

**STP 9-55B12-SM-TG**

**HEADQUARTERS  
DEPARTMENT OF THE ARMY**

**Soldier's Manual  
and Trainer's Guide**

**MOS 55B**

**Ammunition Specialist**

**SKILL LEVELS 1 and 2**

**DECEMBER 2003**

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# **SOLDIER'S MANUAL and TRAINER'S GUIDE**

## **MOS 55B**

### **Ammunition Specialist**

#### **Skill Levels 1 and 2**

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## Preface

This soldier training publication (STP) is intended for soldiers holding MOS 55B, Skill Levels 1 and 2, their supervisors, trainers, and commanders. It contains an MOS training plan that provides information needed to plan, conduct, and evaluate unit training, one of the most important jobs of military leaders. It includes standardized training objectives in the form of task summaries that can be used to train and evaluate soldiers on critical tasks supporting unit missions during wartime.

Soldiers holding MOS 55B should have access to this publication. Trainers and first-line supervisors should actively plan for soldiers' access, making it available in work areas, unit learning centers, and unit libraries. However, it is not intended for an individual copy to be provided to each MOS holder. The STP is obtainable online from Army Knowledge Online (AKO) at <http://www.us.army.mil> and the Reimer Digital Library (RDL) at <http://www.adtdl.army.mil>.

Tasks in this manual apply to both Active and Reserve Component soldiers.

The proponent of this publication is HQ TRADOC. Submit comments and recommendations on DA Form 2028 (Recommended Changes to Publications and Blank Forms) directly to: Department of the Army, Training Directorate, Ordnance Training Division, ATTN: ATCL-AO, 401 First Street, Suite 225, Fort Lee, VA 23801-1511.

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

## Chapter 1

### Introduction

1-1. General. This soldier training publication (STP) identifies individual MOS training requirements for soldiers holding MOS 55B. Commanders, trainers, and soldiers should use it to plan, conduct, and evaluate individual training in units. The STP is the primary MOS reference for supporting self-development, evaluating MOS proficiency, and training 55B soldiers. Commanders employ two primary methods to evaluate soldiers' proficiency:

- Commander's evaluation. Commander's evaluations are local tests or assessments of soldiers' performance of MOS-specific and common tasks critical to the unit mission. They may be conducted year-round.
- Common task test (CTT). CTTs are hands-on tests used to evaluate proficiency on common tasks. Alternate written tests are provided if equipment is not available for hands-on testing.

This publication is the soldier's primary reference to prepare for a commander's evaluation of MOS-specific tasks. It contains task summaries for all critical tasks specific to the MOS and skill level (SL). Commanders and trainers will use this soldier's manual/trainer's guide (SM/TG) to plan and conduct training and commander's evaluations.

Chapter 2, Trainer's Guide, contains information needed to plan training requirements for this MOS. The trainer's guide--

- Identifies subject areas in which soldiers must be trained.
- Identifies critical tasks for each subject area.
- Specifies where soldiers are initially trained on each task.
- Recommends how often each task should be trained to sustain proficiency.
- Recommends a strategy for cross-training soldiers.
- Recommends a strategy for training soldiers to perform higher-level tasks.

Use this STP along with STP 21-1-SMCT (Soldier's Manual of Common Tasks, Skill Level 1), STP 21-24-SMCT (Soldier's Manual of Common Tasks, Skill Levels 2-4), Army training and evaluation programs (ARTEPs), FM 25-4 (How to Conduct Training Exercises), FM 25-5 (Training for Mobilization and War), FM 7-0 (Training the Force), and FM 25-101 (Battle-Focused Training) to establish effective training plans and programs that integrate soldier, leader, and collective tasks.

1-2. Task Summaries. Task summaries outline wartime performance requirements for each critical task in the STP. They provide both soldier and trainer with the information necessary to prepare, conduct, and evaluate critical task training. As a minimum, task summaries include information soldiers must know and skills they must perform to standard for each task. Following is the task summary format:

- Task number. The task number is a 10-digit number that identifies the task and skill level. Include the task number and title in any correspondence relating to the task.
- Task title. The task title identifies the action to be performed.

- **Conditions.** The task conditions statement describes the field or garrison conditions under which the task will be performed and identifies the equipment, tools, references, job aids, and supporting personnel that the soldier needs to perform the task in wartime.
- **Standards.** The task standards describe how well and to what level of proficiency the soldier must perform the task under wartime conditions. Standards are typically expressed in terms of accuracy, completeness, duration, sequence, speed, and tolerance.
- **Performance measures.** This section identifies specific actions that the soldier must accomplish to complete the task successfully. Performance measures appear in a GO/NO-GO rating format for easy evaluation. Some tasks may also include detailed training information in a Training Information Outline and an Evaluation Preparation Section. The Evaluation Preparation Section indicates necessary modifications to task performance in order to train and evaluate a task that cannot be trained to the wartime standard under wartime conditions. It may also include special training and evaluation preparation instructions to accommodate these modifications and any instructions that should be given to the soldier before evaluation.
- **References.** This section identifies references that provide more detailed explanations of task performance requirements than are given in the task summary.
- **Warnings.** Warnings alert users to the possibility of immediate personal injury or equipment damage.
- **Notes.** Notes provide additional supportive explanations or tips relating to task performance.

1-3. Soldier's Responsibilities. Each soldier is responsible for performing individual tasks identified by the first-line supervisor based on the unit's mission-essential task list (METL). Soldiers must perform tasks to the standards included in the task summary. If soldiers have questions about tasks or which tasks in this manual they must perform, they are responsible for asking their first-line supervisor for clarification. First-line supervisors know how to perform each task or can direct soldiers to appropriate training materials, including current field manuals, technical manuals, and Army regulations. Soldiers are responsible for using these materials to maintain performance. They are also responsible for maintaining performance of all common tasks listed in the SMCTs at their current skill level and below.

Periodically, soldiers should ask their supervisor or another soldier to check their performance to ensure that they can perform the tasks.

1-4. NCO Self-Development and the STP. Self-development is a key component of leader development. Leaders follow planned, progressive, sequential self-development programs developed by the individual NCO and his or her first-line supervisor to enhance and sustain military competencies. Self-development consists of individual study, research, professional reading, practice, and self-assessment. The self-development concept requires NCOs, as Army professionals, to take responsibility for remaining current in all phases of their MOS. The STP is the NCOs primary source for maintaining MOS proficiency.

Another important resource for self-development is the Army Correspondence Course Program (ACCP). Refer to DA Pamphlet 350-59 (Army Correspondence Course Program Catalog) for detailed eligibility requirements and enrollment information. The catalog is available at local education centers or online through the Army Institute for Professional Development (AIPD) web site, which offers online enrollment: <http://atsc.army.mil/accp/aipd.htm>.

1-5. Commander's Responsibilities. Commanders must ensure that their unit training plans prepare the unit for war by enabling soldiers to develop and sustain proficiency in their MOS and skill level tasks. Commanders should design unit-training programs to provide individual training for all soldiers assigned to the unit and to evaluate soldier proficiency routinely as part of the commander's evaluation program. The unit-training program should also integrate individual training with crew drills and other collective

training. The MOS training plan provides information on which to base integration, cross-train, train-up, and sustainment training programs. Commanders should use the MOS training plan when developing unit training plans.

1-6. Trainer's Responsibilities. Training is the business of all unit leaders. First-line leaders are the principal trainers in the unit because they directly supervise soldiers and lead crews, squads, sections, and teams.

Trainers can use the MOS training plan to determine the critical tasks for which each soldier is responsible. They should tell each soldier which tasks he or she must be able to perform. Trainers should evaluate task performance to determine which tasks each soldier can or cannot perform to standard. Soldiers who cannot perform a task to standard need further training. This STP helps the trainer do what trainers are paid to do train. Developing effective training is explained in detail in FM 7-0 and FM 25-101.

Focus on the results of the soldier's performance (evaluate the product). Comments should not be written on the task summary.

Trainers can monitor the progress of their soldiers by recording task GO/NO-GO results. Trainers may use DA Form 5164-R (Hands-On Evaluation) to record the performance measures a soldier passed or failed. The form, which may be locally reproduced, applies to all tasks in this STP. Trainers may have DA Form 5164-R overprinted with information unique to their training requirements before reproducing it. See Appendix A of this STP for a sample DA Form 5164-R with instructions.

Trainers may use DA Form 5165-R (Field Expedient Squad Book) to record hands-on GO/NO-GO results for a group of soldiers (for example, a crew, section, or squad) having the same MOS and skill level. This form supports conduct of commander's evaluations, and can be used to record training results gathered in the field during slack time for all MOSs and skill levels. Use of this form is optional. See Appendix B for a sample DA Form 5165-R with instructions. Trainers should work with each soldier until tasks can be performed to specific task summary standards.

1-7. Training Support. References have been identified for each task to assist in planning and conducting training. A consolidated list of references identified by type, publication number, and title and a comprehensive glossary of acronyms, abbreviations, and definitions are included in this STP. Every task summary in this STP includes performance measures, which trainers may use year-round to determine if soldiers can perform critical tasks to the specified standards. The performance measures identify what the trainer needs to observe to score a soldier's performance. A blank space is provided for the trainer to check either the GO or NO-GO column for each performance measure. Some tasks require the trainer to watch the soldier perform them (evaluate the process). Other tasks call for the trainer to focus on the results of the soldier's performance (evaluate the product).

