TECHNICAL MANUAL

LOADING AND STOWAGE

OF MILITARY AMMUNITION

AND EXPLOSIVES ABOARD

BREAKBULK MERCHANT SHIPS

DEPARTMENTS OF THE ARMY AND THE NAVY

27 December1988

TECIHNICAL MANUAL
No. 55-607
NAVY PUBLICATION
NAVSEA OP 3221 REV 2

HEADQUARTERS
DEPARTMENTS OF THE ARMY
AND TIIE NAVY
WASHINGTON, DC, 27 December 1988

LOADING AND STOWAGE OF MILITARY AMMUNITION AND EXPLOSIVES ABOARD BREAKBULK MERCHANT SHIPS

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'This manual supersedes TM 55-607, NAVSEA OP 3221 Rev 1 September 1976

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CHAPTER 1
INTRODUCTION

1-1. Purpose and Scope

This manual provides an operational reference guide for loading military munitions and explosives aboard breakbulk merchant ships. Only breakbulk stowage methods are discussed. Container loading procedures are described by specific outloading drawings prepared by the Services. The text provides general guidance for military and civilian personnel engaged in loading, blocking, and bracing military explosives cargo for ocean movement by ships in conformance with the Code of Federal Regulations (CFR), Title 46, Part 146 (46 CFR146).

1-2. Report of Publication Improvements

Users of this publication are encouraged to recommend changes and submit comments for its improvement. Comments should be keyed to the specific page, paragraph, and line of the text in which the change is recommended. Reasons will be provided for each comment, to ensure understanding and complete evaluation. Comments should be prepared on DA Form 2028 (Recommended Changes to Publications and Blank Forms) or in a letter and forwarded to the Commander, Military Traffic Management Command, ATTN: MT-SA, 5611 Columbia Pike, Falls Church, VA 22041-5050, or the Commander, Naval Weapons Station Earle, ATTN: Naval Weapons Handling Laboratory, Colts Neck, New Jersey 07722. All proposed changes will be evaluated and approved by both commands.

1-3. Application and Intended Use

The information in this publication is intended for personnel, at shiploading activities, who are concerned with loading and shoring military explosives onboard merchant ships. Particular emphasis is placed on dunnaging, with text and illustrations directed to the requirements of blockers and bracers. Additional information concerning associated functions, such as cargo planning, equipment and material scheduling, inspection, and labor requirements, is sufficiently detailed to describe the complete environment of shiploading and cargo stowage. When used in conjunction with applicable Federal and military regulations, this manual will provide ammunition terminals with a synopsis of user-tested procedures for the safe securing of breakbulk ammunition and explosives. Shiploading drawings, as listed in the Department of the Army Pamphlet 310-24, are available for the stowage and shoring of US Army guided missile and large rocket components in accordance with approved methods and procedures. References are contained in appendix A.

1-4. Compliance With Federal Regulations

Procedures in this manual comply with requirements established in 46CFR146-29. These regulations prescribe the responsibilities of shippers and carriers of military explosives and hazardous materials and provide for their enforcement. Figure 1-1 shows a typical merchant ship being loaded with military ammunition and explosives.

1-5. Compliance by Navy Activities

Navy activities are required by OPNAV 8023.22A to comply with OP 3221/TM 55-607.

