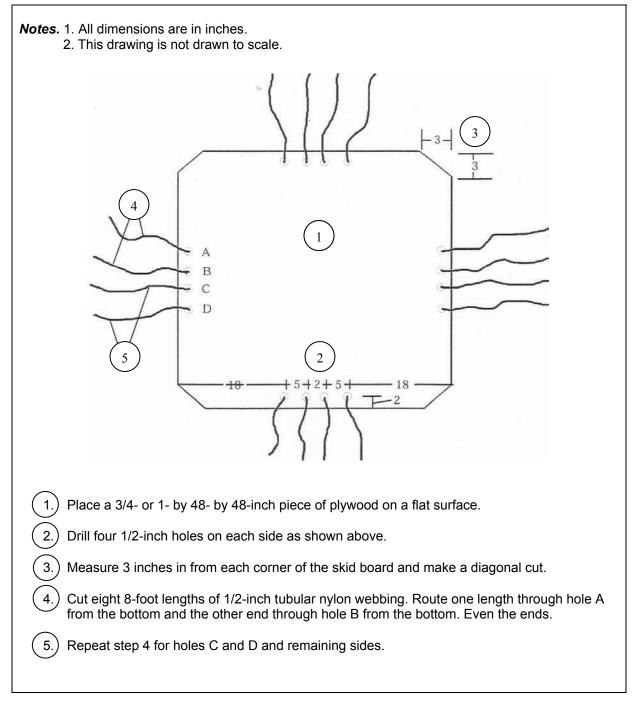


Figure 1-2. Skid Prepared and Honeycomb Stacks Positioned

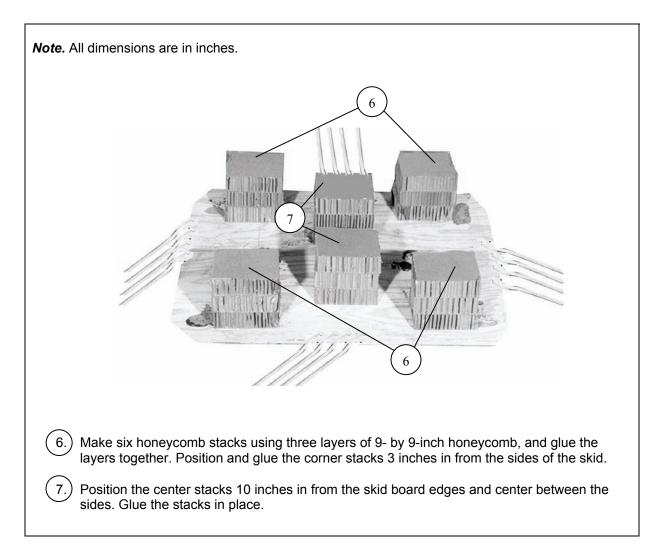


Figure 1-2. Skid Prepared and Honeycomb Stacks Positioned (Continued)

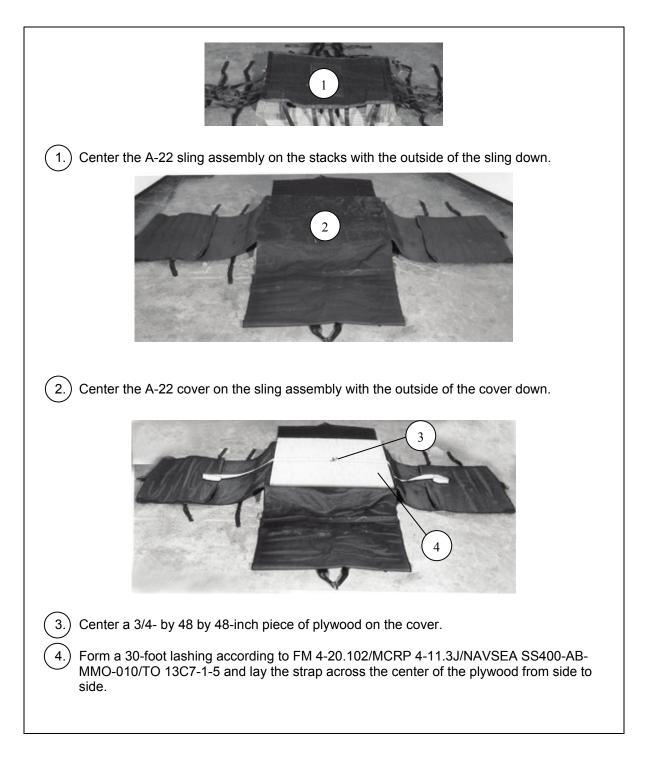


Figure 1-3. Cargo Bag, Plywood, and Tiedown Strap Positioned

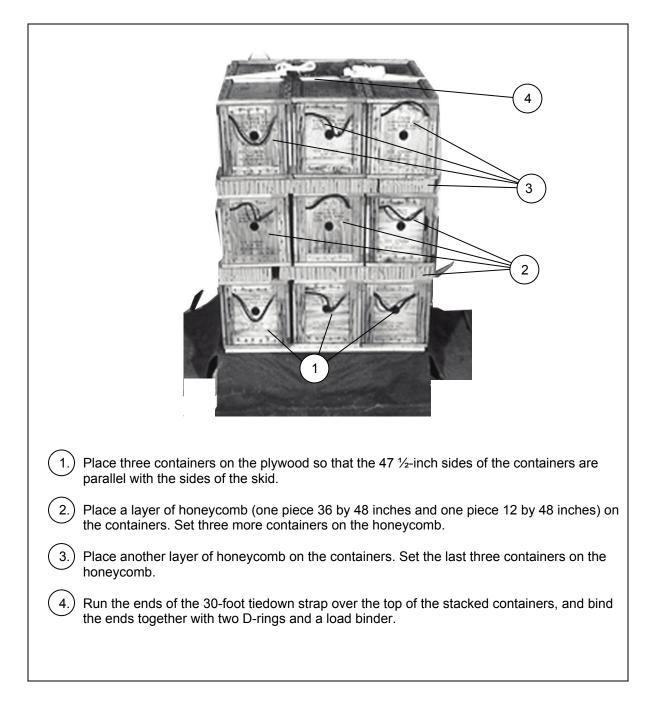


Figure 1-4. Nine One-Round Containers Positioned

# **CLOSING CARGO BAG**

1-3. Close the A-22 cargo bag according to the steps in FM 4-20.103/MCRP 4-11.3C/TO 13C7-1-11.

## **INSTALLING PARACHUTES**

1-4. Prepare and stow one G-12 cargo parachute with a 68-inch pilot parachute or three G-14 cargo parachutes according to FM 4-20.103/MCRP 4-11.3C/TO 13C7-1-11.

*Note.* This rigged A-22 cargo bag weighs 863 pounds. It is 81 inches high, 53  $\frac{1}{2}$  inches wide, and 48 inches long.

### **EQUIPMENT REQUIRED**

1-5. The equipment needed to rig nine one-round containers is listed in Table 1-1.

Table 1-1. Equipment Required for Rigging Nine One–Round Containers in an A-22 Cargo Bag
for Low-Velocity Airdrop

National Stock Number	Item	Quantity
8040-00-273-8713	Adhesive, paste 1-gallon	As required
8465-00-587-3421	Bag, cargo, aerial delivery, type A-22	1
4030-00-678-8562	Clevis Assembly, suspension, cargo	1
4020-00-240-2146	Cord, nylon, type III	As required
1670-00-217-2421	Link Assembly, parachute connector, removable, L Bar	3
1670-00-753-3928	Pad, energy-dissipating, honeycomb	2 sheets
1670-00-216-7297	Pilot Chute, cargo type, 68-in diam	1
1670-00-999-2658	Parachute, cargo, 34-foot, G-14	3
1670-01-065-3755	Parachute, cargo, 64-foot, G-12	1
5530-00-128-4981	Plywood, 3/4- by 48- by 48-inch	1 sheet
1670-00-883-1654	Skid, cargo bag, platform	1
1670-00-738-5878	Strap, connector, extraction, 60-inch	3
1670-00-738-5879	Strap, connector, extraction, 120-inch	3
8305-00-082-5752	Tape, adhesive, 2-inch	As required
8305-00-263-3591	Tie-down assembly, 15-foot	2
	Webbing:	
8305-00-268-2411	Cotton, 1/4-inch, type I	As required
8305-00-082-5752	Nylon: Tubular, 1/2-inch	As required

# SECTION II-RIGGING ONE 15-ROUND CONTAINER

# **DESCRIPTION OF LOAD**

1-6. One 15-round container (Figure 1-5) is rigged in an A-22 cargo sling on a standard skid. The container is 49 inches long, 37 inches wide, 67 inches high, and weighs 695 pounds. The rigged load uses either one G-12, or three G-14 cargo parachutes. The rigged load also uses four extra suspension webs.



Figure 1-5. One 15-Round Dragon Missile Container

## **RIGGING LOAD**

1-7. Rig one 15-round Dragon missile container in an A-22 cargo sling assembly according to FM 4-20.103/MCRP 4-11.3C/TO 13C7-1-11 and as shown in Figures 1-6 through 1-8.

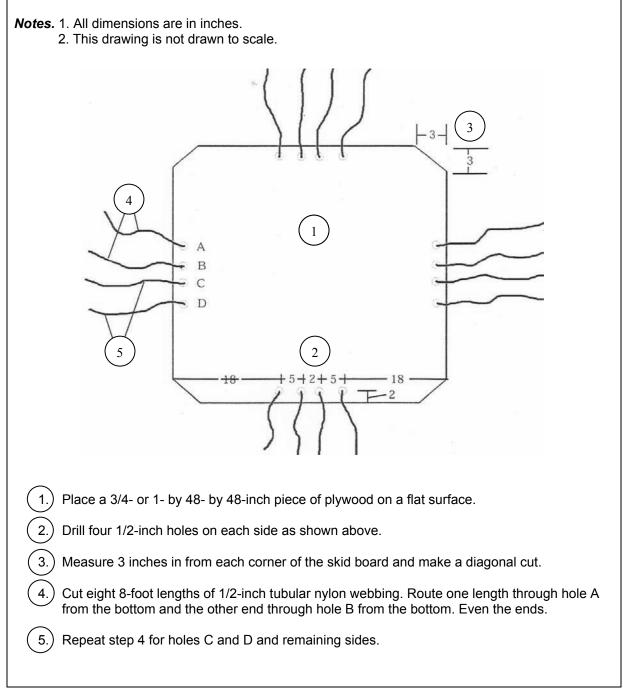


Figure 1-6. Skid Prepared and Honeycomb Stacks Positioned

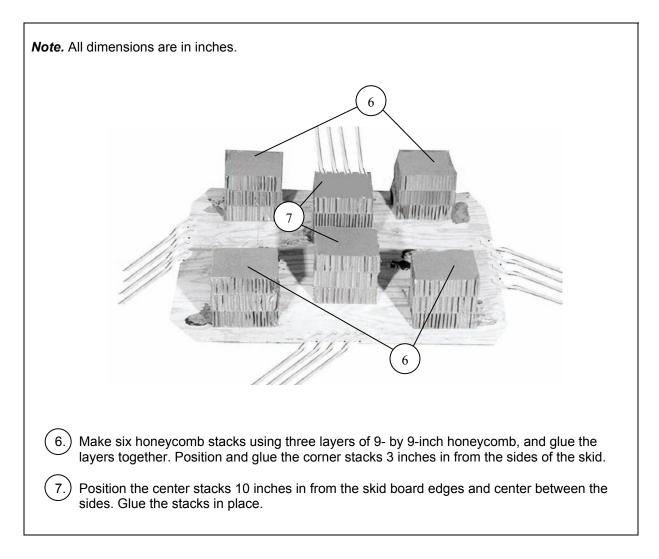


Figure 1-6. Skid Prepared and Honeycomb Stacks Positioned (Continued)

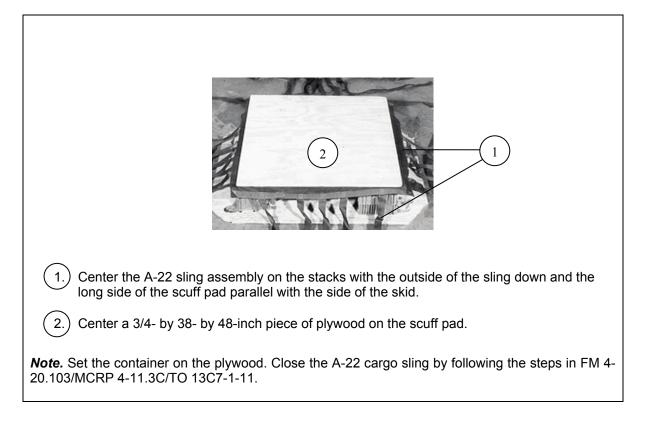


Figure 1-7. A-22 Cargo Sling and Plywood Positioned

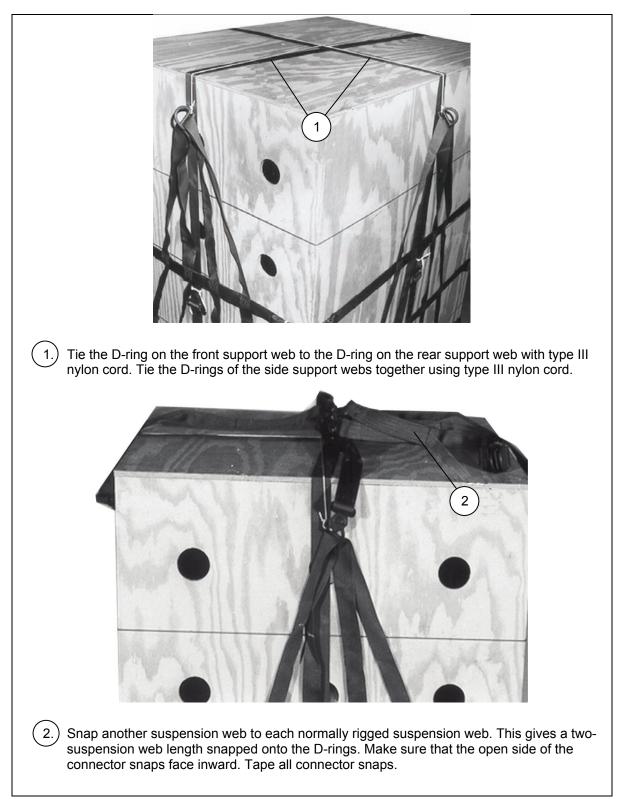


Figure 1-8. Container Positioned, and Cargo Sling Closed

# **CLOSING CARGO BAG**

1-8. Close the A-22 cargo bag according to the steps in FM 4-20.103/MCRP 4-11.3C/TO 13C7-1-11.