## Chapter 2

### Trainer's Guide

2-1. General. The MOS Training Plan (MTP) identifies the essential components of a unit training plan for individual training. Units have different training needs and requirements based on differences in environment, location, equipment, dispersion, and similar factors. Therefore, the MTP should be used as a guide for conducting unit training and not a rigid standard. The MTP consists of two parts. Each part is designed to assist the commander in preparing a unit training plan which satisfies integration, cross training, training up, and sustainment training requirements for soldiers in this MOS.

Part One of the MTP shows the relationship of an MOS skill level between duty position and critical tasks. These critical tasks are grouped by task commonality into subject areas.

Section I lists subject area numbers and titles used throughout the MTP. These subject areas are used to define the training requirements for each duty position within an MOS.

Section II identifies the total training requirement for each duty position within an MOS and provides a recommendation for cross training and train-up/merger training.

- **Duty Position Column.** This column lists the duty positions of the MOS, by skill level, which have different training requirements.
- **Subject Area Column.** This column lists, by numerical key (see Section I), the subject areas a soldier must be proficient in to perform in that duty position.
- **Cross Train Column.** This column lists the recommended duty position for which soldiers should be cross trained.
- **Train-up/Merger Column.** This column lists the corresponding duty position for the next higher skill level or MOSC the soldier will merge into on promotion.

Part Two lists, by general subject areas, the critical tasks to be trained in an MOS and the type of training required (resident, integration, or sustainment).

- **Subject Area Column.** This column lists the subject area number and title in the same order as Section I, Part One of the MTP.
- **Task Number Column.** This column lists the task numbers for all tasks included in the subject area.
- **Title Column.** This column lists the task title for each task in the subject area.
- **Training Location Column.** This column identifies the training location where the task is first trained to soldier training publications standards. If the task is first trained to standard in the unit, the word "Unit" will be in this column. If the task is first trained to standard in the training base, it will identify, by brevity code (ANCOC, BNCOC, etc.), the resident course where the task was taught. Figure 2-1 contains a list of training locations and their corresponding brevity codes.

<b>AIT</b>	Advanced Individual Training
<b>UNIT</b>	Trained in the Unit

Figure 2-1. Training Locations

- **Sustainment Training Frequency Column.** This column indicates the recommended frequency at which the tasks should be trained to ensure soldiers maintain task proficiency. Figure 2-2 identifies the frequency codes used in this column.

<b>BA</b>	- Biannually
<b>AN</b>	- Annually
<b>SA</b>	- Semiannually
<b>QT</b>	- Quarterly
<b>MO</b>	- Monthly
<b>BW</b>	- Biweekly
<b>WK</b>	- Weekly

Figure 2-2. Sustainment Training Frequency Codes

- **Sustainment Training Skill Level Column.** This column lists the skill levels of the MOS for which soldiers must receive sustainment training to ensure they maintain proficiency to soldier’s manual standards.

2-2. Subject Area Codes.

**Skill Level 1**

- 1 Operate Materials Handling Equipment
- 2 Receipt Procedures
- 3 Identify Ammunition
- 4 Storage Procedures
- 5 Issue Procedures
- 6 Manual Stock Record Procedures
- 7 Automated Stock Record Procedures
- 8 Ammunition Unit Operations

**Skill Level 2**

- 8 Ammunition Unit Operations

2-3. Duty Position Training Requirements.

<b>SKILL LEVEL</b>	<b>DUTY POSITION</b>	<b>SUBJECT AREA</b>	<b>CROSS TRAINING</b>	<b>TRAIN-UP MERGER</b>
SL1	55B10	1-8	NA	NA
SL2	55B20	8	NA	NA

2-4. Critical Tasks List.**MOS TRAINING PLAN  
55B12****CRITICAL TASKS**

<b>Subject Area</b>	<b>Task Number</b>	<b>Title</b>	<b>Training Location</b>	<b>Sust Tng Freq</b>	<b>Sust Tng SL</b>
<b>Skill Level 1</b>					
1. Operate Materials Handling Equipment	093-55B-1351	Perform Operator Maintenance on MHE	AIT	WK	1-2
	093-55B-1350	Operate MHE	AIT	MO	1-2
2. Receipt Procedures	093-55B-1345	Process Unit Returns	AIT	BM	1-4
	093-55B-1372	Receive Munitions	AIT	BM	1-4
3. Identify Ammunition	093-55B-1340	Identify Munitions	AIT	QT	1-4
4. Storage Procedures	093-55B-1346	Store Munitions	AIT	QT	1-4
	093-55B-1348	Fight Fires In a Munitions Storage Area	AIT	SA	1-4
	093-55B-1349	Perform Preservation and Packaging of Munitions	AIT	SA	1-4
5. Issue Procedures	093-55B-1347	Issue Munitions	AIT	QT	1-4
	093-55B-1352	Perform Munitions Sling-Out Operations	AIT	QT	1-4
6. Manual Stock Record Procedures	093-55B-1354	Inventory Munitions	AIT	MO	1-2
	093-55B-1362	Develop Manual Back-Up SAAS/ASA Stock Records	AIT	QT	1-4
7. Automated Stock Record Procedures	093-55B-1401	Prepare Survey and Inventory Functions	UNIT	QT	1-4
	093-55B-1356	Maintain Automated DAO Munitions Records and Reports	UNIT	QT	1-4
	093-55B-1400	Prepare Documents using SAAS-MOD	UNIT	QT	1-4
	093-55B-1402	Produce SAAS Reports	UNIT	QT	1-4

## CRITICAL TASKS

Subject Area	Task Number	Title	Training Location	Sust Tng Freq	Sust Tng SL
	093-55B-1403	Access Data Browser	UNIT	QT	1-4
	093-55B-1406	Input Unit Resources	UNIT	QT	1-4
	093-55B-1407	Input Unit Profiles	UNIT	QT	1-4
	093-55B-1409	Input Surveillance and Maintenance Reports	UNIT	QT	1-4
	093-55B-1410	Access SAAS-MOD Systems	UNIT	QT	1-4
	093-55B-1411	Input Unit Basic Load (ABL) Data	UNIT	QT	1-4
	093-55B-1412	Input Training Ammunition Requirements and Usage (DAO)	UNIT	QT	1-4
	093-55B-1413	Input Task Force Organizations (DAO)	UNIT	QT	1-4
	093-55B-1414	Input Summary and Recording Accounts (MMC)	UNIT	QT	1-4
	093-55B-1415	Process Excesses and Shortage Data (MMC)	UNIT	QT	1-4
	093-55B-1416	Input Directive and Requisition Data (MMC)	UNIT	QT	1-4
	093-55B-1417	Perform Maintenance Transfers	UNIT	QT	1-4
	093-55B-1418	Upload/Download AIT Data to/from SAAS-MOD	UNIT	QT	1-4
	093-55B-1419	Establish SAAS-MOD Communications	UNIT	QT	1-4
	093-55B-1420	Perform SAAS-MOD System Backups	UNIT	QT	1-4
8. Ammunition Unit Operations	093-55B-1343	Perform Destruction of Munitions	AIT	AN	1-4
	093-55B-1371	Ship Munitions	AIT	QT	1-4
	093-55B-1373	Prepare Retrograde Operations	UNIT	SA	1-2
<b>Skill Level 2</b>					
	093-55B-2175	Prepare Munitions for Shipment	UNIT	QT	2-4
	093-55B-2176	Prepare Site for Storage of Munitions	UNIT	QT	2-4
	093-55B-2179	Perform Retrograde Operations	UNIT	QT	2-4

**Chapter 3**

**MOS/Skill Level Tasks**

Skill Level 1

Subject Area 1: Operate Materials Handling Equipment

**Perform Operator Maintenance on MHE**

**093-55B-1351**

**Conditions:** Perform this task at an ammunition supply point (ASP), corps storage area (CSA), or ammunition transfer point (ATP) given the following: DA Form 2404; 6,000-pound variable reach rough terrain forklift (VRRTFL); 10,000-pound all terrain lifter articulated system (ATLAS); pencil; tire gauge; DA Form 2404; TM 10-3930-660-10; TM 10-3930-673-10; safety clothes and equipment; fuel; oil; coolant; hydraulic fluid; rags.

**Standards:** Correctly performed a daily preventive maintenance checks and services (PMCS) on a 6,000-pound VRRTFL using TM 10-3930-660-10 (Operator/Crew Preventive Maintenance Checks and Services Table) and 10,000 pound ATLAS using TM 10-3930-673-10 (Operator/Crew Preventive Maintenance Checks and Services Table). Corrected or annotated all deficiencies on DA Form 2404. Observed all safety precautions.

**Evaluation Preparation:** Setup: All required material and equipment in a serviceable condition must be available for the soldier to complete this task. Create minor deficiencies on the forklift for the soldier to identify using the procedures outlined in TM 10-3930-660-10 for a 6,000-pound VRRTFL and TM 10-3930-673-10 for a 10,000-pound ATLAS. Check that all manuals and forms are updated with current changes available to the soldier. A ground guide is required to assist in the performance of this task. Brief Soldier: Tell the soldier to check the materials, forms, and manuals for completeness and to check everything needed to perform the task. Instruct the soldier to perform all checks outlined in TM 10-3930-660-10 or TM 10-3930-673-10 and correct or annotate all deficiencies on DA Form 2404. Inform the soldier that ground guides will be provided to assist during this task.

**Performance Measures**

**GO      NO GO**

NOTE: For specific maintenance procedures, refer to the equipment's operator manual.