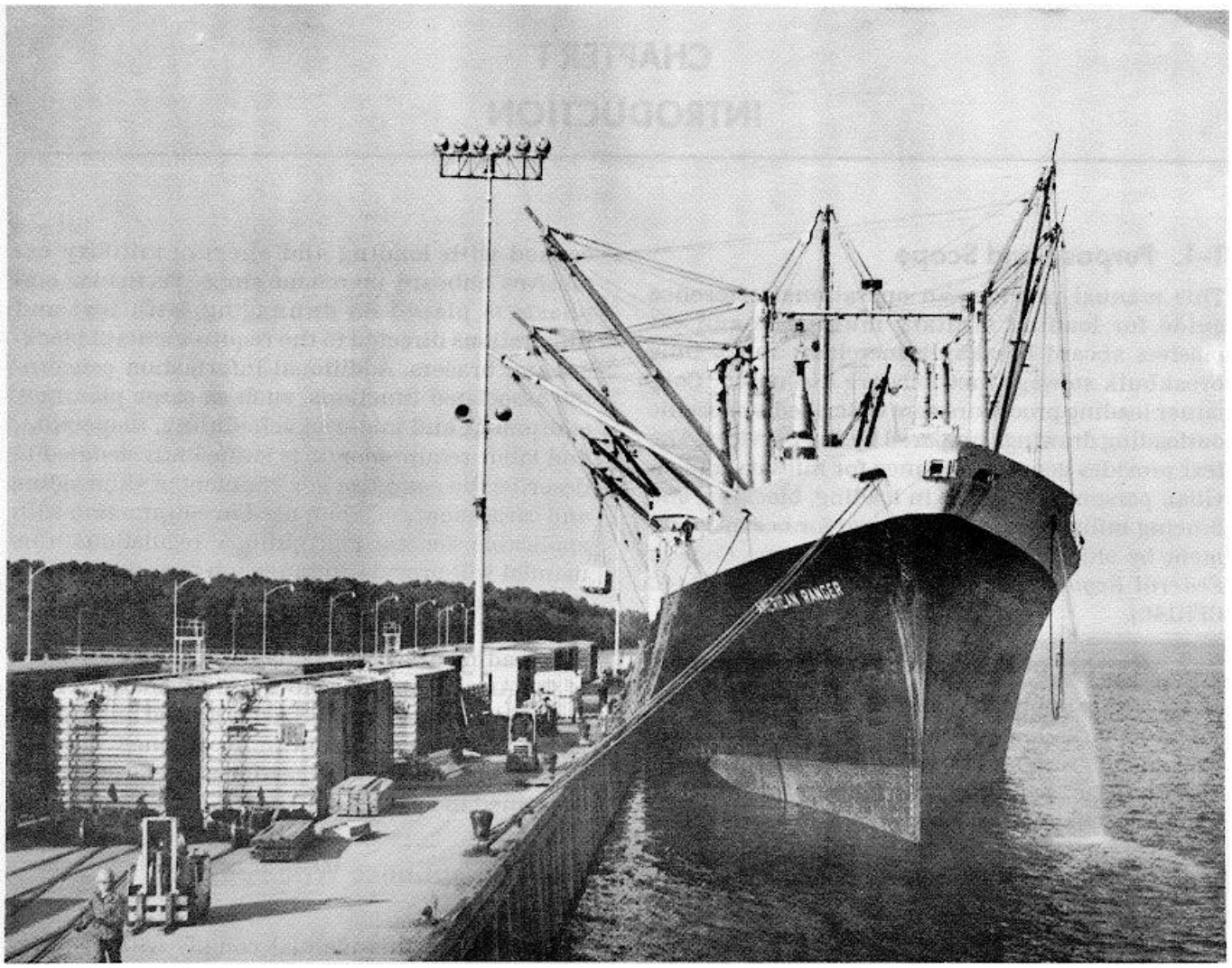

Figure 1-1 Military cargo being loaded aboard merchant-type ship.

CHAPTER 2
PERMITS, CERTIFICATES, INSPECTIONS, AND ACCEPTANCE

2-1. General

The hazardous properties of military explosives cargo require strict compliance with the accepted standards for packaging, marking, loading, and securing of dangerous cargoes. This chapter provides a summary of procedures for certification, inspections, and acceptance as required by 46CFR146 and local regulations.

2-2. Permit for Handling Military Explosives

Authorization to load, handle, or discharge military explosives and lethal chemicals, except Coast Guard Class I, on any vessel at a United States port must be obtained from the District Commander of the US Coast Guard, Captain of the Port, or other officer designated by the District Commander. Specific policies concerning permits for handling military explosives are defined by 46CFR146.29-13(a) and (b).