## **INSTALLING PARACHUTES**

1-9. Prepare and stow one G-12 cargo parachute with a 68-inch pilot parachute or three G-14 cargo parachutes according to FM 4-20.103/MCRP 4-11.3C/TO 13C7-1-11.

*Note.* This A-22 cargo sling weighs 925 pounds. It is 95 inches high, 53  $\frac{1}{2}$  inches wide, and 49 inches long.

## **EQUIPMENT REQUIRED**

1-10. The equipment needed to rig one 15-round container is listed in Table 1-2.

# Table 1-2. Equipment Required for Rigging One 15-Round Container in an A-22 Cargo Bag for Low-Velocity Airdrop.

National Stock Number	Item	Quantity
8040-00-273-8713	Adhesive, paste 1-gal	As required
8465-00-587-3421	Bag, cargo, aerial delivery, type A-22	1
4030-00-678-8562	Clevis Assembly, suspension, cargo	1
4020-00-240-2146	Cord, nylon, type III	As required
1670-00-217-2421	Link Assembly, parachute connector, removable, L Bar	3
1670-00-753-3928	Pad, energy-dissipating, honeycomb	1 sheet
1670-00-216-7297	Pilot Chute, cargo type, 68-in diameter	1
1670-00-999-2658	Parachute, cargo, 34-ft, G-14	3
1670-01-065-3755	Parachute, cargo, 64-ft, G-12	1
5530-00-128-4981	Plywood, 3/4- by 38- by 48-in	1 sheet
1670-00-883-1654	Skid, cargo bag, platform	1
1670-00-738-5878	Strap, connector, extraction, 60-in	3
1670-00-738-5879	Strap, connector, extraction, 120-in	3
1670-00-360-0560	Strap, webbing, suspension, A-22 cargo bag	8
8305-00-082-5752	Tape, adhesive, 2-inch	As required
8305-00-263-3591	Tie-down assembly, 15-foot	2
	Webbing:	
8305-00-268-2411	Cotton, 1/4-inch, type I	As required
8305-00-082-5752	Nylon: Tubular, 1/2-inch	As required

#### Chapter 2

# Rigging Dragon or Dragon II Missile Containers on an 8-Foot, Type V Platform for Low-Velocity Airdrop

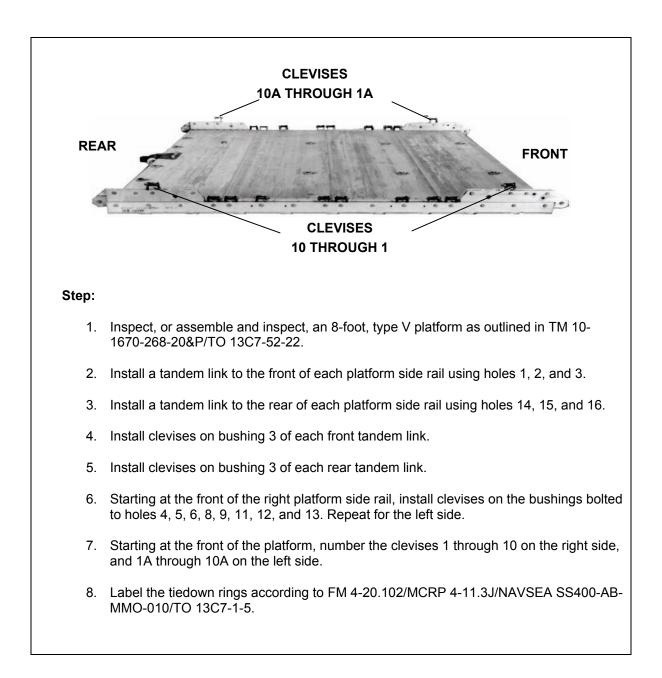
#### **SECTION I-RIGGING 36 ONE-ROUND CONTAINERS**

#### **DESCRIPTION OF LOAD**

2-1. Thirty-six Dragon II missiles in one-round containers are rigged on an 8-foot, type V platform with one G-11 cargo parachute for low-velocity airdrop (LVAD) from a C-130 or C-17 aircraft. Each container is  $47 \frac{1}{2}$  inches long, 16 inches wide, 16 inches high, and weighs 67 pounds.

#### **PREPARING PLATFORM**

2-2. Prepare an 8-foot, type V platform using 4 tandem links and 20 clevises as shown in Figure 2-1.



#### Figure 2-1. Platform Prepared

# **BUILDING AND PLACING HONEYCOMB STACKS**

2-3. Prepare and position the honeycomb stacks as shown in Figure 2-2.

#### Notes.

1. Measurements from the front of the platform are taken from the front edge of the first panel. 2. Measurements from the rear edge of the platform are taken from the rear edge of the last panel.

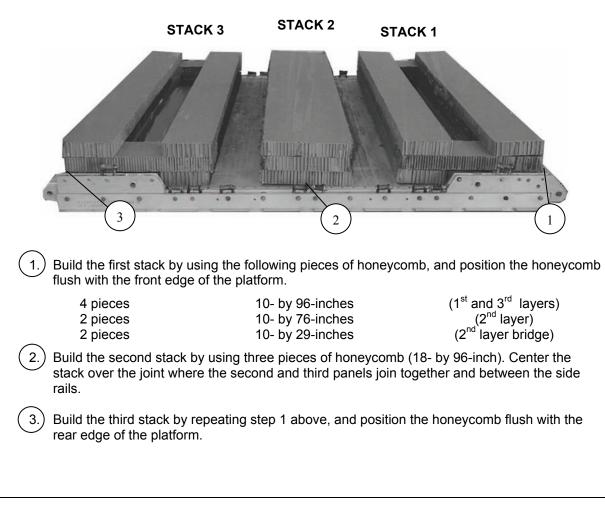


Figure 2-2. Honeycomb Stacks Positioned

# POSITIONING AND LASHING MISSILE CONTAINER GROUPS 1 THROUGH 4

2-4. Position and lash the missile container groups 1 through 4 as shown in Figures 2-3 through 2-5.

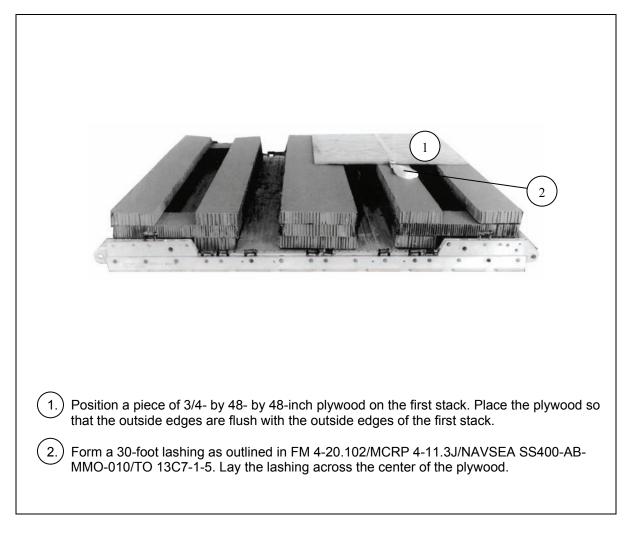


Figure 2-3. Plywood and Lashing Positioned

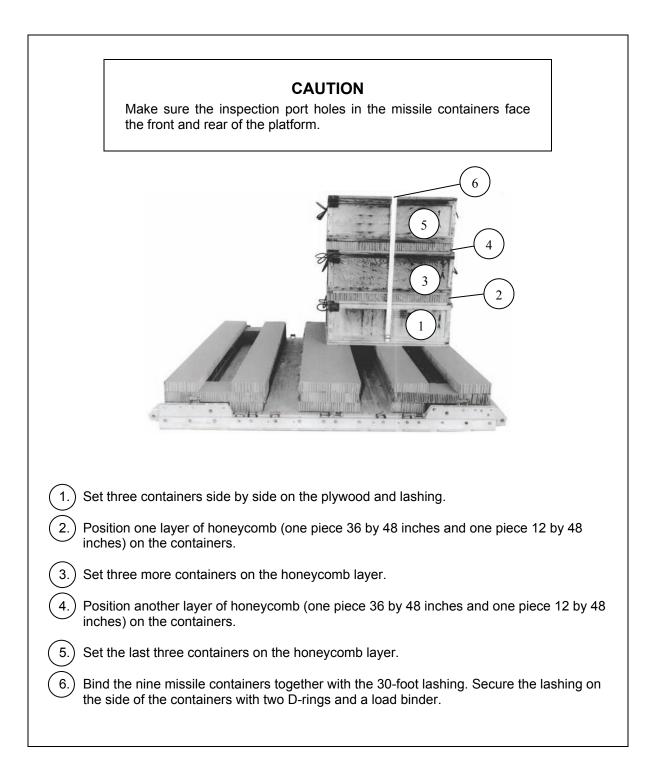


Figure 2-4. First Missile Container Group Positioned, Stacked, and Lashed

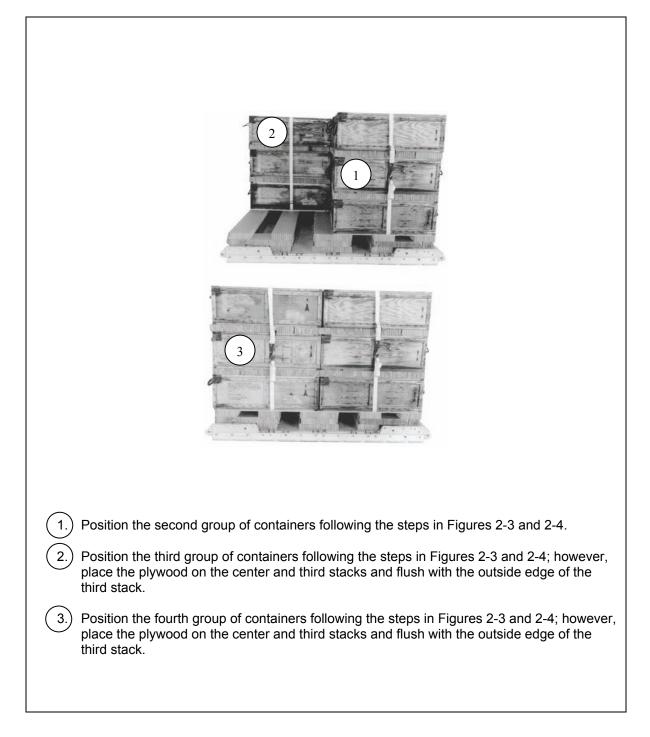


Figure 2-5. Missile Container Groups 2 and 3 and Positioned and Lashed

# POSITIONING AND LASHING MISSILE CONTAINERS

2-5. Position the lashings as shown in Figure 2-6 and lash the containers to the platform as shown in Figures 2-7 through 2-9. Install and safety the lashings as outlined in FM 4-20.102/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010/TO 13C7-1-5.

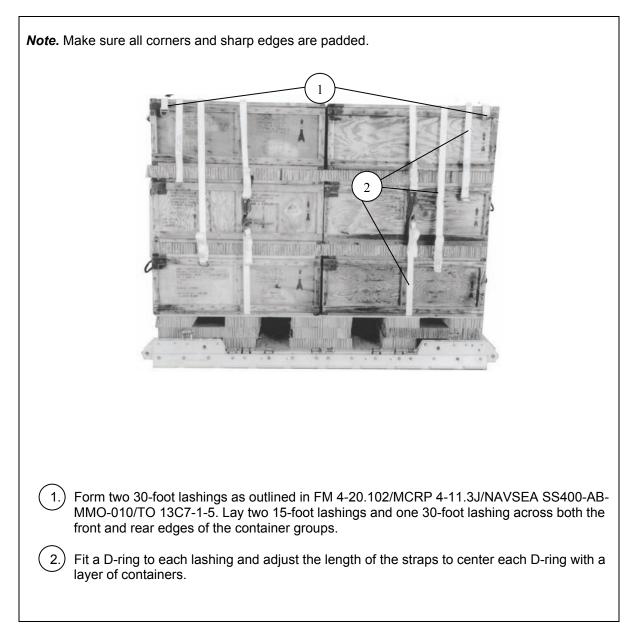


Figure 2-6. Lashings Positioned

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Lashing Number	Tiedown Clevis Number	Instructions
1	2 and 2A	Run a 15-foot lashing from clevis 2 and a 15-foot lashing from clevis 2A. Pass the lashings through the D-rings and containers carrying handles centered on the bottom container layer. Secure the lashings on the front using two D-rings and a load binder.
2	5 and 5A	Run a 15-foot lashing from clevis 5 and a 15-foot lashing from clevis 5A. Pass the lashings through the D-rings and containers carrying handles centered on the middle container layer. Secure the lashings on the front
		using two D-rings and a load binder.

Figure 2-7. Lashings 1 through 3 Installed

Lashing Number	Tiedown Clevis Number	Instructions
4	4 and 4A	Run a 15-foot lashing from clevis 4 and a 15-foot lashing from clevis 4A. Pass the lashings through the D-rings and containers carrying handles centered on the top container layer. Secure the lashings on the rear using two D-rings and a load binder.
5	6 and 6A	Run a 15-foot lashing from clevis 6 and a 15-foot lashing from clevis 6A. Pass the lashings through the D-rings and containers carrying handles centered on the middle container layer. Secure the lashings on the rear using two D-rings and a load binder.
6	9 and 9A	Run a 15-foot lashing from clevis 9 and a 15-foot lashing from clevis 9A. Pass the lashings through the D-rings and containers carrying handles centered on the bottom container layer. Secure the lashings on the rear using two D-rings and a load binder.