- |  |   |   |
|--|---|---|
| 1. Completed appropriate introductory blocks of DA Form 2404 or electronic version.  | — | — |
| NOTE: All warnings and safety precautions must be observed while performing this task. Failure to follow instructions could result in personnel injuries, death, or damage to the equipment. |   |   |
| 2. Conducted before-operation maintenance checks in accordance with the appropriate equipment manuals.   | — | — |
| 3. Recorded deficiencies on the maintenance worksheet and corrected operator level shortcomings.   | — | — |
| 4. Conducted engine start-up procedures.   | — | — |
| 5. Conducted during-operation maintenance checks in accordance with the equipment manual.  | — | — |
| 6. Recorded deficiencies on the maintenance worksheet as necessary.  | — | — |

**Performance Measures**

	<u>GO</u>	<u>NO GO</u>
7. Conducted proper engine shutdown procedures and after-operation maintenance checks as directed in the equipment's manual.	—	—
8. Completed the maintenance worksheet and submitted it to the supervisor.	—	—

**Evaluation Guidance:** Score the soldier GO if all steps are passed (P). Score the soldier NO-GO if any step is failed (F). If the soldier fails any step, show what was done wrong and how to do it correctly.

**References**

**Required**

DA FORM 2404

TM 10-3930-660-10

**Related**

DA PAM 738-750

**Operate MHE  
093-55B-1350**

**Conditions:** Perform this task at an ammunition supply point (ASP), corps storage area (CSA), or ammunition transfer point (ATP), given the following: 6,000-pound variable reach rough terrain forklift (VRRTFL); 10,000-pound all terrain lifting army system (ATLAS); hearing protection; palletized ammunition; multiple launch rocket system pods; transport vehicle (with or without trailer); American National Standards Institute/International Organization for Standards (ANSI/ISO) container; railcar; storage magazines; safety clothing and equipment; additional personnel (ground guides.)

**Standards:** Operated a 6,000-pound VRRTFL or 10,000-pound ATLAS safely and correctly without causing injury to self or other personnel or damaging equipment, ammunition, or the environment.

**Evaluation Preparation:** Setup: Have all required material and equipment in a serviceable condition to complete this task available for the soldier. A ground guide is required to assist in the performance of this task. Brief Soldier: Tell the soldier to load and off-load ammunition from a transport vehicle or place the ammunition in a designated area. Have the soldier check all materials and equipment required to complete this task. Inform the soldier that ground guides will be provided and to follow the ground guides instructions and signals while operating the forklift.

**Performance Measures**

**GO      NO GO**

NOTE: Task No. 093-55B-1351 must be completed before performing this task. Materiel handling equipment (MHE) refers to a variety of pieces of equipment that contain distinct operational procedures. The procedures listed are general; refer to the equipment operator's manual for specific procedures and evaluation guidelines.

- |   |     |     |
|---|-----|-----|
| 1. Checked for obstacles in the MHE surroundings.                                       | ___ | ___ |
| 2. Used three-points of contact to enter the vehicle.                                   | ___ | ___ |
| 3. Fastened the seat belt and properly adjusted the seat as necessary.                  | ___ | ___ |
| 4. Checked mirrors and adjusted as necessary.   | ___ | ___ |
| 5. Conducted proper engine starting procedures.   | ___ | ___ |
| 6. Operated MHE to load and unload ammunition in accordance with the operator's manual. | ___ | ___ |
| 7. Followed the ground guide directions.  | ___ | ___ |
| 8. Conducted proper engine stopping procedures.   | ___ | ___ |
| 9. Used three-points of contact to exit the vehicle.                                    | ___ | ___ |
| 10. Conducted post-operational checks as directed in the operator's manual.             | ___ | ___ |
| 11. Chocked the vehicle's wheels.   | ___ | ___ |

**Evaluation Guidance:** Score the soldier GO if all steps are passed (P). Score the soldier NO-GO if any step is failed (F). If the soldier fails any step, show what was done wrong and how to do it correctly.

**References  
Required**

**Related  
TM 10-3930-660-10**

Subject Area 2: Receipt Procedures

**Process Unit Returns**

**093-55B-1345**

**Conditions:** Perform this task at a segregation area of an ammunition supply point (ASP) or corps storage area (CSA) given a partially prepared DA Form 3151-R for a unit turn-in of ammunition and the following: packaged or unpackaged ammunition; DA Form 3020-R; DD Form 626; DA Pam 710-2-1; DA Pam 710-2-2; transport vehicles; MHE; safety clothing and equipment; banding equipment and materials; lead wire sealer and lead wire seals; fire symbols; chemical symbols; stencil equipment and materials; packaging containers and materials; inspection line with equipment; tie down straps; dunnage; pencil; orange paint; additional personnel; applicable ammunition drawings.

**Standards:** Properly received, segregated and checked for serviceability, inventoried, repacked, remarked, and accounted for the unit's ammunition turn-in. Correctly completed, signed, dated, and returned DA Form 3151-R to stock control. Annotated the unit's ammunition turn-in on DA Form 3020-R. Performed this task error free and without causing injury to self or other personnel or damage to the environment or to any equipment.

**Evaluation Preparation:** Setup: Intentionally mix ammunition items that should NOT be stored together and unserviceable and serviceable ammunition items and place them in the same stack. Have all required material and equipment in a serviceable condition to complete this task available for the soldier. Check that all materials, manuals, and forms required in the conditions section are up dated with current changes and made available to the soldier. A unit representative is required to sign the ammunition document. Provide ground guides as needed. Additional personnel must be available for receiving, segregating, repacking, and remarking returned ammunition. Brief Soldier: Tell the soldier to process a unit's ammunition turn-in using all of the required equipment, material, and forms. Check the equipment, materials, and forms to make sure that everything needed for the task is available. Tell the soldier that additional personnel are available for receiving, segregating, repacking, remarking, and inventorying returned ammunition. Remind the soldier to use caution when handling and examining these items as they may present a safety hazard.

**Performance Measures**

CAUTION: Extreme care and judgment must be used when handling and examining a unit's ammunition turn-ins as they may present a safety hazard.

	<u>GO</u>	<u>NO GO</u>
1. Received partially completed DA Form 3151-R from stock control.	_____	_____
NOTE: Vehicles will be inspected using DD Form 626 before the vehicles enter the storage area.		
2. Escorted the loaded vehicle to the segregation area.	_____	_____
3. Checked that the appropriate fire symbols were displayed at the segregation area.	_____	_____
NOTE: The fire symbol representing the MOST dangerous hazard must be displayed.		
4. Checked that two hand held fire extinguishers rated 10 BC or higher are present at the location.	_____	_____
5. Used MHE and a ground guide to download ammunition from vehicles, if required.	_____	_____
6. Segregated ammunition by serviceability, type, lot number, national stock number (NSN), and Department of Defense Identification Code (DODIC).	_____	_____

**Performance Measures**

WARNING: If any items are found in a hazardous condition, stop operation and notify your supervisor. Serviceable ammunition MUST be separated from unserviceable ammunition in ALL cases.

	<u>GO</u>	<u>NO GO</u>
<ul style="list-style-type: none"> <li>a. Checked ammunition for loose rounds.</li> <li>b. Checked all opened boxes and containers.                             <ul style="list-style-type: none"> <li>(1) Identified ammunition in a serviceable condition and set aside for repackaging and remarking.</li> <li>(2) Identified ammunition in an unserviceable condition and set aside for surveillance personnel to assign condition codes.</li> </ul> </li> </ul>	—	—
7. Used DA Form 3151-R to identify ammunition for turn-in.	—	—
8. Repacked serviceable ammunition in serviceable containers and stencil containers, as required according to the applicable ammunition drawing.	—	—
9. Repacked serviceable loose rounds in original type containers.	—	—
10. Painted containers orange to indicate light boxes and re-stencil, if applicable.	—	—
NOTE: Qualified surveillance personnel will determine serviceability of ammunition and will assign the ammunition condition code (ACC).		
11. Packed unserviceable ammunition in suitable containers and mark containers indicating unserviceable content.	—	—
12. Partially completed the DA Form 3151-R. <ul style="list-style-type: none"> <li>a. Recorded the ACC as assigned by surveillance personnel.</li> <li>b. Recorded the number of pallets and boxes.</li> <li>c. Recorded the total number of rounds.</li> </ul>	—	—
13. Assisted in loading and securing the ammunition on the unit's vehicles.	—	—
14. Escorted the unit vehicles to the vehicle holding area.	—	—
15. Returned the partially completed DA Form 3151-R to stock control.	—	—
NOTE: Stock control will assign the ammunitions storage location.		
16. Received the DA Form 3151-R with the storage location identified from stock control.	—	—
17. Escorted the unit vehicle to the location identified on the DA Form 3151-R.	—	—
18. Checked that two hand held fire extinguishers are present at the location.	—	—
19. Prepared the vehicle to be downloaded. <ul style="list-style-type: none"> <li>a. Set the parking brake.</li> <li>b. Turned off the ignition.</li> <li>c. Placed the transmission in the proper gear: gearshift in neutral for multifuel vehicles and first gear for gas powered vehicles.</li> <li>d. Chocked at least one wheel.</li> </ul>	—	—
20. Used MHE and a ground guide to download ammunition from vehicles, if required.	—	—
21. Placed the ammunition into storage.	—	—
22. Recorded the unit's ammunition turn-in on DA Form 3020-R.	—	—
23. Had the unit representative sign and date as the issuing checker in the Signature of Issuing Checker block and enter Julian date on DA Form 3151-R.	—	—

**Performance Measures**

**GO**    **NO GO**

- |  |    |    |
|--|----|----|
| 24. Signed and dated as the receiving checker in the Signature of Receiving Checker block and enter Julian date on DA Form 3151-R. | —— | —— |
| 25. Escorted the unit vehicles to the vehicle holding area.  | —— | —— |
| 26. Returned the DA Form 3151-R to stock control.  | —— | —— |

NOTE: Stock control transfers the actual quantity received from DA Form 3151-R to DA Form 581, completes the transaction and gives a copy of DA Form 581 and DA Form 3151-R to the unit representative.