2-3. Certification of Cargo

Subject to the Code of Federal Regulations, the shipper is responsible for the preparation of any hazardous material offered for transportation by water. The following certification will be shown on the shipping paper and signed by the shipper: "This is to certify that the above-named articles are properly classified, described, packaged, marked, and labeled and are in proper condition for transportation, according to the applicable regulations of the Department of Transportation."

2-4. Inspections and Acceptance

a. Prior to commencement of the actual loading operation, all hatches and compartments in which military explosives cargo is to be carried will be thoroughly inspected by cargo operations personnel and qualified station inspectors. All defects and/or substandard conditions will be corrected prior to the loading operation in the affected hatch or compartment. A Coast Guard explosives loading detail (ELD) may be assigned to a vessel being worked at a Navy or Army depot, arsenal, ocean terminal, or other similar facility, unless the Commanding Officer of the facility declines the detail. However, staff directives or instructions issued by the individual Services can require mandatory acceptance of Coast Guard inspection details by the explosives terminal or station. When no Coast Guard ELD is assigned and in attendance, safe operations will be enforced by explosives-qualified inspectors from the port or station.

b. As the loading of each compartment is completed, the adequacy and acceptance of the stowage will be approved by authorized station personnel and inspectors and by an authorized ship's officer. Final acceptance of completed cargo stowage will be certified by the ship's master or his authorized representative. A cargo stowage inspection record may be used for this purpose, a sample of which is shown in figure 2-1.

FINAL HOLD INSPECTION, ACCEPTANCE AND CERTIFICATION OF SHIPS LOADED WITH MILITARY EXPLOSIVES AND HAZARDOUS MUNITIONS

SHIP	ACTIVITY	PIER	BERTH
SS AMERICAN KNIGHT	3CD NAVWPNSTA Concord	1	2

DATE AND TIME OF ARRIVAL	DATE AND TIME LOADING STARTED	DATE AND TIME LOADING COMPLETED
1030 HRS 10 AUG 74	0800 11 AUG 74	1530 14 AUG 74

DATE	TIME	HOLD & DECK	SHIP'S BLOCKER & BRACER SUPERVISOR (SIGNATURES)	SHIP'S OFFICER (SIGNATURES)	STATION/COAST GUARD INSPECTOR (SIGNATURES)
11 AUG 74	1300	#1 3RD	Bill Smith	John Andrews 1/O	Paul Ward LT, USCG
12	0900	2ND	Bill Smith	John Andrews 1/O	Paul Ward
12 AUG 74	1200	MAIN	Bill Smith	John Andrews 1/O	Paul Ward
11 AUG 74	1500	#2 IN BOTTOM	E White	G. Jones 2/O	Paul Ward LT, USCG
12 AUG 74	1300	3RD	E White	G. Jones 2/O	Paul Ward
12 AUG 74	0930	2ND	E White	G. Jones 2/O	Paul Ward
13 AUG 74	0900	MAIN	E White	G. Jones 2/O	Paul Ward
		#3			
		#4			
12 AUG 74	1100	#5		G. Jones 2/O	James Adams LTJG
12 AUG 74	1545	3RD		G. Jones 2/O	James Adams LTJG
13 AUG 74	1200	2ND		G. Jones 2/O	James Adams LTJG
14 AUG 74	0945	MAIN		G. Jones 2/O	James Adams LTJG
13 AUG 74	1115	#6 16' FLAT	Bill Smith	John Andrews 1/O	Paul Ward LT, USCG
13 AUG 74	1330	26' FLAT	Bill Smith	John Andrews 1/O	Paul Ward
14 AUG 74	0830	2ND	Bill Smith	John Andrews 1/O	Paul Ward
14 AUG 74	1300	MAIN	Bill Smith	John Andrews 1/O	Paul Ward
		#7			
		SPECIAL STOW.			
		SPECIAL STOW.			
		SPECIAL STOW.			
		SPECIAL STOW.			
		SPECIAL STOW.			