#### Figure 2-8. Lashings 4 through 6 Installed

Γ

	8	
Lashing Number	Tiedown Clevis Number	Instructions
7	1 and 10A	Run a 15-foot lashing from clevis 1 and a 15-foot lashing from clevis 10A. Pass the lashings around the bottom ends of the containers and through the bottom and top containers carrying handles and up over the load. Secure the lashings on the top using two D-rings and a load binder.
		Secure the lastings on the top using two D-rings and a load binder.
8	1A and 10	Run a 15-foot lashing from clevis 1A and a 15-foot lashing from clevis 10. Pass the lashings around the bottom ends of the containers and through the bottom and top containers carrying handles and up over the load. Secure the lashings on the top using two D-rings and a load binder.
8	1A and 10 3 and 3A	Run a 15-foot lashing from clevis 1A and a 15-foot lashing from clevis 10. Pass the lashings around the bottom ends of the containers and through the bottom and top containers carrying handles and up over the load.

#### Figure 2-9. Lashings 7 through 10 Installed

# INSTALLING SUSPENSION SLINGS AND DEADMAN'S TIE

2-6. Install and safety four 16-foot (2-loop), type XXVI nylon slings and four large clevises. Attach each suspension sling to a clevis and attach one clevis to all four tandem links as shown in Figure 2-10.

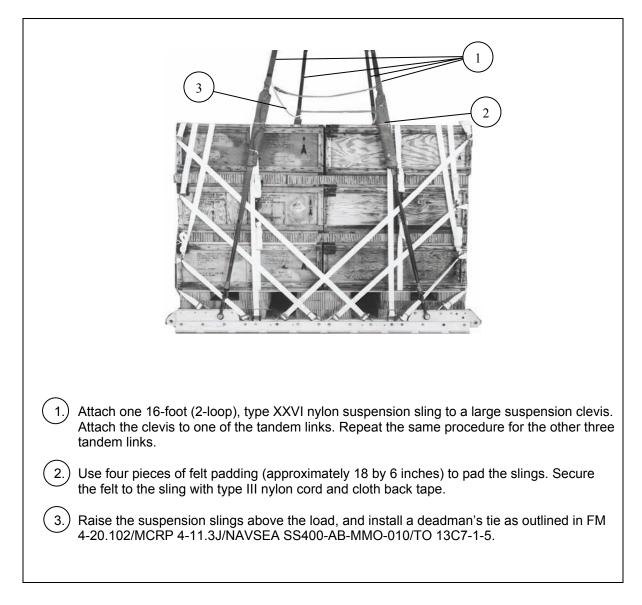


Figure 2-10. Suspension Slings and Deadman's Tie Installed

# STOWING CARGO PARACHUTE

2-7. Stow one G-11B cargo parachute as outlined in FM 4-20.102/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010/TO 13C7-1-5 and as shown in Figure 2-11.

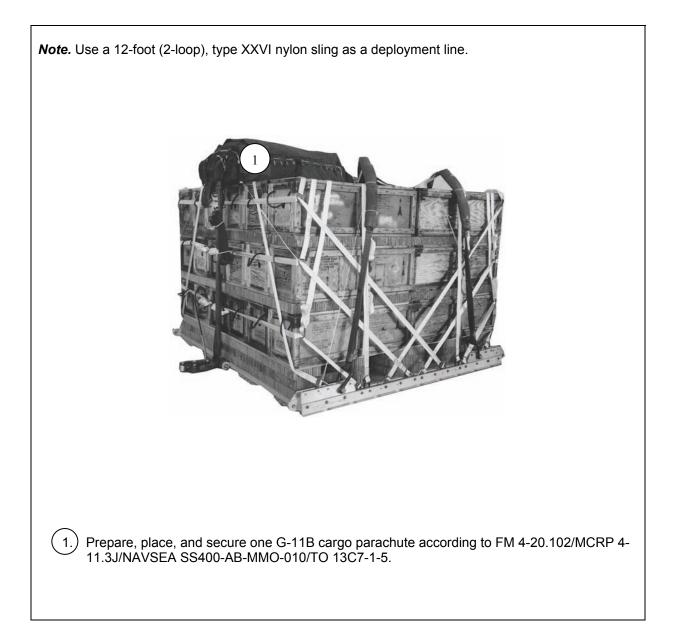


Figure 2-11. Cargo Parachute Stowed and Secured to Load

# INSTALLING EXTRACTION SYSTEM

2-8. Attach the components of the Extraction Force Transfer Coupling (EFTC) according to FM 4-20.102/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010/TO 13C7-1-5 and as shown in Figure 2-12.

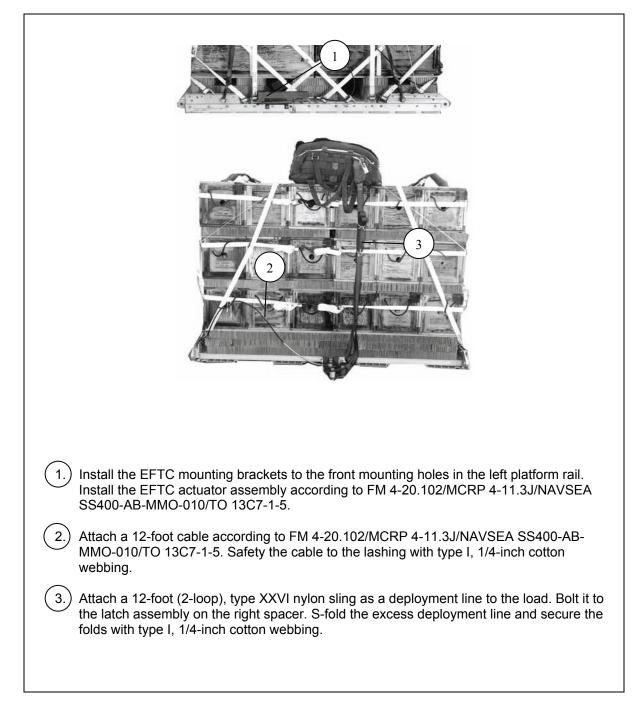


Figure 2-12. EFTC Installed

# INSTALLING PARACHUTE RELEASE

2-9. Prepare, attach, and safety an M-1 cargo parachute release according to FM 4-20.102/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010/TO 13C7-1-5 and as shown in Figure 2-13.

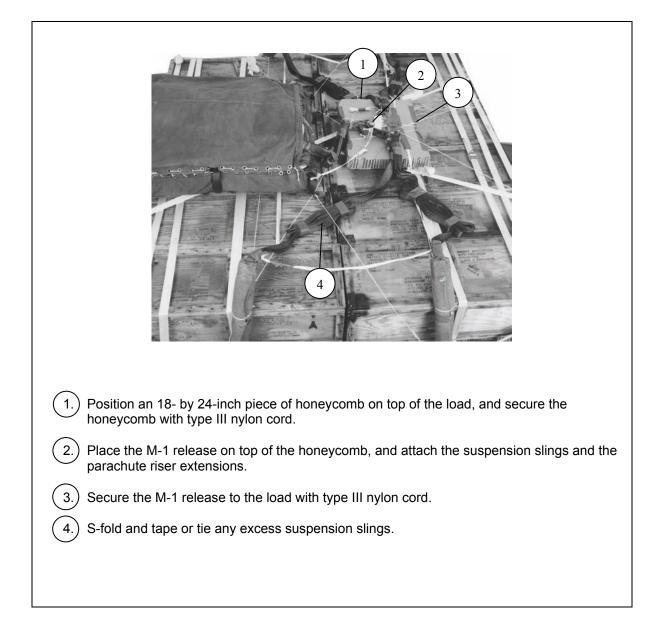


Figure 2-13. M-1 Cargo Parachute Release Installed

#### PLACING EXTRACTION PARACHUTE

2-10. Select the extraction parachute and extraction line needed using the extraction line requirements table in FM 4-20.102/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010/TO 13C7-1-5. Place the extraction parachute and line on the load for installation in the aircraft.

### INSTALLING PROVISIONS FOR EMERGENCY RESTRAINTS

2-11. Select and install the provisions for the emergency aft restraints according to the emergency aft restraint requirements table in FM 4-20.102/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010/TO 13C7-1-5.

#### MARKING RIGGED LOAD

2-12. Mark the rigged load according to FM 4-20.102/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010/TO 13C7-1-5, and as shown in Figure 2-14. Complete Declaration for Dangerous Goods. If the load varies from the one shown, the weight, height, CB, and parachute requirements must be recomputed.

### **EQUIPMENT REQUIRED**

2-13. Use the equipment listed in Table 2-1 to rig this load.

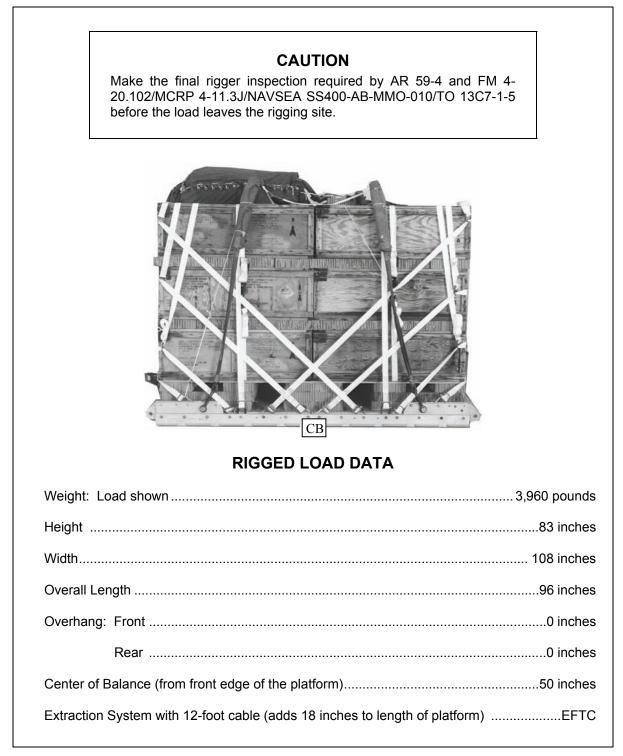


Figure 2-14. Thirty-Six One-Round Containers Rigged on an 8-Foot, Type V Platform for Low-Velocity Airdrop

8040-00-273-8713		
	Adhesive, paste, 1-gallon	As required
	Clevis, suspension:	
4030-00-678-8562	3/4-inch (medium) emergency restraint	2
4030-00-090-5354	1-inch (large)	5
4020-00-240-2146	Cord, nylon, type III	As required
1670-00-434-5783	Coupling, airdrop, extraction force transfer with 12-foot cable	1
1670-00-360-0328	Cover, clevis, large	1
8135-00-664-6958	Cushioning material, packaging, cellulose wadding	As required
8305-00-958-3685	Felt, 1/2-inch thick	As required
1670-01-183-2678	Leaf, extraction line	1
	Line, extraction, type XXVI nylon webbing:	
1670-01-062-6313	60-foot (1-loop)	1
	Or	
1670-01-107-7652	160-foot (1-loop)	1
1670-01-064-4452	60-foot (1-loop), type XXVI for C-17 drogue line	1
	Link assembly, two-point:	
5306-00-435-8994	Bolt, 1-inch diameter, 4-inch long	1
5310-00-232-5165	Nut, 1-inch, hexagonal	1
1670-00-003-1953	Plate, side 3 3/4-inch	1
5365-00-007-3414	Spacer, large	1
1670-00-753-3928	Pad, energy-dissipating, honeycomb	9 sheets
	Parachute:	
1670-01-016-7841	Cargo, G-11B	1
1670-01-063-3715	Cargo, extraction, 15-foot	1
	Platform, airdrop, type V, 8-foot	
1670-01-353-8425	Bracket assembly, EFTC	1
1670-01-162-2376	Bracket assembly, extraction	1
1670-01-162-2372	Clevis assembly	20
1670-01-162-2381	Tandem link	4
5530-00-128-4981	Plywood, 3/4-inch	2 sheets
1670-01-097-8816	Release, cargo parachute, M-1	1

# Table 2-1. Equipment Required for Rigging 36 One-Round Dragon or Dragon II MissileContainers on an 8-Foot, Type V Platform for Low-Velocity Airdrop

Table 2-1. Equipment Required for Rigging 36 One-Round Dragon or Dragon II Missile		
Containers on an 8-Foot, Type V Platform for Low-Velocity Airdrop (Continued)		

National Stock Number	Item	Quantity
	Sling, cargo airdrop:	
	For deployment line:	
1670-00-753-3792	12-foot (2-loop), type XXVI nylon webbing	1
	For riser extension:	
1670-01-062-6301	3-foot (2-loop), type XXVI nylon webbing	4
	For suspension:	
1670-01-063-7761	16-foot (2-loop), type XXVI nylon webbing	4
1670-00-040-8219	Strap parachute release, multicut	1
7515-00-266-5016	Tape, adhesive, 2-inch	As required
7501-00-266-6710	Tape, masking	As required
1670-00-937-0271	Tie-down assembly, 15-foot	36
1670-01-483-8259	Towplate release mechanism (H-block) (C-17)	1
	Webbing:	
8305-00-268-2411	Cotton, 1/4-inch, type I	As required
	Nylon:	
8305-00-082-5752	Tubular, 1/2-inch	As required
8305-00-263-3591	Type VIII webbing	As required

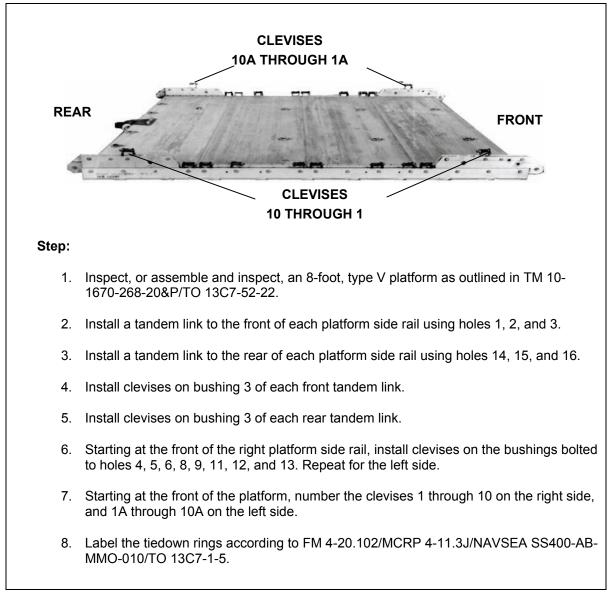
#### SECTION II-RIGGING FOUR 15-ROUND CONTAINERS

#### **DESCRIPTION OF LOAD**

2-14. Four Dragon or Dragon II missiles in 15-round containers are rigged on an 8-foot, type V airdrop platform with one G-11 cargo parachute for low-velocity airdrop (LVAD) from a C-130 or C-17 aircraft. Each container is 49 inches long, 37 inches wide, 67 inches high, and weighs 695 pounds.