**Evaluation Guidance:** Score the soldier GO if all steps are passed (P). Score the soldier NO-GO if any step is failed (F). If the soldier fails any step, show what was done wrong and how to do it correctly.

**References**

**Required**

- DA FORM 3020-R
- DA FORM 3151-R
- DA FORM 581
- DA PAM 710-2-1
- DA PAM 710-2-2
- DD FORM 626

**Related**

- AR 735-5
- FM 4-30.13
- MIL STD 1168A
- MIL STD 129J
- MIL STD 709C

**Receive Munitions  
093-55B-1372**

**Conditions:** Perform this task at an ammunition storage site given the following: ammunition in-transit notification from the material management center (MMC); transport conveyances; personnel safety equipment; fire and chemical hazard symbols; fire extinguishers; materiel handling equipment (MHE); hammer and crowbar; banding equipment; pencil and paper; DA Form 3020-R; DA Form 3151-R; dunnage; storage drawings.

**Standards:** Properly received, segregated, inspected, inventoried, and stored ammunition at a storage facility. Completed all forms accurately, keeping accountability of received items. Performed this task error free and without causing personnel injuries or damage to equipment or environment.

**Evaluation Preparation:** Check all equipment listed in the conditions statement for serviceability and make it available to the soldiers. Brief the soldiers on the task and state the mode of transportation to be used during this operation. Ensure all steps are followed safely without causing personnel injuries or damage to the equipment or the environment.

<b>Performance Measures</b>	<u><b>GO</b></u>	<u><b>NO GO</b></u>
1. Received in-transit notification from the MMC.	—	—
2. The stock control office prepared a DA Form 3151 from the information provided in the shipment documents.	—	—
3. The storage section received the partially completed DA Form 3151-R.	—	—
4. Received the transport conveyances and inspected the ammunition for damage in-transit.	—	—
5. Notified the surveillance section of any in-transit damages.	—	—
6. Downloaded the ammunition.	—	—
7. Inventoried the ammunition and entered the quantities on the DA Form 3151-R.	—	—
8. Stored the ammunition and entered the gains on the DA Form 3020-R.	—	—
9. Returned the completed DA Form 3151-R to the stock control office.	—	—
10. The stock control office compared the DA Form 3151 and the shipping document for matching information. Checked and corrected any discrepancies.	—	—
11. Input information into SAAS-MOD and reported mission accomplishment to the supervisor.	—	—

**Evaluation Guidance:** Score the soldier GO if all steps are passed. Score the soldier NO-GO if any steps are failed. If the soldier scores NO-GO, show the soldier what was done wrong and how to do it correctly.

**References**

**Required**  
DA FORM 3020-R  
DA FORM 3151-R  
DA PAM 710-2-1  
DA PAM 710-2-2

**Related**  
SB 742-1

## Subject Area 3: Identify Ammunition

**Identify Munitions****093-55B-1340**

**Conditions:** Perform this task at an ammunition supply point (ASP) or corps storage area (CSA) given the following: Small arms ammunition (.22 cal through 30-mm) and inner and outer packing materials; artillery ammunition (fixed, semi-fixed, and separate loading 37-mm through 280-mm cartridges); mortar ammunition: 60-mm, 81-mm, and 120-mm cartridges; grenades: fragmentation, smoke, incendiary, and C-Chlorobenzalmononitrile (CS); mines: AT and AP; rockets, to include motors, launchers, and warheads; pyrotechnics consisting of photoflash cartridges, aircraft and surface trip flares, aircraft and ground illumination signals, personnel distress signals, and smoke signals; simulators consisting of explosive booby traps, air and ground burst projectiles, and detonation simulators; demolition materials consisting of demolition block roll charges, TNT, Composition C, dynamite, cratering charges, shape charges, electric and non-electric blasting caps, firing devices, detonating cord, safety fuses, and modernized demolition initiators(MDI); small guided missiles in their containers; fuzes: point detonating, mechanical time, mechanical time superquick, and proximity.

**Standards:** Identified each item of ammunition by its physical features (markings, lot number, Department of Defense Identification Code (DODIC), Department of Defense Ammunition Code (DODAC), national stock number (NSN), federal stock class (FSC), color code, size, type, and packaging) and intended use. Performed this task without causing injury to self or other personnel or damage to the environment or equipment.

**Evaluation Preparation:** Setup: Select a mixed sample of different types of ammunition items listed in the conditions section for the soldier to identify. Brief Soldier: Tell the soldier to identify the type and intended use of each ammunition item by its physical characteristics.

<b>Performance Measures</b>	<b><u>GO</u></b>	<b><u>NO GO</u></b>
1. Identified small arms ammunition, inner and outer packing materials, and intended use by physical features.	—	—
2. Identified artillery ammunition and its intended use by physical features.	—	—
3. Identified mortar ammunition and its intended use by physical features.	—	—
4. Identified grenades and their intended use by physical features.	—	—
5. Identified mines and their intended use by physical features.	—	—
6. Identified rockets, rocket motors, rocket launchers, and rocket warheads and their intended use by physical features.	—	—
7. Identified pyrotechnics and their intended use by physical features.	—	—
8. Identified simulators and their intended use by physical features.	—	—
9. Identified demolition material and its intended use by physical features.	—	—
10. Identified small guided missiles and their intended use by physical features.	—	—
11. Identified fuzes and their intended use by physical features.	—	—

**Evaluation Guidance:** Score the soldier GO if all steps are passed (P). Score the soldier NO-GO if any step is failed (F). If the soldier fails any step, show what was done wrong and how to do it correctly.

**References**

**Required**

MIL STD 644A  
MIL STD 709C  
TM 43-0001-27  
TM 43-0001-28  
TM 43-0001-29  
TM 43-0001-30  
TM 43-0001-36  
TM 43-0001-37  
TM 43-0001-38  
TM 9-1300-200

**Related**

FM 21-16  
FM 5-250

Subject Area 4: Storage Procedures

**Store Munitions**

**093-55B-1346**

**Conditions:** Perform this task in an ammunition supply point (ASP) or corps storage area (CSA) upon receiving a notice of an incoming shipment given the following: Army Materiel Command (AMC) DWG 19-48-75-5; applicable AMC storage drawings; packaged ammunition; banding equipment and materials; safety clothing and equipment; seal press and lead wire seals; stencil equipment and materials; packaging containers and materials; DA Form 3151-R; forklifts; fire symbols and chemical hazard symbols; DA Form 3020-R; dunnage; shims and wedges; conveyors and conveyor stands; pallet jacks; palletized ammunition.

**Standards:** Selected the applicable storage drawing for the particular ammunition to be stored and type of storage structure in which the ammunition is to be placed into using AMC DWG 19-48-75-5. Correctly placed the ammunition into storage according to the applicable storage drawing. Stored ammunition outdoors correctly. DA Form 3020-R and DA Form 3151-R must be completed correctly. Performed this task error free and without causing injury to self or other personnel or damage to the environment, to the ammunition or to any equipment. All safety procedures and precautions must be followed.

**Evaluation Preparation:** Setup: Check that all materials, drawings, equipment, manuals, and forms required in the conditions section are serviceable and available to the soldier. Additional personnel must be available to assist in the performance of this task. Brief Soldier: Have the soldier check that all materials, drawings, equipment, manuals, and forms required are serviceable and available. Explain to the soldier that additional personnel will be available to assist during the performance of this task. Tell the soldier to place ammunition in storage using all required materials, drawings, equipment, manuals, and forms.

**Performance Measures**

**GO      NO GO**

NOTE: Storing in a magazine. See steps 1-28. NOTE: The motor vehicle will be inspected using DD Form 626 before it enters the ASP or CSA.

- |   |       |       |
|---|-------|-------|
| 1. Received a partially prepared DA Form 3151-R from stock control.   | _____ | _____ |
| 2. Selected the applicable storage drawing based on the type of ammunition to be stored and the type of storage facility the ammunition is to be stored in by using AMC DWG 19-48-75-5.   | _____ | _____ |
| 3. Escorted the vehicle to the designated location as specified on DA Form 3151-R.  | _____ | _____ |
| 4. Checked that two hand fire extinguishers rated 10 BC or higher were present at the location.   | _____ | _____ |
| 5. Prepared the vehicle to be off-loaded. <ul style="list-style-type: none"> <li>a. Set the parking brake.</li> <li>b. Turned off the ignition.</li> <li>c. Placed the transmission in the proper gear: gearshift in neutral for multifuel vehicles or gearshift in first gear for gas powered vehicles.</li> <li>d. Chocked at least one wheel on the vehicle and one wheel on the trailer.</li> </ul> | _____ | _____ |
| 6. Off-loaded ammunition from the vehicle using MHE and ground guides.  | _____ | _____ |
| 7. Verified the correct amount, NSN, DODIC, lot number, and serial number to be stored according to DA Form 3151-R.   | _____ | _____ |

NOTE: Record in the remarks column any additional information not contained on the DA Form 3151-R and inform stock control immediately of any discrepancy upon completion of the mission.