SAMPLE

HOLDS MARKED WITH ASTERISK * CONTAIN SECURITY ITEMS

CERTIFICATION OF FINAL INSPECTION

THE LOADING WAS CARRIED OUT IN ACCORDANCE WITH ALL APPLICABLE REGULATIONS AND THE STOWAGE HAS BEEN INSPECTED AND ACCEPTED AS SATISFACTORY. NO DAMAGE OR PILFERAGE NOTED.

(SIGNATURE) Thomas Parker
SHIP SUPERVISOR

(SIGNATURE) Paul Ward LT, USCG
STATION/COAST GUARD INSPECTOR

(SIGNATURE) Ernest Robbins
BLOCKER AND BRACER FOREMAN

THE STOWAGE HAS BEEN INSPECTED BY ME OR MY REPRESENTATIVE AND IS ACCEPTED AS SATISFACTORY. NO APPARENT DAMAGE OR PILFERAGE NOTED.

DATE 14 Aug 1974

(SIGNATURE) John Jones

Figure 2-1 Typical cargo stowage inspection record.

Should a dispute arise about the adequacy of the stowage, the matter should be referred to the Military Sealift Command (MSC) representative, the MSC Office, or the MSC Area Commander as appropriate.

2-5. Standard Feedback Forms and Systems

Cargo stowage is inspected and the cargo condition reported during and upon completion of the voyage.

a. SF 364 (Report of Discrepancy) (fig 2-2) will be prepared by the military load inspector, Coast TM 55-607/NAVSEA OP 3221 Rev 2 Guard inspector, or ship's master to report unsatisfactory conditions noted in received cargo, including item damage or loss resulting from improper packaging. Any deficiency in packaging involving ammunition, explosives, and other hazardous materials must be reported, whether or not damage or other unsatisfactory condition has resulted. SF 364 must be filed in any instance of improper identification or marking of items, packages, containers, or unitized loads of ammunition, explosives, or hazardous materials. Joint Regulation AR 700-58/NAVSUPINST 4030-29/AFR 71-13/ MCO P4030.29A/DSAR 4145.8 prescribes use of SF Form 364 and provides instructions for preparing, routing, and taking corrective action.

REPORT OF DISCREPANCY (ROD)

[X] SHIPPING [ ] PACKAGING

1. DATE OF PREPARATION: 6 May 88

2. REPORT NUMBER:

3. TO *(Name and address, include ZIP Code)*:
Chief, Storage Branch
U. S. Army Garrison, Honshu
APO Seattle 98764

4. FROM *(Name and address, include ZIP Code)*:
Water Terminal Branch
U. S. Army Garrison, Honshu
APO Seattle 98760

5a. SHIPPER'S NAME:
Ordnance Ammo Depot
Songhwan Ni, Korea
APO San Francisco 96271

5b. NUMBER AND DATE OF INVOICE:
A33333
1 May 88

6. TRANSPORTATION DOCUMENT NUMBER *(GBL, Waybill, TCN, etc.)*:
AX38541

7a. SHIPPER'S NUMBER *(Purchase Order/Shipment, Contract, etc.)*:
N/A

7b. OFFICE ADMINISTERING CONTRACT:
N/A

8. REQUISITIONER'S NUMBER *(Requisition, Purchase Request, etc.)*:
123xx125

9. SHIPMENT, BILLING, AND RECEIPT DATA				10. DISCREPANCY DATA				11.
NSN/PART NUMBER AND NOMENCLATURE (a)	UNIT OF ISSUE (b)	QUANTITY SHIPPED/ BILLED (c)	QUANTITY RECEIVED (d)	QUANTITY (a)	UNIT PRICE (b)	TOTAL COST (c)	CODE[1] (d)	ACTION CODE[2]
1315-00-0279-CJ30	1	2	50	50	$1.00	$50.00	Z	D

SAMPLE

12. REMARKS *(Continue on separate sheet of paper if necessary)*

Five pallets of propellant charge were found in damaged condition in Hatch No. 2 Lt of SS Green Lake during discharge operations at Hiro Port, Japan, on 7 Jul 87. Vessel sailed from Pusan, Korea. Damaged 5 pallets were delivered to storage branch, Dir. of Ammo., USAGH, on 8 Jul 87 via barge No. 74.