#### **PREPARING PLATFORM**

2-15. Prepare an 8-foot airdrop platform as shown in Figure 2-15.



#### Figure 2-15. Platform Prepared

# **BUILDING AND PLACING HONEYCOMB STACKS**

2-16. Prepare and position the honeycomb stacks as shown in Figure 2-16.

# Notes. 1. Measurements from the front of the platform are taken from the front edge of the first panel. 2. Measurements from the rear edge of the platform are taken from the rear edge of the last panel. **STACK 2 STACK 3 STACK 1** 3 Build the first stack by using the following pieces of honeycomb, and position the 1. honeycomb flush with the front edge of the platform. (1<sup>st</sup> and 3<sup>rd</sup> layers) (2<sup>nd</sup> layer) (2<sup>nd</sup> layer bridge) 4 pieces 10- by 80-inches 2-pieces 10- by 60-inches 10- by 29-inches 2 pieces Build the second stack by using three pieces of honeycomb (18- by 80-inch). Center the 2. stack over the joint where the second and third panels join together and between the side rails. 3. Build the third stack by repeating step 1 above, and position the honeycomb flush with the rear edge of the platform.

Figure 2-16. Honeycomb Stacks Positioned

## **POSITIONING THE PLYWOOD**

2-17. Position plywood on honeycomb stacks as shown in Figure 2-17.

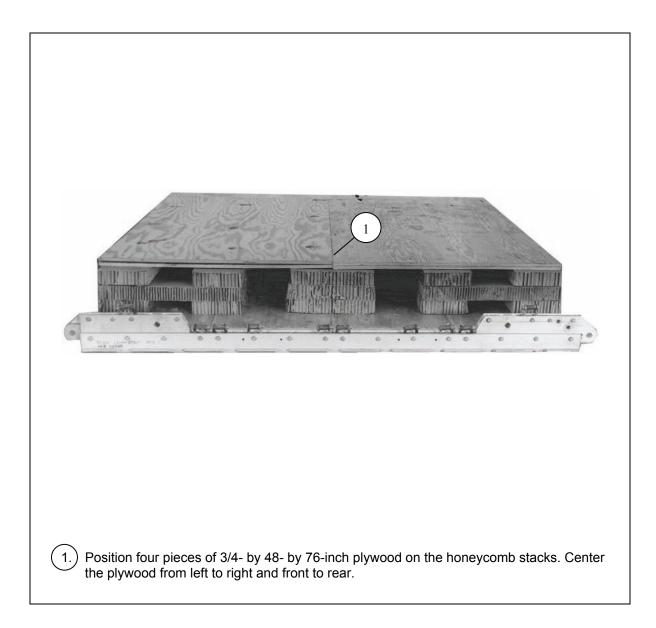
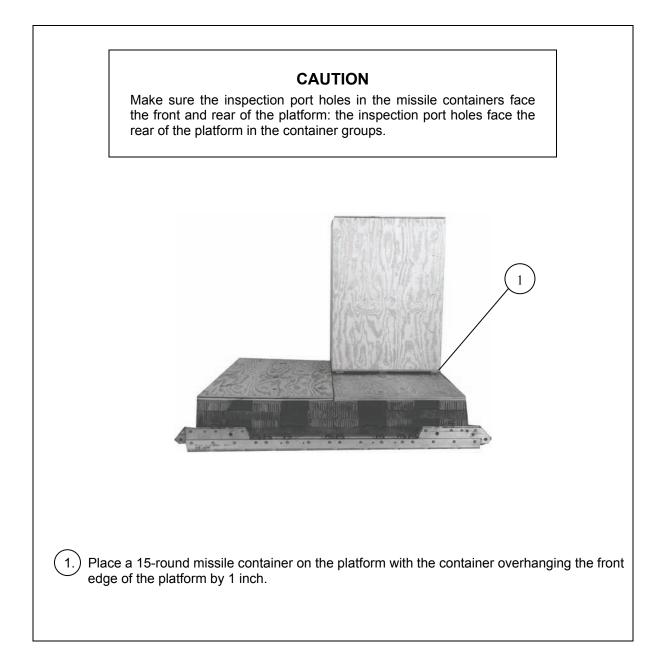


Figure 2-17. Plywood Positioned

# **POSITIONING MISSILE CONTAINERS**

2-18. Place four 15-round containers on the platform as shown in Figures 2-18 and 2-19.



#### Figure 2-18. First Missile Container Positioned

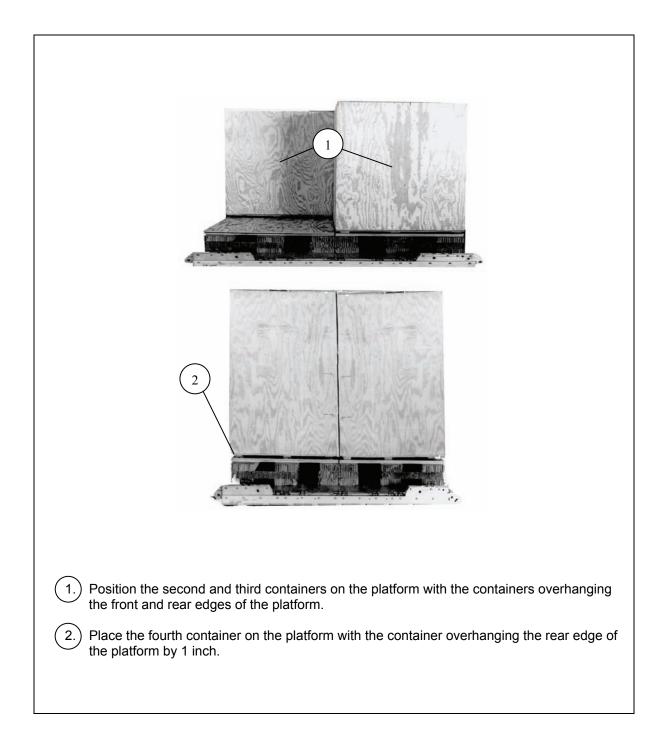


Figure 2-19. Missile Containers 2, 3, and 4 Positioned

# POSITIONING AND LASHING MISSILE CONTAINERS

2-19. Position the lashings as shown in Figure 2-20 and lash the containers to the platform as shown in Figures 2-21 through 2-23. Install and safety the lashings as outlined in FM 4-20.102/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010/TO 13C7-1-5.

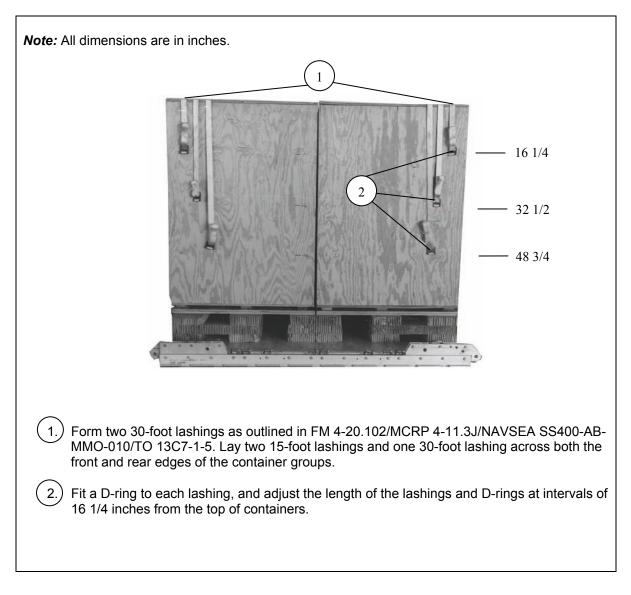


Figure 2-20. Lashings Installed

Lashing Number	Tiedown Clevis Number	Instructions
1	2 and 2A	Route a 15-foot lashing from clevis 2 and a 15-foot lashing from clevis 2A. Pass the lashings through the D-rings. Secure the lashings on the front using two D-rings and a load binder.
2	5 and 5A	Route a 15-foot lashing from clevis 5 and a 15-foot lashing from clevis 5A. Pass the lashings through the D-rings. Secure the lashings on the front using two D-rings and a load binder.
3	7 and 7A	Route a 15-foot lashing from clevis 7 and a 15-foot lashing from clevis 7A. Pass the lashings through the D-rings. Secure the lashings on the front using two D-rings and a load binder.

#### Figure 2-21. Lashings 1 Through 3 Installed

Lashing Number	Tiedown Clevis Number	Instructions
4	4 and 4A	Route a 15-foot lashing from clevis 4 and a 15-foot lashing from clevis 4A. Pass the lashings through the D-rings. Secure the lashings on the rear using two D-rings and a load binder.
5	6 and 6A	Route a 15-foot lashing from clevis 6 and a 15-foot lashing from clevis 6A. Pass the lashings through the D-rings. Secure the lashings on the rear using two D-rings and a load binder.
6	9 and 9A	Route a 15-foot lashing from clevis 9 and a 15-foot lashing from clevis 9A. Pass the lashings through the D-rings. Secure the lashings on the rear using two D-rings and a load binder.

Figure 2-22	. Lashings 4	Through	6 Installed
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Lashing Number	Tiedown Clevis Number	Instructions	
7	10 and 1A	Run a 15-foot lashing through clevis 10 and a 15-foot lashing from clevis 1A. Pass the lashings around ends of the containers and up over the load. Secure the lashings on the top using two D-rings and a load binder. Safety the lashings to the bottom D-rings with type I, ½-inch cotton webbing	
8	8 and 8A	Run a 15-foot lashing through clevis 8 and a 15-foot lashing from clevis 8A. Pass the lashings over the top of the load. Secure the lashings on the top using two D-rings and a load binder.	
9	3 and 3A	Run a 15-foot lashing through clevis 3 and a 15-foot lashing from clevis 3A. Pass the lashings over the top of the load. Secure the lashings on the top using two D-rings and a load binder.	
10	1 and 10A	Run a 15-foot lashing through clevis 1 and a 15-foot lashing from clevis 10A. Pass the lashings around ends of the containers and up over the load. Secure the lashings on the top using two D-rings and a load binder. Safety the lashings to the bottom D-rings with type I, 1/4-inch cotton webbing.	

Figure 2-23. Lashings 7 Through 10 Installed

## INSTALLING SUSPENSION SLINGS AND DEADMAN'S TIE

2-20. Install and safety four 16-foot (2-loop), type XXVI nylon slings and four large clevises as shown in Figure 2-24.

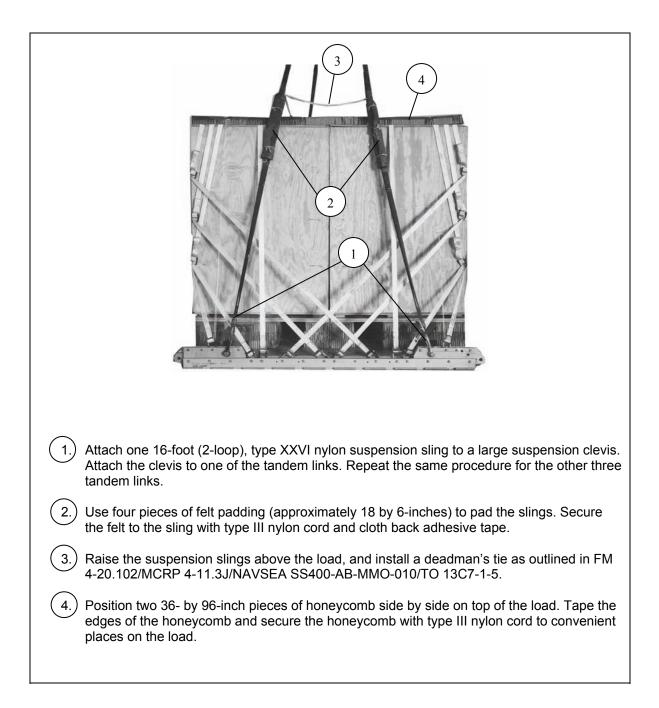


Figure 2-24. Suspension Slings and Deadman's Tie Installed

# **STOWING CARGO PARACHUTE**

2-21. Stow one G-11B cargo parachute according to FM 4-20.102/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010/TO 13C7-1-5 and as shown in Figure 2-25.

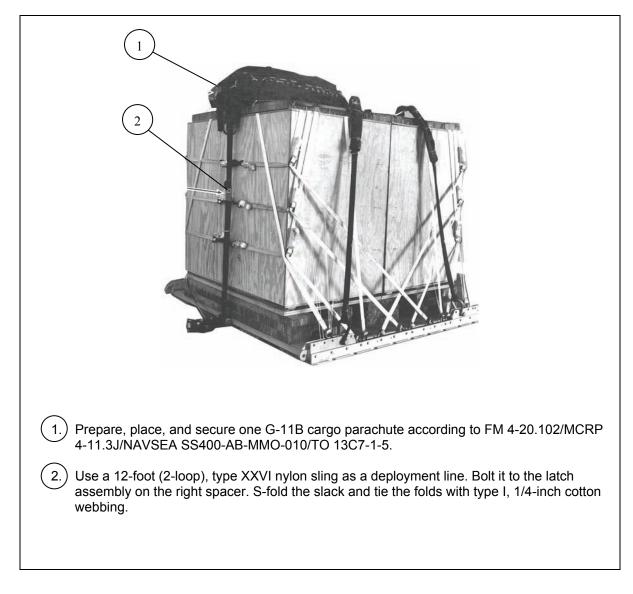


Figure 2-25. Cargo Parachute Stowed and Secured to Load

# **INSTALLING EXTRACTION SYSTEM**

2-22. Attach the EFTC according to FM 4-20.102/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010/TO 13C7-1-5 and as shown in Figure 2-26.