<b>Performance Measures</b>	<b><u>GO</u></b>	<b><u>NO GO</u></b>
8. Separated the ammunition by NSN, DODIC, lot number, and serial numbers, if applicable.	—	—
9. Placed a MINIMUM of 3 inches of base dunnage under the ammunition, if the ammunition is not palletized (unitized).	—	—
10. Stacked and arranged ammunition according to the appropriate storage drawing.	—	—
11. Placed stability dunnage every forth layer, when stacking ammunition that is not palletized.	—	—
12. Placed layer dunnage on every layer when stacking uncleaned ammunition boxes.	—	—
13. Stacked ammunition together by NSN, DODIC, lot number, nomenclature, and in serial number sequence, if serial numbered items.	—	—
14. Placed the smallest lots of ammunition toward the front of the magazine.	—	—
15. Placed ammunition lot numbers and markings facing outward so that they could be read.	—	—
16. Stored ammunition at least 18 inches from the roof of the magazine for air space.	—	—
17. Checked that there was only one light pallet and light box per lot number. NOTE: When more than one lot number of ammunition is stored, all items of the lot number will be stored together and the separation between lots should be clearly indicated.	—	—
18. Annotated the ammunition quantities received on the DA Form 3151-R.	—	—
19. Signed and dated as the receiving checker in the Signature of Receiving Checker block and entered the Julian date.	—	—
20. Had the vehicle driver sign and date as the issuing checker in the Signature of Issuing Checker block and enter the Julian date.	—	—
21. Prepared and posted the shipment transaction to the DA Form 3020-R for each lot number of ammunition.	—	—
22. Identified the highest hazard class and division being stored.	—	—
23. Checked that the appropriate fire symbol was displayed for the most dangerous hazard being stored.	—	—
24. Checked that the appropriate chemical hazard symbol was being displayed for the chemical hazard being stored.	—	—
25. Updated and posted the magazine planograph.	—	—
26. Secured the magazine.	—	—
27. Escorted the vehicle to the vehicle holding area.	—	—
28. Returned the completed DA Form 3151-R to stock control for processing. NOTE: Stock control transfers actual quantities received from DA Form 3151-R to the shipping documents and completes the transaction. NOTE: Storing outdoors. See steps 29-53. NOTE: Surveillance section personnel using DD Form 626 will inspect the motor vehicle before it enters the ASP or CSA.	—	—
29. Received a partially prepared DA Form 3151-R from stock control.	—	—

<b>Performance Measures</b>	<b><u>GO</u></b>	<b><u>NO GO</u></b>
30. Escorted the vehicle to the designated location as specified on DA Form 3151-R.	—	—
31. Checked that two hand fire extinguishers were present at the location.	—	—
32. Prepared the vehicle to be off-loaded. <ul style="list-style-type: none"> <li>a. Set the parking brake.</li> <li>b. Turned off the ignition.</li> <li>c. Placed the transmission in proper gear: gearshift in neutral for multifuel vehicles or gearshift in first gear for gas powered vehicles.</li> <li>d. Chocked at least one wheel on the vehicle and one wheel on the trailer.</li> </ul>	—	—
33. Off-loaded ammunition from the vehicle using MHE and a ground guide.	—	—
34. Verified the correct amount, NSN, DODIC, lot number, and serial number to be stored according to DA Form 3151-R.	—	—
NOTE: Record in the remarks column any additional information not contained on the DA Form 3151-R and inform stock control immediately of any discrepancy upon completion of the mission.		
35. Separated the ammunition by NSN, DODIC, lot number, and serial numbers, if applicable.	—	—
36. Placed a MINIMUM of 3 inches of dunnage on the bottom of each stack, if not palletized (unitized).	—	—
37. Stacked ammunition together by NSN, DODIC, lot number, nomenclature, and in serial number sequence, if there were serial numbered items.	—	—
38. Checked that the smallest lots of ammunition were stacked towards the front of the pad.	—	—
39. Placed ammunition lot numbers and markings facing outwards so that they could be read.	—	—
40. Placed shims, wedges, and dunnage between stacks to prevent tilting.	—	—
41. Stored ammunition with at least 18 inches between the stack and the overhead covering for air circulation.	—	—
42. Checked that there was only one light pallet and one light box per lot number.	—	—
NOTE: When more than one lot number of ammunition is stored, all items of the lot number will be stored together and the separation between lots should be clearly indicated.		
43. Annotated the ammunition quantities received on DA Form 3151-R.	—	—
44. Signed and dated as the receiving checker in the Signature of Receiving Checker block and entered the Julian date.	—	—
45. Had the vehicle driver sign and date as the issuing checker in the Signature of Issuing Checker block and entered the Julian date.	—	—
46. Prepared and posted the shipment transaction to DA Form 3020-R for each lot number of ammunition.	—	—
47. Identified the highest hazard class and division being stored.	—	—
48. Checked that the appropriate fire symbol was displayed for the most dangerous hazard being stored.	—	—

**Performance Measures**

	<u>GO</u>	<u>NO GO</u>
49. Checked that the appropriate chemical hazard symbol was being displayed for the chemical hazard being stored.	—	—
50. Built a temporary shelter, if necessary. NOTE: Some ammunition items require protection against moisture, dampness, and high temperature. These types of ammunition must be afforded the best protection possible to prevent damage to the items. Protective shelters, tarps and covers can be used to provide additional protection for sensitive ammunition items such pyrotechnics.	—	—
51. Checked that fire-fighting equipment was available at the storage site.	—	—
52. Escorted the vehicle to the vehicle holding area.	—	—
53. Returned the completed DA Form 3151-R to stock control for processing. NOTE: Stock control transfers actual quantities received from DA Form 3151-R to the shipping documents and completes the transaction.	—	—

**Evaluation Guidance:** Score the soldier GO if all steps are passed (P). Score the soldier NO-GO if any step is failed (F). If the soldier fails any step, show what was done wrong and how to do it correctly.

**References**

**Required**

AMC DWG 19-48-75-5  
DA FORM 3020-R  
DA FORM 3151-R  
DD FORM 626

**Related**

FM 4-30.13

**Fight Fires In a Munitions Storage Area**  
**093-55B-1348**

**Conditions:** Perform this task at an ammunition supply point (ASP), corps storage area (CSA), or ammunition transfer point (ATP) with a fire given the following: burning materials consisting of Ammunition Hazard Class and Division 1.1, 1.2, 1.3, 1.4; vegetation; and/or chemical ammunition; fire tool box (painted red); sprinkler or deluge system; protective clothing; protective masks; warning triangle; additional personnel; brooms; fire barrels (with water); shovels; fire truck; fire buckets; various types of alarms; fire beaters; face shield or goggles; fire symbols; fire extinguishers; fire hoses; sandbags; rakes; fire-fighting plan; chemical hazard symbols; unit fire-fighting SOP; Set 1, 2, 3, chemical protective clothing and equipment; rope.

**Standards:** Fought the fire using the correct procedure for the hazard class and division and chemical hazard. Fought the fire until the fire was extinguished, the fire became life threatening, or fire department personnel and equipment arrived.

**Performance Steps**

1. Soldiers need to read the fire-fighting plan for the ASP, CSA, or ATP. The fire-fighting plan gives specific evacuation areas, a list of alarm signals, how to notify nearby locations of impending danger, information meeting and advising fire department personnel, procedures for reporting the fire and personnel responsibilities.

2. Fighting fires involving conventional ammunition.

NOTE: All fires involving ammunition and explosives will be fought according to its DOD hazard class/division, the state of the fire, chemical filler involved, and the danger it may cause to personnel.

- a. Sound the alarm.
- b. Identify the type of fire hazard by fire symbols being displayed.
  - (1) Fire symbol 1 (Mass detonation).
    - (a) Shape - Octagon.
    - (b) Color - Black number with orange background.
    - (c) Size - 24 inches diameter (number 10 inches high, 2 inches wide).
    - (d) Hazard Class/Division - 1.1.
    - (e) Hazard - Mass detonating.
  - (2) Fire symbol 2 (Fragmentation).
    - (a) Shape - Cross or X.
    - (b) Color - Black number with orange background.
    - (c) Size - 24 inches diameter (number 10 inches high, 2 inches wide).
    - (d) Hazard Class/Division - 1.2.
    - (e) Hazard - Explosive with fragmentation.
  - (3) Fire symbol 3 (Mass fire).
    - (a) Shape - Inverted triangle.
    - (b) Color - Black number with orange background.
    - (c) Size - 24 inches diameter (number 10 inches high, 2 inches wide).
    - (d) Hazard Class/Division - 1.3.
    - (e) Hazard - Mass fire.
  - (4) Fire Symbol 4 (Moderate fire).
    - (a) Shape - Diamond.
    - (b) Color - Black number with orange background.
    - (c) Size - 24 inches diameter (number 10 inches high, 2 inches wide).
    - (d) Hazard Class/Division - 1.4.
    - (e) Hazard - Moderate fire.

NOTE: Appropriate fire symbols should be displayed on all buildings containing explosives in such a manner as to make them easily visible to approaching fire fighting forces from the maximum practicable distance. The fire symbol displayed on a building must reflect the most hazardous material stored in the building.

**Performance Steps**

- c. Evacuate nonessential personnel to the specified withdrawal distance for the following:

NOTE: Fire symbols identify a particular DOD hazard class/division. Fire Symbol 1 ----- Hazard Class/Division 1.1. Fire Symbol 2 ----- Hazard Class/Division 1.2. Fire Symbol 3 ----- Hazard Class/Division 1.3. Fire Symbol 4 ----- Hazard Class/Division 1.4.