[1] DISCREPANCY CODES

CONDITION OF MATERIAL
- C1 — In condition other than that indicated on release/receipt document
- C2 — Expired shelf life
- C3 — Damaged parcel post shipment

SUPPLY DOCUMENTATION
- D1 — Not received
- D2 — Illegible or mutilated
- D3 — Incomplete improper or without authority *(Only when receipt cannot be properly processed)*

MISDIRECTED MATERIAL
- M1 — Addressed to wrong activity

OVERAGE/DUPLICATE SHIPMENTS
- O1 — Quantity in excess of that on receipt document
- O2 — Quantity in excess of that requested *(Other than unit of issue pack)*
- O3 — Quantity duplicates shipment

PACKING DISCREPANCY
- P1 — Improper preservation
- P2 — Improper packing
- P3 — Improper marking
- P4 — Improper unitization

PRODUCT QUALITY DEFICIENCIES
- Q1 — Deficient material *(Applicable to Grant Aid and FMS shipments only)*

SHORTAGE OF MATERIAL
- S1 — Quantity less than that on receipt document
- S2 — Quantity less that that requested *(Other than unit of issue pack)*
- S3 — Non-receipt of parcel post shipments

ITEM TECHNICAL DATA MARKINGS *(i.e., Name Plates, Log Books, Operating Handbooks, Special Instructions, etc.)*
- T1 — Missing
- T2 — Illegible or mutilated
- T3 — Precautionary operational markings missing
- T4 — Inspection data missing or incomplete
- T5 — Serviceability operating data missing or incomplete
- T6 — Warranty data missing

WRONG ITEM *(Identify requested item as a separate copy in Item 9 above)*
- W1 — Incorrect item received
- W2 — Unacceptable substitute

OTHER DISCREPANCIES
- Z1 — See remarks

[2] ACTION CODES
- 1A — Disposition instructions requested *(Reply on reverse)*
- 1B — Material being retained *(See remarks)*
- 1C — Supporting supply documentation requested
- 1D — Material still required expedite shipment *(Not applicable to (FMS)*
- 1E — Local purchase material to be returned at supplier's expense unless disposition instructions to the contrary are received within 15 days *(Reply on reverse) (Not applicable to FMS)*
- 1F — Replacement shipment requested *(Not applicable to FMS)*
- 1G — Reshipment not required. Item to be re-requisitioned.
- 1H — No action required. Information only
- 1Z — Other action requested *(See remarks)*

13. FUNDING AND ACCOUNTING DATA
N/A

14a. TYPED OR PRINTED NAME, TITLE, AND PHONE NUMBER OF PREPARING OFFICIAL:
Mr. James Hoover, ITO 927-4646

14b. SIGNATURE:

15. DISTRIBUTION ADDRESSEES FOR COPIES
2 - Chief, Storage Br. USAGH
1 - ORD Ammo Depot, Songhwan Ni, Korea

364-103 7540-00-159-4442 *(Previous edition is obsolete.)* **STANDARD FORM 364 (REV. 2-80)** Prescribed by GSA FPMR 101-26.8

Figure 2-2. Report of Discrepancy (ROD) (SF 364) (Sheet 1 of 2).

16. FROM:	17. DISTRIBUTION ADDRESSEES FOR COPIES
Same As #4	Same As #5

18. TO:	
Same As #3	Use window envelope to mail this document. Insert name and address, including ZIP Code, starting one typing space below the left dot. Each address line must NOT extend beyond right dot. Address must not exceed four single space typing lines.