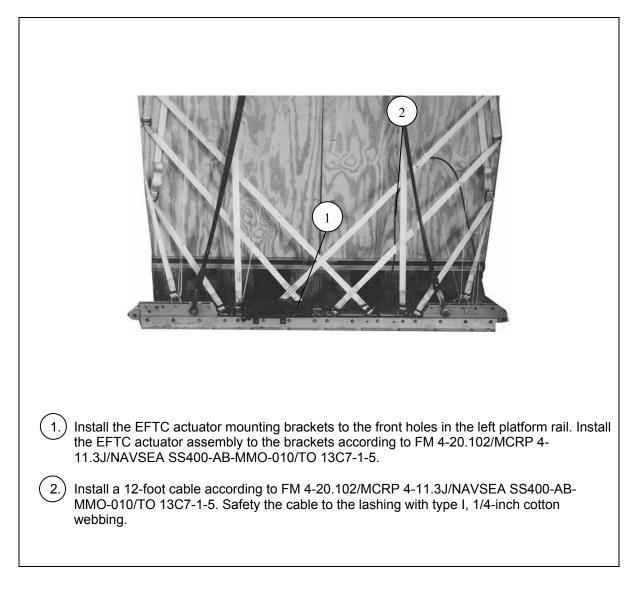


Figure 2-26. EFTC Installed

#### **INSTALLING PARACHUTE RELEASE**

2-23. Prepare, attach, and safety an M-1 cargo parachute release according to FM 4-20.102/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010/TO 13C7-1-5 and as shown in Figure 2-27.

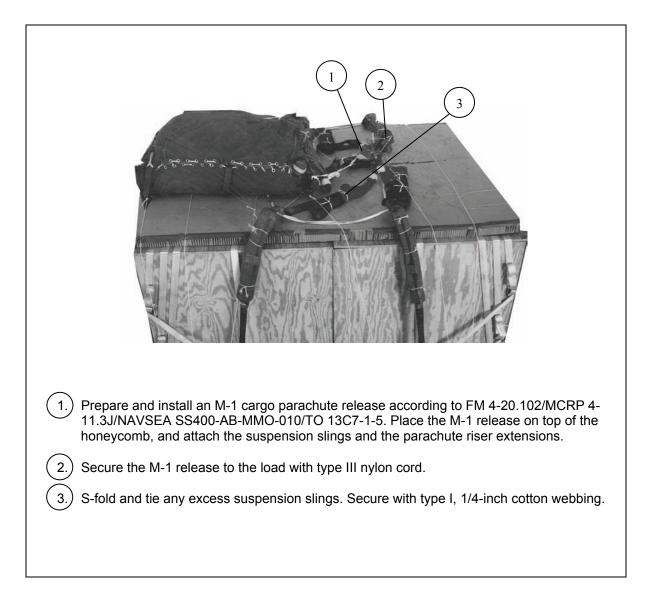


Figure 2-27. M-1 Cargo Parachute Release Installed

## PLACING EXTRACTION PARACHUTE

2-24. Select the extraction parachute and extraction line needed using the extraction line requirements table in FM 4-20.102/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010/TO 13C7-1-5. Place the extraction parachute and line on the load for installation in the aircraft.

## INSTALLING PROVISIONS FOR EMERGENCY RESTRAINTS

2-25. Select and install the provisions for the emergency aft restraints according to the emergency aft restraint requirements table in FM 4-20.102/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010/TO 13C7-1-5.

#### MARKING RIGGED LOAD

2-26. Mark the rigged load according to FM 4-20.102/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010/TO 13C7-1-5, and as shown in Figure 2-28. Complete Declaration for Dangerous Goods. If the load varies from the one shown, the weight, height, CB, and parachute requirements must be recomputed.

## **EQUIPMENT REQUIRED**

2-27. Use the equipment listed in Table 2-2 to rig this load.

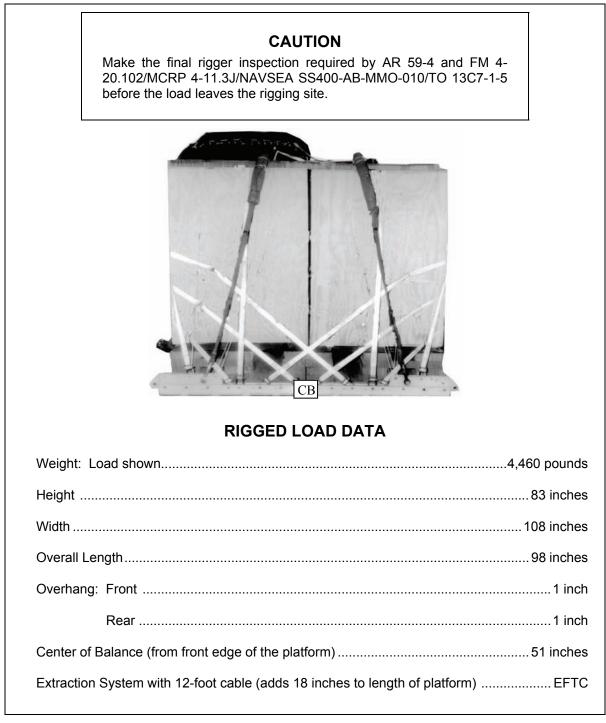


Figure 2-28. Four 15-Round Containers Rigged on an 8-Foot, Type V Platform for Low-Velocity Airdrop

Table 2-2. Equipment Required for Rigging Four 15-Round Dragon or Dragon II Missile
Containers on an 8-Foot, Type V Platform for Low-Velocity Airdrop

National Stock Number	Item	Quantity
8040-00-273-8713	Adhesive, paste, 1-gallon	As required
	Clevis, suspension:	
4030-00-678-8562	3/4-inch (medium) emergency restraint	2
4030-00-090-5354	1-inch (large)	5
4020-00-240-2146	Cord, nylon, type III	As required
1670-00-434-5783	Coupling, airdrop, extraction force transfer with 12-foot cable	1
1670-00-360-0328	Cover, clevis, large	1
8135-00-664-6958	Cushioning material, packaging, cellulose wadding	As required
8305-00-958-3685	Felt, 1/2-inch thick	As required
1670-01-183-2678	Leaf, extraction line	2
	Line, extraction, type XXVI nylon webbing:	
1670-01-062-6313	60-foot (1-loop)	1
	Or	
1670-01-107-7652	160-foot (1-loop)	2
1670-01-064-4452	60-foot (1-loop), type XXVI for C-17 drogue line	1
	Link assembly, two-point:	
5306-00-435-8994	Bolt, 1-inch diameter, 4-inch long	1
5310-00-232-5165	Nut, 1-inch, hexagonal	1
1670-00-003-1953	Plate, side 3 3/4-inch	1
5365-00-007-3414	Spacer, large	1
1670-00-753-3928	Pad, energy-dissipating, honeycomb	9 sheets
	Parachute:	
1670-01-016-7841	Cargo, G-11B	1
1670-01-063-3715	Cargo, extraction, 15-foot	1
	Platform, airdrop, type V, 8-foot	
1670-01-353-8425	Bracket assembly, EFTC	1
1670-01-162-2376	Bracket assembly, extraction	1
1670-01-162-2372	Clevis assembly	20
1670-01-162-2381	Tandem link	4
5530-00-128-4981	Plywood, 3/4-inch	4 sheets
1670-01-097-8816	Release, cargo parachute, M-1	1
I		

# Table 2-2. Equipment Required for Rigging Four 15-Round Dragon or Dragon II Missile Containers on an 8-Foot, Type V Platform for Low-Velocity Airdrop (Continued)

National Stock Number	Item	Quantity
	Sling, cargo airdrop:	
	For deployment line:	
1670-00-753-3792	12-foot (2-loop), type XXVI nylon webbing	1
	For riser extension:	
1670-01-062-6301	3-foot (2-loop), type XXVI nylon webbing	1
	For suspension:	
1670-01-063-7761	16-foot (2-loop), type XXVI nylon webbing	4
1670-00-040-8219	Strap parachute release, multicut	1
7515-00-266-5016	Tape, adhesive, 2-inch	As required
7501-00-266-6710	Tape, masking	As required
1670-00-937-0271	Tie-down assembly, 15-foot	28
1670-01-483-8259	Towplate release mechanism (H-block) (C-17)	1
	Webbing:	
8305-00-268-2411	Cotton, 1/4-inch, type I	As required
	Nylon:	
8305-00-082-5752	Tubular, 1/2-inch	As required
8305-00-263-3591	Type VIII webbing	As required

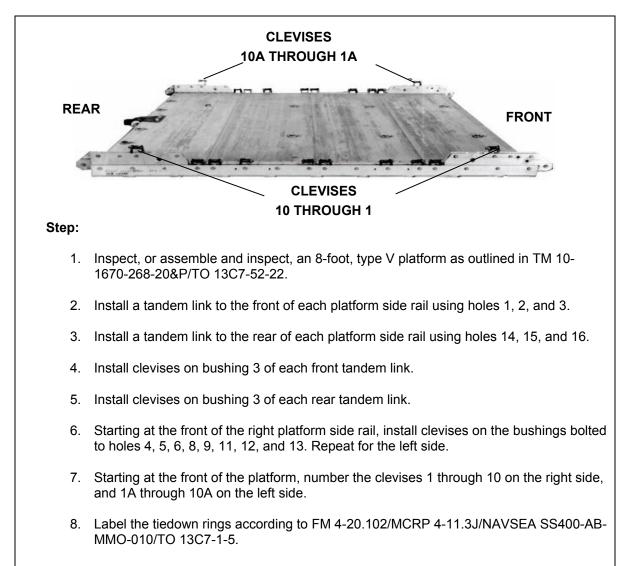
# SECTION III-RIGGING FOUR A-22 CARGO BAGS WITH ONE-ROUND CONTAINERS

# **DESCRIPTION OF LOAD**

2-28. Four A-22 cargo bags with Dragon or Dragon II missiles in one-round containers are rigged on an 8foot, type V airdrop platform with one G-11B cargo parachute for low-velocity airdrop (LVAD) from a C-130 or C-17 aircraft. Each A-22 cargo bag with missile containers is 48 inches long, 48 inches wide, and weighs 693 pounds.

## **PREPARING PLATFORM**

2-29. Prepare an 8-foot, type V airdrop platform as shown in Figure 2-29.



#### Figure 2-29. Platform Prepared

# **BUILDING AND PLACING HONEYCOMB STACKS**

2-30. Prepare and position the honeycomb stacks as shown in Figure 2-30.

#### Notes.

Measurements from the front of the platform are taken from the front edge of the first panel.
 Measurements from the rear edge of the platform are taken from the rear edge of the last panel.

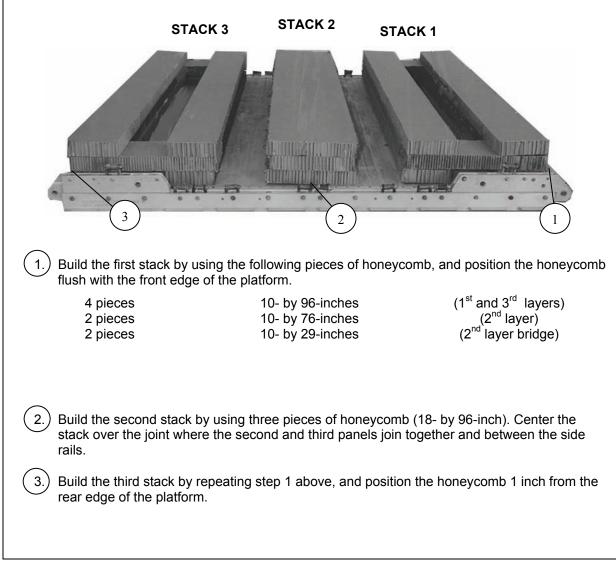


Figure 2-30. Honeycomb Stacks Positioned

#### **PREPARING LOAD**

2-31. Prepare four A-22 cargo bags with nine one-round containers as shown in Figures 2-31 and 2-32; however, do not use the skid or skid honeycomb. Close the A-22 cargo bags by following the steps in FM 4-20.103/MCRP 4-11.3C/TO 13C7-1-11.

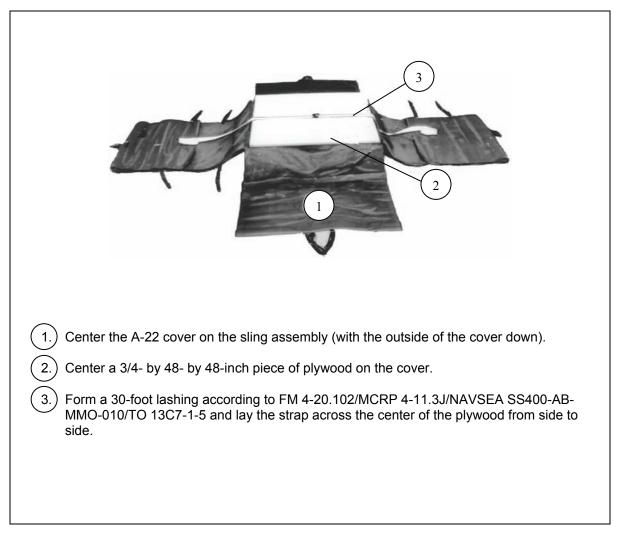


Figure 2-31. Cargo Bag, Plywood, and Lashing Positioned

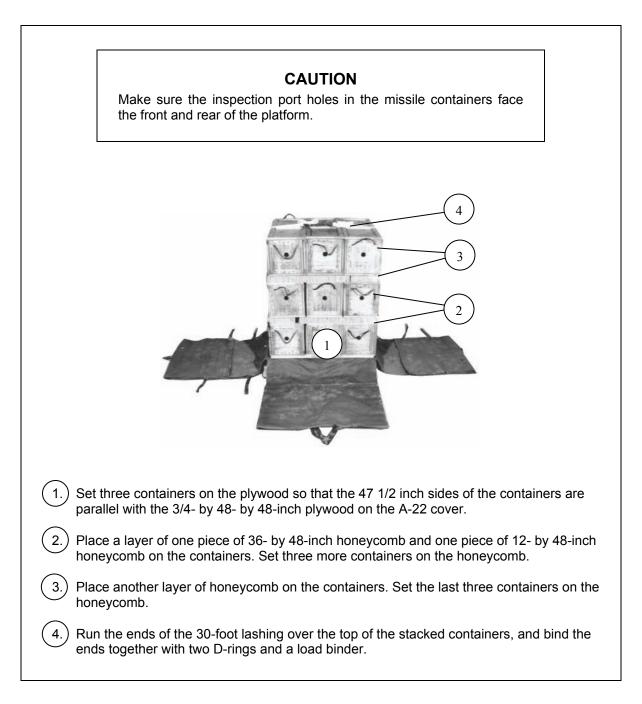


Figure 2-32. Nine One-Round Containers Positioned

## **POSITIONING THE LOAD**

2-32. Place the four A-22 containers on the platform as shown in Figure 2-33.