- (1) Fire symbol 1.
  - (a) Not less than 1,250 feet for bulk explosives.
  - (b) Not less than 4,000 feet for fragmenting ammunition.
- (2) Fire symbol 2. Not less than fragmentation hazard distance for the ammunition; i.e. (12) 1.2 = 1,200 feet.
- (3) Fire symbol 3.
  - (a) Not less than 600 feet for less than 500,000 pounds of 1.3.
  - (b) Not less than 800 feet for over 500,000 pounds of 1.3.
- (4) Fire symbol 4 Not less than 300 feet.

- d. Position a messenger where the fire fighting force will arrive to inform them of the location, nature, and extent of the fire.

WARNING: Ammunition containing both explosives and chemical agents require special attention and precautions in fire fighting. Such ammunition may belong to different fire hazard classes depending on the kind and quantity of explosives contained. Fires involving ammunition containing both explosives AND chemical agents WILL be fought in accordance with their fire hazard class characteristics and the additional hazards resulting from the effects of the chemical agents and the associated measures required in the fighting of those fires. NOTE: The safety of fire fighting personnel in fighting a fire symbol 1 or 2 fire depends on accuracy of the information made available to the fire fighting force by the messenger.

- e. DO NOT attempt to fight the fire when the fire is inside a magazine or the fire involves hazard class and division 1.1 and 1.2 except to manually activate installed fire extinguishing equipment (deluge system or sprinkler systems) and other fire alarm equipment

WARNING: Ammunition in Hazard Class and Division 1.1 and 1.2 can be expected to detonate with an associated moderate to severe fragmentation hazard. Fire fighting forces shall not approach closer than 1,000 feet to the scene of a fire in which over 50,000 pounds of explosive may be involved or to a proportionately greater distance up to 2,000 feet where 100,000 pounds are involved. Mobile equipment shall be kept at a protected location.

- f. Fight a fire that involves Hazard Class and Division 1.3 ONLY if the fire is of a minor nature and DOES NOT involve the explosive itself and if there appears to be a chance to control it Confine fire fighting operations to preventing the spread of fire to other buildings DO NOT fight the fire when explosives are involved; just evacuate the area immediately and attempt to activate the deluge system.

WARNING: DO NOT attempt to fight a fire that involves hazard class and division 1.3 if fire has reached the ammunition or explosives. Fires in Class/Division 1.3 produce intense radiant heat over a wide area. Extreme caution should be taken by the fire-fighting organization.

- g. Fight a fire that involves Hazard Class and Division 1 4 with portable and mobile fire extinguishing equipment until the fire is under control, fire department personnel and equipment arrive, or the ammunition starts cooking off.
- h. Fight a grass or brush fire next to ammunition buildings, structures, or outdoor storage sites until the fire is out of control or has reached the ammunition; 1.1, 1.2, 1.3, or 1.4 has started cooking off; or fire department personnel and equipment arrive.

3. Fighting fires involving chemically filled munitions.

- a. Sound the alarm.
- b. Identify the type of fire by the fire symbol being displayed.
- c. Identify the type of fire by the chemical hazard symbols:

NOTE: All chemical hazard symbols are 24 inches in diameter with a circular shape.

- (1) Chemical hazard symbol 1, set 1.
  - (a) Color - 1/2 inch red rim, red figure, and blue background.
  - (b) Hazard - Highly toxic chemicals that may cause death or serious damage to body functions.

**Performance Steps**

- (2) Chemical hazard symbol 1, set 2.
    - (a) Color - 1/2 - inch yellow rim, yellow figure, and blue background.
    - (b) Hazard - Harassing agent; riot control agents, and smokes.
  - (3) Chemical hazard symbol 1, set 3.
    - (a) Color - 1/2 - inch white rim, white figure, and blue background.
    - (b) Hazard - White phosphorus and other spontaneously combustible material.
  - (4) Chemical hazard symbol 2.
    - (a) Color - 1/2 - inch white rim, white figure (mask), and blue background.
    - (b) Hazard - Incendiary and readily flammable chemical agents which present an intense radiant heat hazard. This symbol may be posted with any of the other hazard symbols as required. Protective masks to prevent inhalation of smoke from burning incendiary mixture should be used.
  - (5) Chemical hazard symbol 3.
    - (a) Color - 3 - inch red diagonal, black figure (bucket and fire), and white background.
    - (b) Hazard - Dangerous reaction will occur if water is used in an attempt to extinguish fire. This chemical hazard symbol may be posted together with any of the other symbols, if required.
- d. Identify the specific agent involved in the fire by identifying the chemical hazard symbol for the specific agent.
- (1) All symbols have 12-inch black letters on a 24-inch-diameter yellow circle. These chemical hazard symbols are posted along with other chemical hazard symbols.
  - (2) Chemical agent symbols:
    - (a) G- G-type nerve agents.
    - (b) VX - Nerve agent.
    - (c) BZ - Incapacitating agent BZ.
    - (d) H - H-type mustard agents.
    - (e) L - Lewisite.

NOTE: Chemical munitions include a variety of items. The effects depend primarily upon the chemical agent with which they are filled rather than explosion or fragmentation, even though they may contain explosive elements or pyrotechnic material to activate them. For purposes of storage and handling chemical agents have been divided into specific groups based on the action of the agent, the degree and type of hazard, and the type of protection required.

- e. Fight a fire in a Chemical Group A munitions magazine.

WARNING: Chemical Group A. Group A includes highly toxic liquid agents which in either liquid or vapor form may be absorbed through the respiratory tract, the skin, or the eyes (for example, nerve agent, mustard). Exposure to this group may cause serious damage to body functions or death, depending on the degree of exposure involved.

- (1) DO NOT fight the fire.
- (2) Evacuate all personnel within the danger zone to a safe area until the danger is passed.

CAUTION: Members of the fire department and all others fighting the fire who may be exposed must wear complete protective equipment. Fires in magazines containing these chemicals shall not be fought.

- f. Fight a fire in Chemical Group B munitions magazine.

WARNING: Chemical Group B. Group B includes chemical agents (gaseous, liquid, or solid), which are toxic or incapacitating by inhalation or ingestion. Wearing of a protective mask is required for the protection of personnel against inhalation of vapors, particles, or smoke from burning agents. These agents include choking agents, blood agents, riot control agents, and screening smokes. NOTE: The same precautions shall be observed during a fire in a Chemical Group B munitions magazine as for group A, EXCEPT that protective clothing and equipment shall consist of a protective mask and coveralls. Danger to personnel downwind from a fire involving Chemical Group B agent-filled munitions is not great EXCEPT when noncombustible toxic agents such as phosgene are involved. Any projectile or container that has been exposed to fire shall be considered dangerous and shall be inspected by qualified EOD personnel to determine its condition after the fire.

CAUTION: Members of the fire department and all others fighting the fire who may be exposed must wear protective mask and coveralls. Fires in magazines containing these chemicals shall not be fought.

- (1) DO NOT fight the fire.

**Performance Steps**

(2) Evacuate all personnel within the danger zone to a safe area until the danger is passed.

g. Fight a fire in Chemical Group C munitions magazine.

**WARNING:** Chemical Group C. This group includes materials that are spontaneously combustible (white phosphorus (WP) and plasticized white phosphorus (PWP)) and for which special fire-fighting techniques and materials are required.

(1) DO NOT fight a fire in igloo type or Corbetta type magazines.

(2) Evacuate the magazine when ammunition fitted WITH a fuze or burster and packed in containers is present and the fire cannot be controlled.

(3) Fight the fire to save adjacent magazines.

(4) Fight a fire involving Chemical Group C munitions which are stored WITHOUT fuzes or bursters by the following methods:

(a) Immerse extinguished phosphorus in water or continually spray with water to prevent the flames from breaking out anew.

**CAUTION:** A great amount of smoke can accumulate in the magazine creating an extra hazard of workers becoming lost in the magazine while attempting to fight the flames. Workers with portable extinguishers WILL NOT be permitted in the magazine after a fire gains headway unless they are equipped with lifelines.

(b) Use the lowest pressure streams consistent with possibility of approach.

**NOTE:** A high velocity stream of water tends to spread the fire.

**WARNING:** After a fire has been extinguished in a magazine, ALL unburned munitions should be considered dangerous. An IMMEDIATE report of the fire shall be made to higher headquarters. When munitions involved in a fire are inspected, containers shall NOT be opened less than 90 feet from any building containing explosives or munitions.

h. Fight a fire in Chemical Group D munitions magazine.

**WARNING:** Chemical Group D. This group consists of signaling smokes and incendiary material for which conventional fire fighting methods, EXCEPT use of water, may be used. Protection from inhalation of smoke is required.

**NOTE:** The primary efforts of the fire fighters shall be confined to preventing the spread of the fire in magazines.

(1) DO NOT fight fires in igloo type or Corbetta-type magazines.

**CAUTION:** A Chemical Group D munitions fire WILL NOT be fought with water except where large quantities are used in proportion to relatively small quantities of these type munitions.

(2) Do not use water to fight fires of thermite or mixtures containing fine metallic powders such as magnesium or aluminum.

**NOTE:** At the beginning of the start of a fire it may be smothered by spraying with dry chemicals from first aid extinguisher or covering with sand.

(3) Fight the beginning of a fire by spraying with dry chemicals from fire extinguishers or cover with sand.

i. Fight a fire involving chemical ammunition with a chemical hazard symbol 1, set 1 displayed wearing the following full protective clothing:

**WARNING:** 1) Fires in magazines WILL NOT be fought. 2) Members of the fire department and all other fire fighters who may be exposed must wear full protective clothing. **NOTE:** A fire blanket should also be available during fire fighting procedure.