19. IN ACCORDANCE WITH NOTICE OF DISCREPANCY ON FACE OF THIS FORM:

Fold here

a. MATERIAL [X] HAS BEEN [ ] WILL BE SHIPPED — DOCUMENT NUMBER: AX38541

b. [ ] NO RECORD OF SHIPMENT. RESUBMIT REPORT TO PROPER OFFICE UNDER APPROPRIATE REGULATION.

c. [ ] AN ADJUSTMENT IN BILLING HAS BEEN/WILL BE PROCESSED AS A: [ ] CREDIT [ ] DEBIT

d. [X] INVOICE/BILL ATTACHED

e. [X] PROOF OF DELIVERY (Parcel Post Shipments) OR EVIDENCE OF SHIPMENT ENCLOSED.

f. [ ] AN ADJUSTMENT IN BILLING FOR THE [illegible]RTED DISCREPANCY WILL NOT BE PROCESSED FOR THE FOLLOWING REASON WHICH IS CITED IN THE INDICATED REGULATION.

SAMPLE

(1) REASON FOR NOT PROCESSING		(2) PRESCRIBING REGULATION
	(a) DISCREPANCY WAS NOT REPORTED WITHIN THE TIME FRAMES ALLOWED AND/OR	(a) CHAPTER 5 OF THE GSA HANDBOOK, DISCREPANCIES OR DEFICIENCIES IN GSA OR DOD SHIPMENTS, MATERIAL, OR BILLINGS (FPMR 101-26.8)
	(b) DOLLAR VALUE DOES NOT MEET THE CRITERIA PRESCRIBED IN THE REGULATION OR AGREEMENT INDICATED IN 19f(2)	(b) CHAP. 2 AND/OR 7 OF DOD 4000.25-7-M, MILITARY STANDARD BILLING SYSTEM (MILSBILLS) AND/OR DD 1513, U.S. DOD OFFER AND ACCEPTANCE, AS APPLICABLE.

20. THE FOLLOWING DISPOSITION IS TO BE MADE OF THE REFERENCED MATERIAL:

a. [ ] PROCESS FOR DISPOSAL IN ACCORDANCE WITH SERVICE/AGENCY DIRECTIVES.	b. [X] REPRESENTATIVE WILL CALL FOR DISCUSSION CONCERNING DISPOSITION IN:	DAYS: 15
c. [ ] RETAIN MATERIAL AT NO CHARGE.	d. [ ] MATERIAL WILL BE PICKED UP IN:	DAYS:

e. [ ] SHIP MATERIAL *(Specify location)*:

Fold here

(1) [ ] GBL APPROPRIATION CHARGEABLE:

(2) [ ] CHARGES COLLECT-VIA: [ ] FREIGHT [ ] EXPRESS [ ] PARCEL POST *($ _____ postage advanced herewith. NOTE: Please enclose postage. Material cannot be returned Parcel Post collect.)*

(3) [ ] PARCEL POST LABEL ATTACHED (4) [ ] FREIGHT PREPAID

f. [ ] OTHER *(Specify)*

21.	22.	DATE
[ ] IF MATERIAL IS STILL REQUIRED, SUBMIT NEW REQUISITION	[X] REPLACEMENT WITH SATISFACTORY MATERIAL WILL BE MADE ON OR BEFORE:	15 May 88

23. REMARKS *(Continue on separate sheet of paper if necessary)*

N/A

24a. TYPED OR PRINTED NAME AND PHONE NUMBER OF PREPARING OFFICIAL	24b. SIGNATURE	24c. DATE
Mr. James Hoover, ITO 927-4646		1 May 88

U.S. GOVERNMENT PRINTING OFFICE: 1987-177-151

STANDARD FORM 364 BACK (REV. 2-80)

Figure 2-2. Report of Discrepancy (ROD) (SF 364) (Sheet 2 of 2).

b. Details of' improper loading, stowing, handling, blocking and bracing, and lashing are reported by the discharging activity on Standard Form 361 (Transportation Discrepancy Report) (fig 2-3). Joint Regulation AR 55-38/NAVSUPINST 4610.33A/AFM 75-18/MCO P4610.19B/DSAR 4500.15 provides details for preparation and disposition of the Standard Form 361.