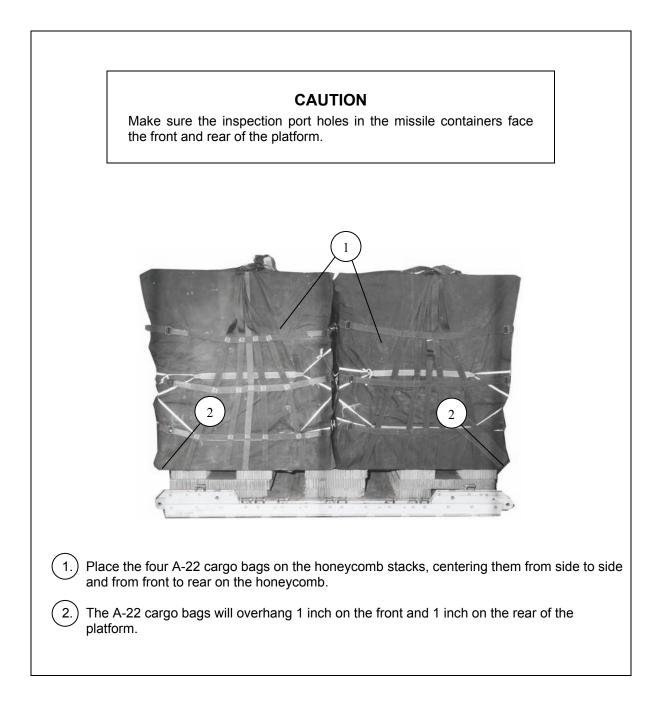


Figure 2-33. Cargo A-22 Containers Positioned

#### SECURING SUSPENSION WEBS AND LASHING CONTAINERS

2-33. Secure the suspension webs as shown in Figure 2-34. Lash the A-22 cargo bags to the platform as shown in Figures 2-35 through 2-37. Install the lashings as outlined in FM 4-20.102/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010/TO 13C7-1-5.

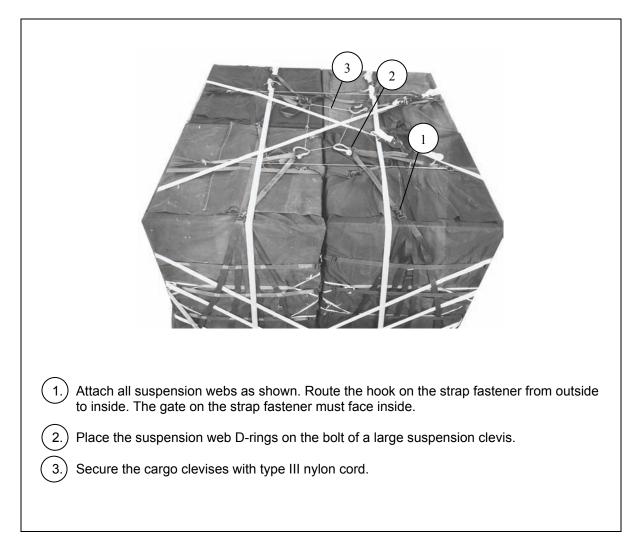


Figure 2-34. Lashings Installed

Lashing Number	Tiedown Clevis Number	Instructions
1	2 and 2A	Route a 15-foot lashing from clevis 2 and a 15-foot lashing from clevis 2A. Pass the lashings underneath the A-22 webbing on the sides and around the front of the load. Secure the lashings on the front using two D-rings and a load binder.
2	5 and 5A	Route a 15-foot lashing from clevis 5 and a 15-foot lashing from clevis 5A. Pass the lashings underneath the A-22 webbing on the sides and around the front of the load. Secure the lashings on the front using two D-rings and a load binder.
3	7 and 7A	Route a 15-foot lashing from clevis 7 and a 15-foot lashing from clevis 7A. Pass the lashings underneath the A-22 webbing on the sides and around the front of the load. Secure the lashings on the front using two D-rings and a load binder.

#### Figure 2-35. Lashings 1 Through 3 Installed

Lashing Number	Tiedown Clevis Number	Instructions	
4	4 and 4A	Route a 15-foot lashing from clevis 4 and a 15-foot lashing from clevis 4A. Pass the lashings underneath the A-22 webbing on the sides and around the rear of the load. Secure the lashings on the rear using two D-rings and a load binder.	
5	6 and 6A	Route a 15-foot lashing from clevis 6 and a 15-foot lashing from clevis 6A. Pass the lashings underneath the A-22 webbing on the sides and around the rear of the load. Secure the lashings on the rear using two D-rings and a load binder.	
6	9 and 9A	Route a 15-foot lashing from clevis 9 and a 15-foot lashing from clevis 9A. Pass the lashings underneath the A-22 webbing on the sides and around the rear of the load. Secure the lashings on the rear using two D-rings and a load binder.	

#### Figure 2-36. Lashings 4 Through 6 Installed

Lashing Number	Tiedown Clevis Number	Instructions		
7	1 and 10A	Route a 15-foot lashing from clevis 1 and a 15-foot lashing from clevis 10A. Pass the lashings around the front and rear of the load and up over the top of the load. Secure the lashings on the top using two D-rings and a load binder.		
8	3 and 3A	Route a 15-foot lashing from clevis 3 and a 15-foot lashing from clevis 3A. Pass the lashings over the top of the load. Secure the lashings on the top using two D-rings and a load binder.		
8 9	3 and 3A 8 and 8A	Pass the lashings over the top of the load. Secure the lashings on the top		

Figure 2-37. Lashings 7 Through 10 Installed

## INSTALLING SUSPENSION SLINGS AND DEADMAN'S TIE

2-34. Install and safety four 16-foot (2-loop), type XXVI nylon slings as shown in Figure 2-38.

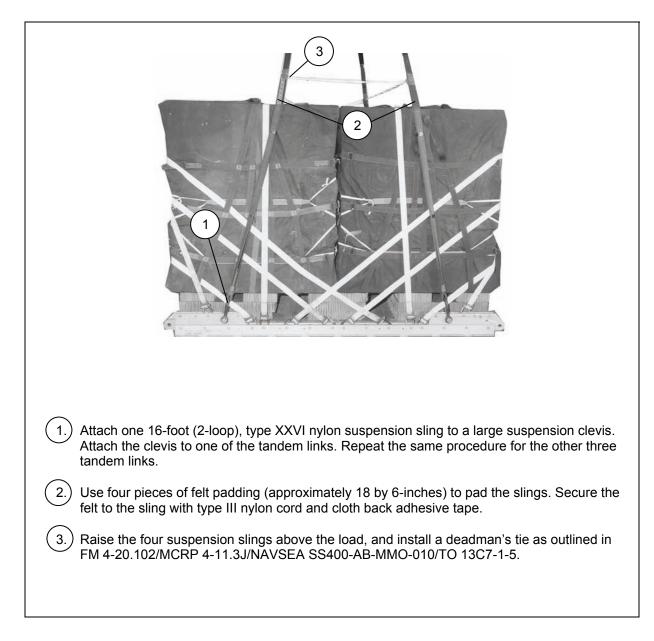


Figure 2-38. Suspension Slings and Deadman's Tie Installed

# STOWING CARGO PARACHUTE

2-35. Stow one G-11 cargo parachute according to FM 4-20.102/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010/TO 13C7-1-5 and as shown in Figure 2-39.

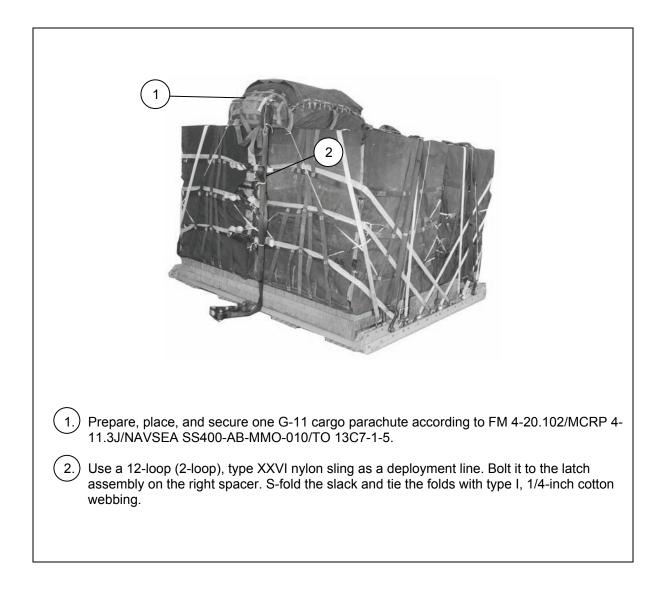


Figure 2-39. Cargo Parachute Stowed and Secured to Load

# INSTALLING EXTRACTION SYSTEM

2-36. Attach the components of the Extraction Force Transfer Coupling (EFTC) according to FM 4-20.102/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010/TO 13C7-1-5 and as shown in Figure 2-40.

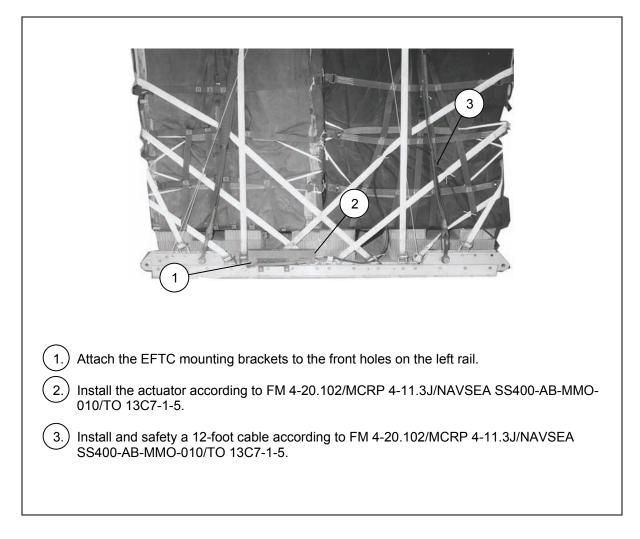


Figure 2-40. EFTC Installed

## **INSTALLING PARACHUTE RELEASE**

2-37. Prepare, attach, and safety an M-1 cargo parachute release according to FM 4-20.102/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010/TO 13C7-1-5 and as shown in Figure 2-41.

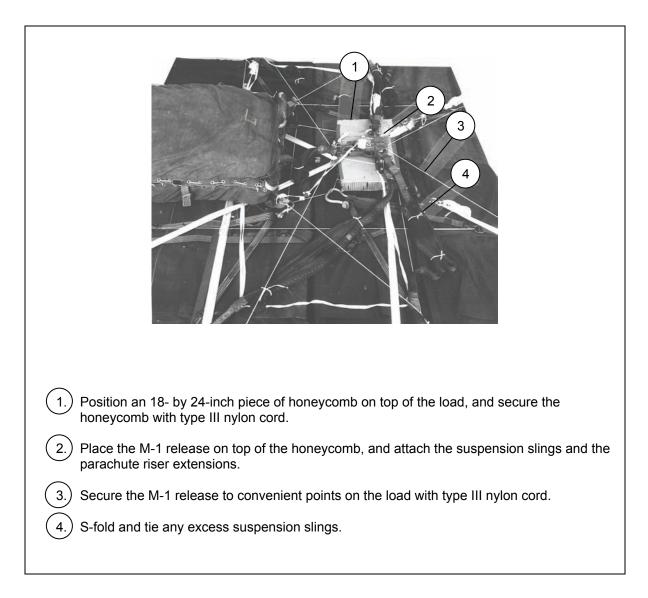


Figure 2-41. M-1 Cargo Parachute Release Installed

#### PLACING EXTRACTION PARACHUTE

2-38. Select the extraction parachute and extraction line needed using the extraction line requirements table in FM 4-20.102/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010/TO 13C7-1-5. Place the extraction parachute and line on the load for installation in the aircraft.