(1) M9-series protective gas mask or self-contained breathing apparatus (with applicable hood or M40-series mask, self-contained toxic environment protective outfit (STEPO)).

(2) Impermeable suit, gloves, hood, and boots.

(3) Cotton undergarments.

(4) Explosive handlers coveralls.

(5) Protective footwear.

j. Fight a fire involving chemical ammunition with a chemical hazard symbol 1, set 2 displayed wearing the following full protective clothing:

**WARNING:** 1) Fires in magazines WILL NOT be fought. 2) Members of the fire department and all other fire fighters who may be exposed must wear full protective clothing. 3) DANGER to personnel downwind from a fire involving Chemical Group B agent-filled munitions is great when munitions are filled with noncombustible toxic agents such as phosgene

**Performance Steps**

- (1) M9-series protective gas mask or self-contained breathing apparatus.
- (2) Coveralls.
- (3) Protective gloves.

k. Fight a fire involving chemical ammunition with a chemical hazard symbol 1, set 3 displayed wearing the following protective clothing and equipment:

WARNING: 1) TEA is explosive in water. TEA should be extinguished using inert materials. 2) Fire fighters will be closely supervised when fighting a fire in WP munitions magazines because components becoming highly heated in a fire will explode with moderate violence throwing burning containers and WP for some distance. Fire fighters must be withdrawn to safe distances when this danger becomes apparent.

- (1) M9 series protective gas mask or self-contained breathing apparatus.
- (2) Flame-resistant coveralls and gloves.

**Evaluation Preparation:** Setup: Give the soldier the items listed in task conditions. Additional personnel must be available to help fight fires; evacuate nonessential personnel, and brief the fire fighters when they arrive. Check that all equipment necessary to perform the task is serviceable. Set small grass fires for the soldiers to extinguish using fire fighting equipment. Have fire department personnel and equipment on standby during actual fire-fighting procedures. Safety MUST ALWAYS be observed. Brief Soldier: Tell the soldier to take proper action according to the fire symbol and chemical hazard symbol displayed in the area and fight a fire in the ammunition storage area until the fire is extinguished, becomes life threatening, or fire fighters arrive. Tell the soldier that additional personnel will be available to help fight the fire, evacuate nonessential personnel, and to brief the fire fighters when they arrive.

WARNING: A fire plan and alarm signals must be available to all personnel within the ASP, CSA, or ATP. DO NOT enter or attempt to open a closed magazine when there is smoke or other evidence of a fire inside. If a fire becomes life threatening, leave the area immediately. The public withdrawal distance (PWD) is determined by the type and amount of explosive. Each hazard has its own public withdrawal distance.

**Performance Measures**

GO      NO GO

NOTE: All fires involving ammunition and explosives will be fought according to the DOD hazard class/division, the state of the fire, the chemical filler involved, and the danger it may cause to personnel.

1. Sounded the alarm.	_____	_____
NOTE: Fighting fires involving conventional ammunition.		
2. Identified the type of fire hazard by fire symbols being displayed.	_____	_____
3. Evacuated nonessential personnel to the specified withdrawal distance for the fire symbol displayed.	_____	_____
4. Briefed the messenger to give the fire department personnel the location, nature, and extent of the fire.	_____	_____
5. Positioned the messenger at the location where the fire department personnel were to arrive.	_____	_____
6. DID NOT attempt to fight a fire when the fire was inside a magazine or the fire involved Hazard Class and Division 1.1 or 1.2.	_____	_____
7. Attempted to manually activate installed fire extinguishing equipment (deluge system or sprinkler system) and other fire alarm equipment.	_____	_____
8. Fought fires that involved Hazard Class and Division 1.3 ONLY if the fire was of a minor nature and DID NOT involve the explosive itself and ONLY if there appeared to be a chance to control it.	_____	_____

<b>Performance Measures</b>	<b><u>GO</u></b>	<b><u>NO GO</u></b>
9. Confined fire-fighting operations to prevent the spread of a 1.3 fire to other buildings.	—	—
10. DID NOT fight a 1.3 fire when explosives were involved. Evacuated the area immediately and attempted to activate the deluge system.	—	—
11. Fought fires that involved Hazard Class and Division 1.4 with portable and mobile fire extinguishing equipment until fire was under control, fire department personnel and equipment arrived, or the ammunition started cooking off.	—	—
12. Fought grass or brush fires next to ammunition buildings, structures, or outdoor storage sites until the fire was out of control; reached the ammunition; 1.1, 1.2, 1.3, or 1.4 started cooking off; or fire department personnel and equipment arrived.	—	—
NOTE: Fighting fires involving chemically filled munitions.		
13. Identified the type of fire by the fire symbol being displayed.	—	—
14. Identified the type of fire by the chemical hazard symbols being displayed.	—	—
15. Identified the specific agent involved in the fire by the chemical hazard symbol being displayed.	—	—
16. Fought a fire in a Chemical Group A munitions magazine.	—	—
17. Fought a fire in a Chemical Group B munitions magazine.	—	—
18. Fought a fire in a Chemical Group C munitions magazine.	—	—
19. Fought a fire in a Chemical Group D munitions magazine.	—	—
20. Fought a fire involving chemical ammunition with a chemical hazard symbol 1, set 1 displayed wearing applicable protective clothing:	—	—
21. Fought a fire involving chemical ammunition with a chemical hazard symbol 1, set 2 displayed wearing the applicable protective clothing.	—	—
22. Fought a fire involving chemical ammunition with a chemical hazard symbol 1, set 3 displayed wearing the applicable protective clothing and equipment.	—	—

**Evaluation Guidance:** Score the soldier GO if all steps are passed (P). Score the soldier NO-GO if any step is failed (F). If the soldier fails any step, show what was done wrong and how to do it correctly.

**References**

**Required**

DA PAM 385-64  
 TM 5-315

**Related**

AR 385-64  
 AR 420-90  
 FM 4-30.13  
 TB 5-4200-200-10

## Perform Preservation and Packaging of Munitions

093-55B-1349

**Conditions:** Perform this task at an ammunition supply point (ASP) or corps storage area (CSA) given the following: additional personnel; paint; ammunition containers; carpenter's tool kit; nails; safety goggles; lumber; corrugated fasteners; banding equipment; stenciling equipment; ammunition wooden boxes; safety shoes; deteriorating ammunition; work gloves; applicable ammunition drawings; ammunition boxes with minor defects; replacement hardware; lead wire seals and sealer.

**Standards:** Inspected the ammunition and ammunition packaging for serviceability. Made minor repairs, preserved, packaged, cleaned, and stenciled the ammunition and ammunition packaging according to the applicable ammunition drawing. Performed this task error free and without causing injury to self or other personnel damage to the environment, or damage to the ammunition or to any equipment. All safety procedures and precautions were followed.

### Performance Steps

NOTE: Preservation and packaging is a minor maintenance operation such as cleaning, removing of rust or corrosion, repainting, re-stenciling, repairing containers, and other similar operations.

1. Inspect the ammunition boxes.
  - a. Check for damaged, rusted or corroded, and missing hardware (hasps, hinges, nails, and screws).
  - b. Check for missing or damaged wooden cleats and wooden handles.
  - c. Check for missing or damaged rope or strap handles.

NOTE: Splits less than 3 inches long and no closer than 1 inch to the edge of the board or to an adjoining split are acceptable.

- d. Check wood for splits or cracks.
- e. Check for correct and legible markings on the ammunition box.
- f. Check for damaged or missing lead wire seals and bands.
- g. Check for excessive mold and mildew.
- h. Check for water damage.

NOTE: There is not much that can be done about warped boxes. Warping which does not prevent sealing of the box or inspection of the ammunition is acceptable.

2. Repair ammunition boxes.

NOTE: When repairing damaged ammunition boxes, ALWAYS REMOVE THE CONTENTS FIRST. The only exception is when replacing lead wire seals, bands, or markings.

- a. Remove the contents before repairing the boxes.
- b. Bend the damaged hardware with pliers until its configuration is the same as the serviceable item.
- c. Reinstall serviceable hardware in existing holes, if possible. Move the hardware to a different location when the screws cannot be tightened in the existing holes and secure the hardware with secrets. Carve a notch to accommodate the hinge pin, if needed.
- d. Remove rust and corrosion by brushing with a wire brush.
- e. Cover the cleaned area with primer or paint and set aside to dry.
- f. Remove broken cleats or handles with a claw hammer or pry bar.

NOTE: Serviceable hardware can be removed from unserviceable boxes that are stored at the salvage yard.

- g. Replace cleats or handles with three to five small nails attached to each cleat and bend the nails over on the inside of box with hammer.
- h. Repair splits over 3 inches long that are not closer than 1 inch to the edge of the board or next to adjoining splits or over 1/8 inch wide by holding the boards tight to close the split. Place corrugated fasteners at 4 - to 6 - inch intervals and center them over the split. Hammer the corrugated fasteners into the wood to repair split.

**Performance Steps**

- i. Replace boxes that have splits closer than 1 inch to the edge of the board or to an adjoining split, a split or crack over 1/8 inch wide, or holes or loose knots which exceed 1 1/2 inches in diameter or cover 1/3 inch of a board's width.
- j. Repair of rope or strap handle.
  - (1) Remove the cleats holding the handle with a claw hammer or pry bar. Remove a serviceable handle from an unserviceable box being careful not to remove the nails or staples from the handle that attaches to the cleat.
  - (2) Position the serviceable handle, cleats and hammer them into the box with 3 to 5 nails for each cleat. Bend the nails over on the inside of the box.
- k. Replace ammunition boxes when the contents cannot be protected, or there is excessive mildew and mold that cannot be removed, or there is damage to the box that requires disassembly, or boxes are warped to the extent that it prevents the insertion or removal of ammunition or the box cannot be sealed.