#### **INSTALLING PROVISIONS FOR EMERGENCY RESTRAINTS**

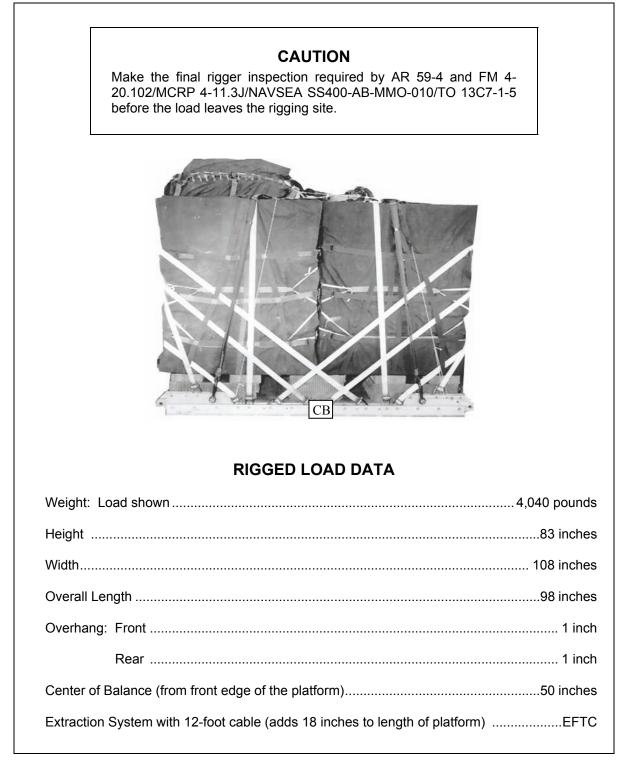
2-39. Select and install the provisions for the emergency aft restraints according to the emergency aft restraint requirements table in FM 4-20.102/NAVSEA SS400-AB-MMO-010/TO 13C7-1-5.

#### MARKING RIGGED LOAD

2-40. Mark the rigged load according to FM 4-20.102/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010/TO 13C7-1-5, and as shown in Figure 2-42. Complete Declaration for Dangerous Goods. If the load varies from the one shown, the weight, height, CB, and parachute requirements must be recomputed.

#### **EQUIPMENT REQUIRED**

2-41. Use the equipment listed in Table 2-3 to rig this load.



#### Figure 2-42. One-Round Containers Rigged in Four A-22 Cargo Bags on an 8-Foot, Type V Platform for Low-Velocity Airdrop

# Table 2-3. Equipment Required for Rigging One -Round Dragon or Dragon II MissileContainers in Four A-22 Cargo Bags on an 8-Foot, Type V Platform for Low-Velocity Airdrop

National Stock Number	Item	Quantity
8040-00-273-8713	Adhesive, paste, 1-gallon	As required
8465-00-587-3421	Bag, cargo, aerial delivery, type A-22	4
	Clevis, suspension:	
4030-00-678-8562	3/4-inch (medium) emergency restraint	2
4030-00-090-5354	1-inch (large)	9
4020-00-240-2146	Cord, nylon, type III	As required
1670-00-434-5783	Coupling, airdrop, extraction force transfer with 12-foot cable	1
1670-00-360-0328	Cover, clevis, large	1
8135-00-664-6958	Cushioning material, packaging, cellulose wadding	As required
8305-00-958-3685	Felt, 1/2-inch thick	As required
1670-01-183-2678	Leaf, extraction line	2
	Line, extraction, type XXVI nylon webbing:	
1670-01-062-6313	60-foot (1-loop)	1
	Or	
1670-01-107-7652	160-foot (1-loop)	2
1670-01-064-4452	60-foot (1-loop), type XXVI for C-17 drogue line	1
	Link assembly, two-point:	
5306-00-435-8994	Bolt, 1-inch diameter, 4-inch long	1
5310-00-232-5165	Nut, 1-inch, hexagonal	1
1670-00-003-1953	Plate, side 3 3/4-inch	1
5365-00-007-3414	Spacer, large	1
1670-00-753-3928	Pad, energy-dissipating, honeycomb	10 sheets
	Parachute:	
1670-01-016-7841	Cargo, G-11B	1
1670-01-063-3715	Cargo, extraction, 15-foot	1
	Platform, airdrop, type V, 8-foot	
1670-01-353-8425	Bracket assembly, EFTC	1
1670-01-162-2376	Bracket assembly, extraction	1
1670-01-162-2372	Clevis assembly	20
1670-01-162-2381	Tandem link	4
5530-00-128-4981	Plywood, 3/4-inch	2 sheets
1670-01-097-8816	Release, cargo parachute, M-1	1

#### Table 2-3. Equipment Required for Rigging One -Round Dragon or Dragon II Missile Containers in Four A-22 Cargo Bags on an 8-Foot, Type V Platform for Low-Velocity Airdrop (Continued)

National Stock Number	Item	Quantity
	Sling, cargo airdrop:	
	For deployment line:	
1670-00-753-3792	12-foot (2-loop), type XXVI nylon webbing	1
	For riser extension:	
1670-01-062-6301	3-foot (2-loop), type XXVI nylon webbing	1
	For suspension:	
1670-01-063-7761	16-foot (2-loop), type XXVI nylon webbing	4
1670-00-040-8219	Strap parachute release, multicut	1
7515-00-266-5016	Tape, adhesive, 2-inch	As required
7501-00-266-6710	Tape, masking	As required
1670-01-4838259	Towplate release mechanism (H-block) (C-17)	1
1670-00-937-0271	Tie-down assembly, 15-foot	28
	Webbing:	
8305-00-268-2411	Cotton, 1/4-inch, type I	As required
	Nylon:	
8305-00-082-5752	Tubular, 1/2-inch	As required
8305-00-263-3591	Type VIII webbing	As required

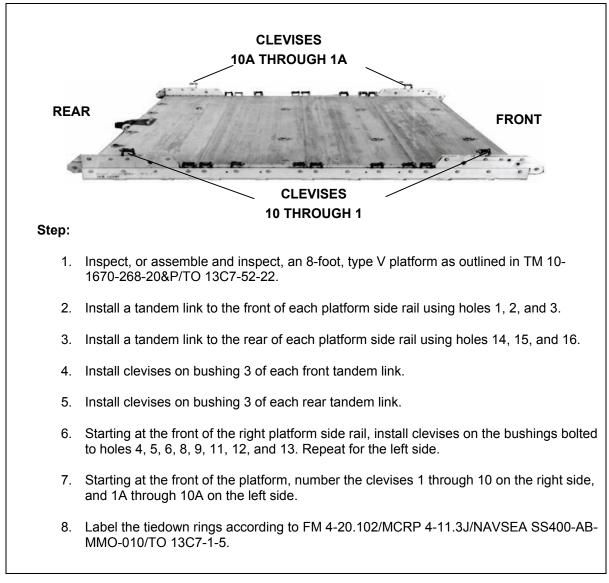
#### SECTION IV-RIGGING FOUR 15-ROUND CONTAINERS

#### **DESCRIPTION OF LOAD**

2-42. Four Dragon or Dragon II missiles in 15-round containers are rigged in four A-22 cargo slings on an 8-foot, type V airdrop platform with one G-11 cargo parachute for low-velocity airdrop (LVAD) from a C-130 or C-17 aircraft. Each container is 49 inches long, 37 inches wide, 67 inches high, and weighs 695 pounds.

#### **PREPRARING PLATFORM**

2-43. Prepare an 8-foot airdrop platform as shown in Figure 2-43.



#### Figure 2-43. Platform Prepared

#### **BUILDING AND PLACING HONEYCOMB STACKS**

2-44. Prepare and position the honeycomb stacks as shown in Figure 2-44.

# Notes. 1. Measurements from the front of the platform are taken from the front edge of the first panel. 2. Measurements from the rear edge of the platform are taken from the rear edge of the last panel. **STACK 2 STACK 3 STACK 1** Build the first stack by using the following pieces of honeycomb, and position the 1. honeycomb flush with the front edge of the platform. (1<sup>st</sup> and 3<sup>rd</sup> layers) (2<sup>nd</sup> layer) (2<sup>nd</sup> layer bridge) 4 pieces 10- by 80-inches 2 pieces 10- by 60-inches 2 pieces 10- by 29-inches Build the second stack by using three pieces of honeycomb (18- by 80-inch). Center the 2. stack over the joint where the second and third panels join together and between the side rails. Build the third stack by repeating step 1 above, and position the honeycomb flush with the 3. rear edge of the platform.

Figure 2-44. Honeycomb Stacks Positioned

#### **PREPARING THE LOAD**

2-45. Prepare four A-22 cargo slings with four 15-round containers as shown in Figures 2-45 and 2-46. However, do not use the skid or skid honeycomb. Close the A-22 slings by following steps in FM 4-20.103/MCRP 4-11.3C/TO 13C7-1-11.

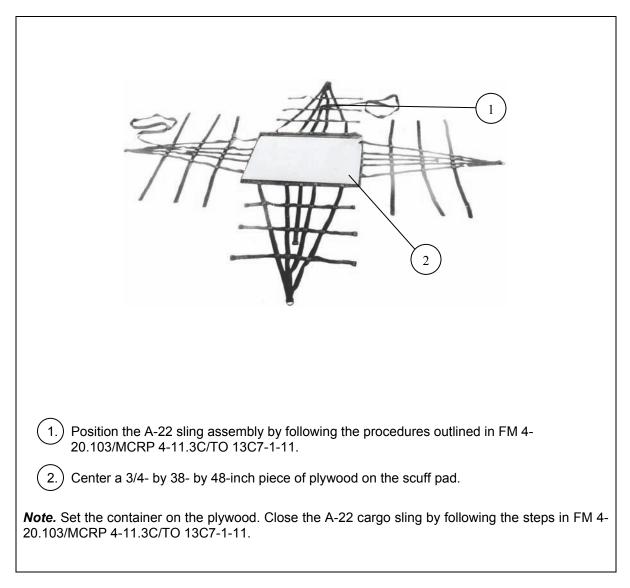


Figure 2-45. Cargo Sling and Plywood Positioned

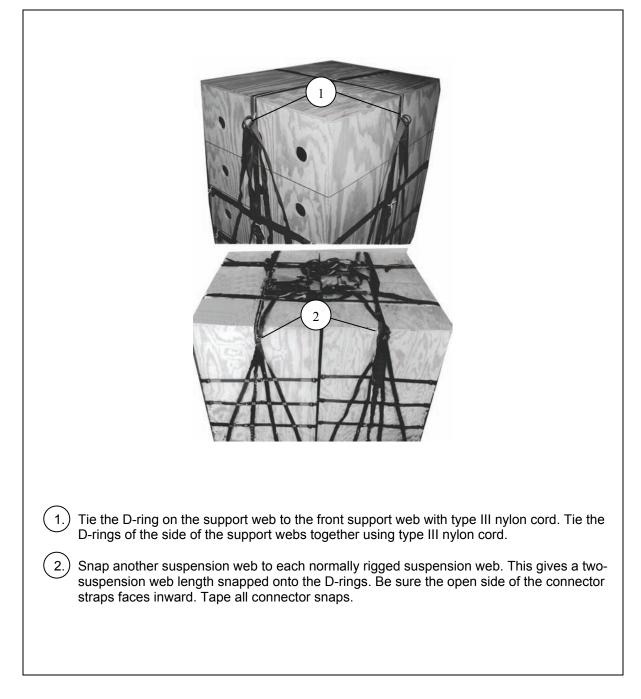


Figure 2-46. Containers Positioned and Cargo Slings Closed

#### **POSITIONING LOAD**

2-46. Place the four A-22 cargo slings with four 15-round containers on the honeycomb stacks as shown in Figure 2-47.

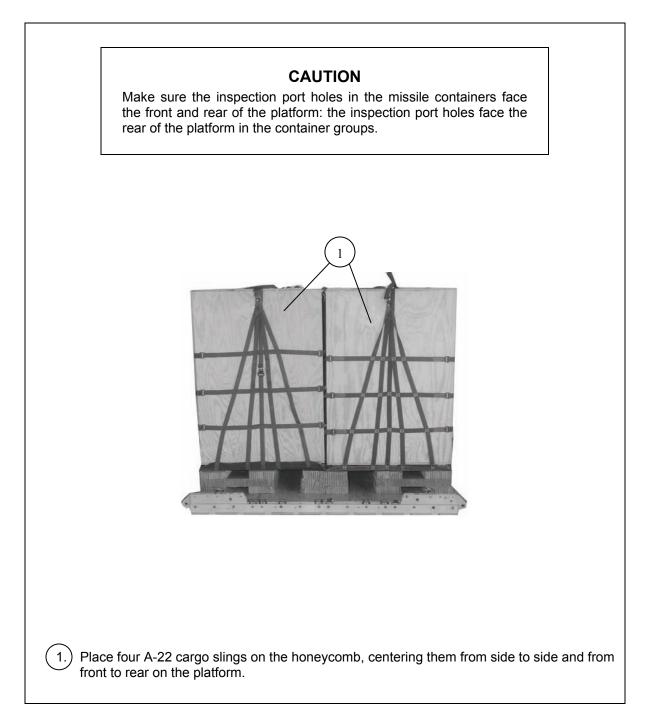
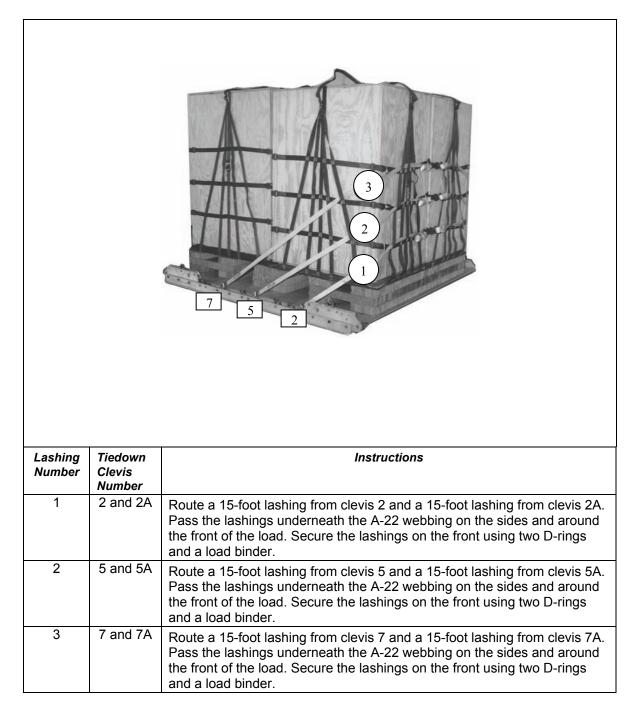


Figure 2-47. Missile Containers Positioned

# LASHING MISSILE CONTAINERS

2-47. Lash the containers to the platform as shown in Figures 2-48 through 2-50. Install and safety the lashings as outlined in FM 4-20.102/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010/TO 13C7-1-5.



#### Figure 2-48. Lashings 1 Through 3 Installed

Lashing Number	Tiedown Clevis Number	Instructions			
4	4 and 4A	Route a 15-foot lashing from clevis 4 and a 15-foot lashing from clevis 4A. Pass the lashings underneath the A-22 webbing on the sides and around the rear of the load. Secure the lashings on the rear using two D-rings and a load binder.			
5	6 and 6A	Route a 15-foot lashing from clevis 6 and a 15-foot lashing from clevis 6A. Pass the lashings underneath the A-22 webbing on the sides and around the rear of the load. Secure the lashings on the rear using two D-rings and a load binder.			
6	9 and 9A	Route a 15-foot lashing from clevis 9 and a 15-foot lashing from clevis 9A. Pass the lashings underneath the A-22 webbing on the sides and around the rear of the load. Secure the lashings on the rear using two D-rings and a load binder.			

Figure 2-49. Lashings 4 Through 6 Installed

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Lashing Number	Tiedown Clevis Number	Instructions		
7	1 and 10A	Route a 15-foot lashing from clevis 1 and a 15-foot lashing from clevis 10A. Pass the lashings around the front and rear of the load and up over the top of the load. Secure the lashings on the top using two D-rings and a load binder.		
8	3 and 3A	Route a 15-foot lashing from clevis 3 and a 15-foot lashing from clevis 3A. Pass the lashings over the top of the load. Secure the lashings on the top using two D-rings and a load binder.		
9	8 and 8A	Route a 15-foot lashing from clevis 8 and a 15-foot lashing from clevis 8A. Pass the lashings over the top of the load. Secure the lashings on the top using two D-rings and a load binder.		
10	10 and 1A	Route a 15-foot lashing from clevis 10 and a 15-foot lashing from clevis 1A. Pass the lashings around the front and rear of the load and up over the top of the load. Secure the lashings on the top using two D-rings and a load binder.		

Figure 2-50. Lashings 7 Through 10 Installed

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### INSTALLING SUSPENSION SLINGS AND DEADMAN'S TIE

2-48. Install and safety four 16-foot (2-loop), type XXVI nylon slings and four large clevises. Attach each sling to a clevis and attach one clevis to each of the four tandem links as shown in Figure 2-51.

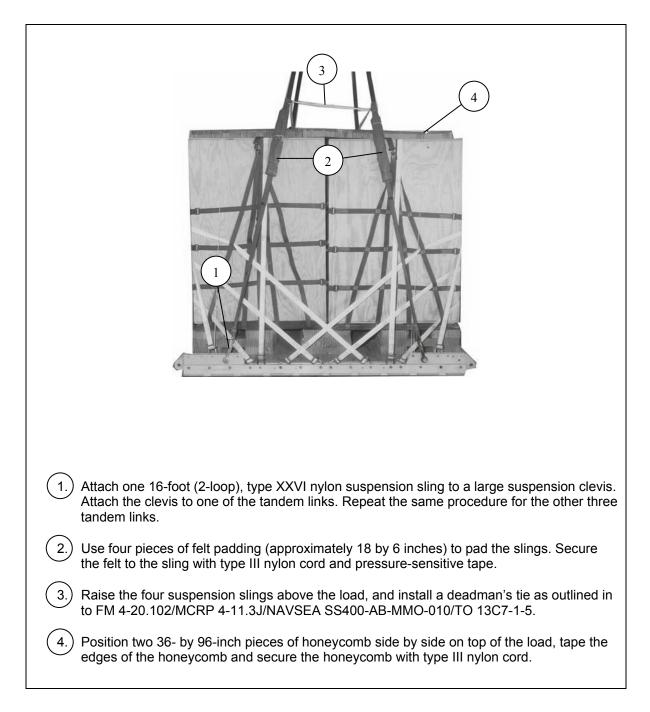


Figure 2-51. Suspension Slings and Deadman's Tie Installed

## **STOWING CARGO PARACHUTE**

2-49. Stow one G-11 cargo parachute according to FM 4-20.102/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010/TO 13C7-1-5 and as shown in Figure 2-52.

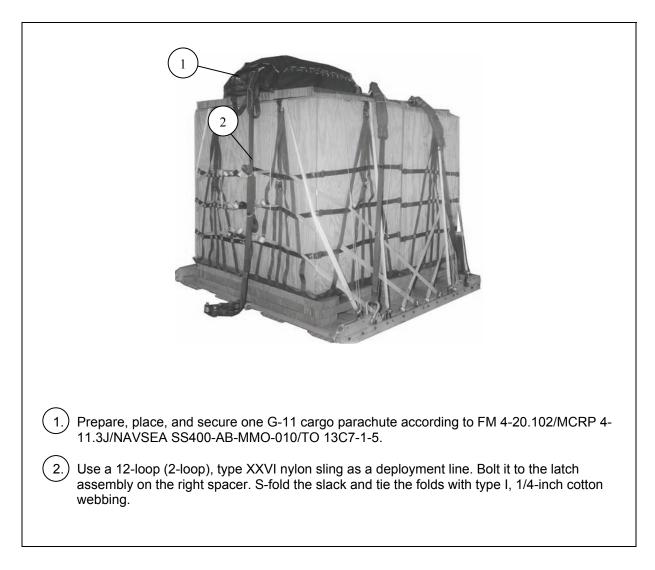


Figure 2-52. Cargo Parachute Stowed and Secured to Load

### INSTALLING EXTRACTION SYSTEM

2-50. Attach the components of the Extraction Force Transfer Coupling (EFTC) according to FM 4-20.102/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010/TO 13C7-1-5 and as shown in Figure 2-53.

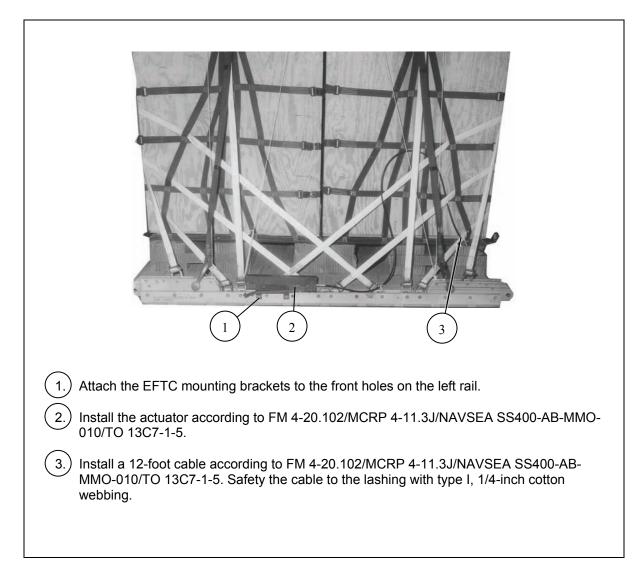


Figure 2-53. EFTC Installed

# **INSTALLING PARACHUTE RELEASE**

2-51. Prepare, attach, and safety an M-1 cargo parachute release according to FM 4-20.102/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010/TO 13C7-1-5 and as shown in Figure 2-54.

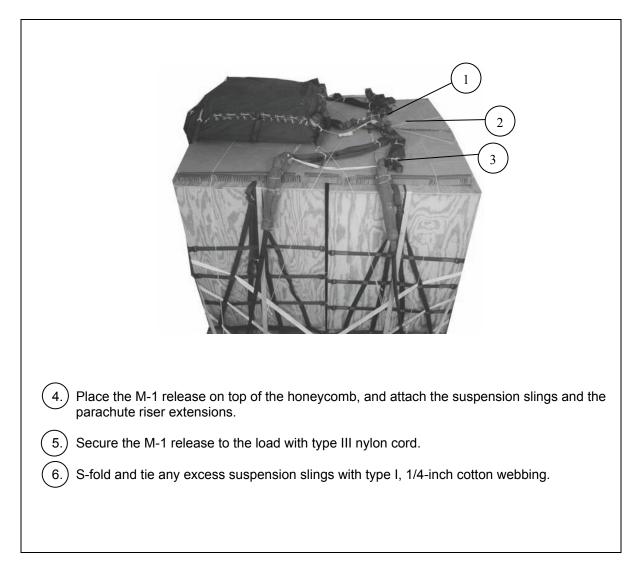


Figure 2-54. M-1 Cargo Parachute Release Installed

#### PLACING EXTRACTION PARACHUTE

2-52. Select the extraction parachute and extraction line needed using the extraction line requirements table in FM 4-20.102/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010/TO 13C7-1-5. Place the extraction parachute and line on the load for installation in the aircraft.

#### **INSTALLING PROVISIONS FOR EMERGENCY RESTRAINTS**

2-53. Select and install the provisions for the emergency aft restraints according to the emergency aft restraint requirements table in FM 4-20.102/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010/TO 13C7-1-5.

#### MARKING RIGGED LOAD

2-54. Mark the rigged load according to FM 4-20.102/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010/TO 13C7-1-5, and as shown in Figure 2-55. Complete Declaration for Dangerous Goods. If the load varies from the one shown, the weight, height, CB, and parachute requirements must be recomputed.

#### **EQUIPMENT REQUIRED**

2-55. Use the equipment listed in Table 2-4 to rig this load.

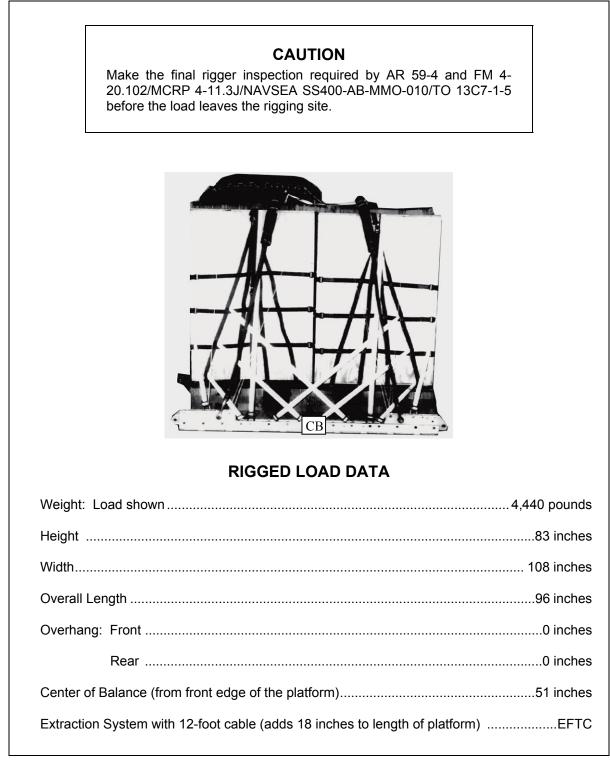


Figure 2-55. Four Fifteen-Round Containers Rigged in A-22 Cargo Slings on Type V Platform for Low-Velocity Airdrop

# Table 2-4. Equipment Required for Rigging Four 15 -Round Dragon or Dragon II Missile Containers in Four A-22 Cargo Slings on an 8-Foot, Type V Platform for Low-Velocity Airdrop

National Stock Number	Item	Quantity
8040-00-273-8713	Adhesive, paste, 1-gallon	As required
8465-00-587-3421	Bag, cargo, aerial delivery, type A-22	4
	Clevis, suspension:	
4030-00-678-8562	3/4-inch (medium) emergency restraint	2
4030-00-090-5354	1-inch (large)	5
4020-00-240-2146	Cord, nylon, type III	As required
1670-00-434-5783	Coupling, airdrop, extraction force transfer with 12-foot cable	1
1670-00-360-0328	Cover, clevis, large	1
8135-00-664-6958	Cushioning material, packaging, cellulose wadding	As required
8305-00-958-3685	Felt, 1/2-inch thick	As required
1670-01-183-2678	Leaf, extraction line	2
	Line, extraction, type XXVI nylon webbing:	
1670-01-062-6313	60-foot (1-loop)	1
	Or	
1670-01-107-7652	160-foot (1-loop)	2
1670-01-064-4452	60-foot (1-loop), type XXVI for C-17 drogue line	1
	Link assembly, two-point:	
5306-00-435-8994	Bolt, 1-inch diameter, 4-inch long	1
5310-00-232-5165	Nut, 1-inch, hexagonal	1
1670-00-003-1953	Plate, side 3 3/4-inch	1
5365-00-007-3414	Spacer, large	1
1670-00-753-3928	Pad, energy-dissipating, honeycomb	8 sheets
	Parachute:	
1670-01-016-7841	Cargo, G-11B	1
1670-01-063-3715	Cargo, extraction, 15-foot	1
	Platform, airdrop, type V, 8-foot	
1670-01-353-8425	Bracket assembly, EFTC	1
1670-01-162-2376	Bracket assembly, extraction	1
1670-01-162-2372	Clevis assembly	20
1670-01-162-2381	Tandem link	4
5530-00-128-4981	Plywood, 3/4-inch	2 sheets
1670-01-097-8816	Release, cargo parachute, M-1	1

# Table 2-4. Equipment Required for Rigging Four 15 -Round Dragon or Dragon II MissileContainers in Four A-22 Cargo Slings on an 8-Foot, Type V Platform for Low-VelocityAirdrop (Continued)

National Stock Number	Item	Quantity
	Sling, cargo airdrop:	
	For deployment line:	
1670-00-753-3792	12-foot (2-loop), type XXVI nylon webbing	1
	For riser extension:	
1670-01-062-6301	3-foot (2-loop), type XXVI nylon webbing	5
	For suspension:	
1670-01-063-7761	16-foot (2-loop), type XXVI nylon webbing	4
1670-00-040-8219	Strap parachute release, multicut	1
7515-00-266-5016	Tape, adhesive, 2-inch	As required
7501-00-266-6710	Tape, masking	As required
1670-00-937-0271	Tie-down assembly, 15-foot	20
	Webbing:	
8305-00-268-2411	Cotton, 1/4-inch, type I	As required
	Nylon:	-
8305-00-082-5752	Tubular, 1/2-inch	As required
8305-00-263-3591	Type VIII webbing	As required