NOTE: Obtain information on marking the boxes, containers, and ammunition from the surveillance section.

- l. Re-stencil the ammunition box when markings are not legible or the box was completely replaced. Stencil the correct information from the ammunition to be placed in the box according to the applicable ammunition packaging drawing. All information on the ammunition and the inner and outer packaging material MUST match.

3. Inspect the inner packaging material (fiber container) contained in the ammunition boxes.

NOTE: When a box of ammunition has been damaged by water the box must be opened and the contents checked. Check the intermediate packaging and then check the ammunition itself.

- a. Inspect the metal ends for rust, perforations, crushed ends, or ends that are not securely crimped to the cap.

NOTE: Minor dents and cracks are acceptable as long as they do not prevent the fiber container from protecting the item inside.

- b. Inspect the fiber container body and caps for mildew, rot or tears.

4. Inspect the ammunition.

NOTE: This is only a brief overview of certain ammunition items.

- a. Inspect semi-fixed ammunition.
  - (1) Remove the ammunition from the inner packing.
    - (a) Lift the fiber container at the heavy end.

NOTE: The heavy end is where the projectile is positioned. This end will be opened first.

- (b) Remove sealing tape. Twist and pull off the end cap from the heavy end of the fiber container (projectile end) and remove any filler material.
- (c) Pull out the projectile from the fiber container by slightly tilting the fiber container and carefully sliding the projectile out of the container.
- (d) Place the projectile on a grounded worktable in a cradle.
- (e) Remove the sealing tape and end cover from the opposite end of the fiber container. Remove the cartridge case with the primer and propelling charge increments.
- (f) Place the cartridge case in the end cap with the felt pad next to the cartridge base.
- (g) Remove the propellant increments and place in a collection container.

- (2) Remove dirt, mud, and other foreign material from the projectile body using rags dampened with alcohol/acetone or scrub brushes.

NOTE: Acetone can smear the markings; so keep this solvent away from the markings.

WARNING: When using acetone as a cleaner ensure that the room is well ventilated and that personnel are wearing the appropriate breathing apparatus. Acetone emits strong vapors that are toxic when inhaled and can cause headaches and dizziness.

- (3) Inspect for rust, corrosion, dents, flaked, chipped blistered or peeling paint, and scratches or damage to the projectile, cartridge case, primer, bourrelet and/or rotating band.
- (4) Unscrew the closing plug by hand or wrench, turning the closing plug counterclockwise and removing it from the fuze well. Inspect the threads of the closing plug for damage, rust, corrosion, and unserviceable threads. Check for missing or damaged gasket.

### Performance Steps

- (5) Remove the cardboard spacer from the fuze well and inspect it for wetness, tears, and damage.
- (6) Remove the supplemental charge by grasping the loop and gently lifting the supplemental charge out of the fuze well. Inspect it for corrosion and to see if it is missing the felt pad from the bottom of the charge.
- (7) Inspect the fuze well and threads for explosive filler exudation around the top of the fuze liner. Check the fuze well threads for rust or corrosion and any damage to the threads.
- (8) Inspect the primer to see if it is flush with the base of the cartridge case.
- (9) Check that all markings on the projectile and cartridge case are legible.
- (10) Inspect each propelling charge increment for deterioration, mildew, or stains to the cloth. Check that they are present and in the correct order. Inspect each individual propellant charge increment for deterioration, mildew, or stains. Check that the markings on each individual propellant bag are legible and correct.

NOTE: Deterioration will usually be accompanied by discoloration and loss of tensile strength in the cloth. Check suspect areas by poking them with the index finger. Badly deteriorated cloth bags should tear or disintegrate with little or no effort.

b. Inspect separate loading projectiles.

- (1) Place the projectile in the inspection cradle.

NOTE: Acetone can smear the markings; so keep this solvent away from the markings.

- (2) Remove dirt, mud, and other foreign material from the projectile body using rags dampened with alcohol/acetone or scrub brushes. Be careful not to damage the markings.

WARNING: When using acetone as a cleaner, ensure that the room is well ventilated and personnel are wearing the appropriate breathing apparatus. Acetone emits strong vapors that are toxic when inhaled and can cause headaches and dizziness.

- (3) Remove and inspect the projectile grommets.

NOTE: Separate loading projectiles will have one of three different types of grommets placed over the rotating band. The three types are Type A: wire tied metal; Type B: wound fiberglass; and Type C: high-impact plastic.

- (a) Type A: Remove the tie wires with pliers and discard. Spread grommet ends and slide the grommet and padding over the nose or base of the projectile.
  - (b) Type B: Spread the grommet ends pulling them outward on the aluminum tabs and slide the grommet over the nose or base of the projectile.
  - (c) Type C: Unsnap the locking wire from the holding tabs. Pull the lock wire out and back to release the lock. Spread the grommet ends by pulling them outward and sliding the grommet over the nose or base of the projectile.
  - (d) Inspect the projectile grommet for rust, corrosion, cracks, or breaks.
- (4) Inspect the projectile and rotating band for rust; corrosion; dents; flaked, chipped, blistered, or peeling paint; scratches, and damage.
  - (5) Remove the eyebolt lifting plug by inserting a straight bar through the eyebolt and turning counterclockwise until it is loose. Then remove the eyebolt lifting plug by hand. Inspect the eyebolt lifting plug for rust or corrosion and unserviceable threads.
  - (6) Remove the cardboard spacer from the fuze well and inspect it for wetness, tears, or damage.
  - (7) Remove the supplemental charge by grasping the loop and gently lifting the supplemental charge out of the fuze well. Inspect it for corrosion and to see if it is missing the felt pad from the bottom of the charge.
  - (8) Inspect the fuze well and threads for explosive filler exudation around the top of the fuze liner. Check the fuze well threads for rust or corrosion and any damage to the threads.
  - (9) Check that all markings on the projectile and cartridge case are legible.
  - (10) Inspect for rust; corrosion; dents; flaked, chipped, blistered, or peeling paint; and scratches or damage to the projectile, cartridge case, primer, bourrelet and/or rotating band.

c. Inspect missile containers.

- (1) Army Tactical Missile System (ATACMS). Inspect the humidity indicator for a white background color.

### Performance Steps

(2) Hellfire Missile System. Inspect the humidity indicator for a white background color.

NOTE: Notify surveillance section personnel immediately when ammunition is found to have deteriorated or is in a critical or major category condition (corrosion on cartridge case and/or primer, severe cartridge case dents, rust or corrosion at bourrelet, damaged rotating band, for example).

5. Repair minor deficiencies on the inner packaging material (fiber container).

- a. Remove small rust spots from the metal ends and then spot paint. Replace metal ends that have perforations or excessive rust and ends that are crushed or not securely crimped to the cap.

NOTE: Minor dents and cracks are acceptable as long as they do not prevent the fiber containers from protecting the item inside.

- b. Spot paint small cuts, tears, and gouges that are not closer than 1 inch to the closure and less than 1/2 square inch in area also spot paint layers of the fiber container body and caps that have not been penetrated. Replace mildewed, molded, rotted, wrinkled, peeling, wet or soft, or has blistered areas with a combined area of more than 1/2 square inch on the fiber container body and caps.

NOTE: All information on the inner and outer packaging material MUST match the information on the ammunition that is to be packaged.

- c. Re-stencil fiber container markings with white stencil ink. Apply markings so they are perpendicular to the axis of the container and read from the top, or cartridge end, to the bottom and according to the applicable ammunition packaging drawing.

NOTE: Obtain information on marking the boxes, containers, and ammunition from the surveillance section.

6. Repair minor deficiencies on ammunition.

WARNING: All ammunition containing explosives must be grounded when performing any contact type operations such as de-rusting, paint removal or cleaning.

a. Repair minor deficiencies on semi-fixed ammunition.

(1) Grounds the ammunition prior to repair. General procedures for grounding ammunition are as follows:

- (a) Locate an approved grounded metal object such as a cold water pipe or metal underground telephone line conduit within 25 feet of the work area.
- (b) Clean a small section of the grounded object's surface with sandpaper in order to obtain a good contact.
- (c) If a suitable grounded metal object is not available, hammer a grounding rod into the earth within 25 feet of the work area.
- (d) Cut the required length of a number 10 wire to reach between the item and the grounded object. Then strip 1 inch of insulation from each end of the wire.
- (e) Attach an electrical slip to each end of the wire. Clamp one electrical slip to the grounded object's surface or attach one of the board ends of wire to the grounding rod clamp.
- (f) Carefully attach the other electrical clip to the rotating band on most artillery items. On unfuzed items where it is impossible or difficult to attach the electrical clip to the rotating band, sand the paint off the ring of a spare lifting plug. Remove the original plug and temporarily install the sanded lifting plug. Attach the electrical clip to the sanded lifting plug ring.

WARNING: 1) DO NOT remove the lifting or closing plug and attach electrical clip to the nose of an exposed fuze-well of an item. 2) When using acetone as a cleaner ensure that the room is well ventilated and that personnel are wearing the appropriate breathing apparatus. Acetone emits strong vapors that are toxic when inhaled and can cause headaches and dizziness. NOTE: Acetone can smear the markings, so attempt to keep the solvent away from the markings if possible.

(2) Remove dirt, mud, and other foreign material from the projectile body with rags dampened with alcohol/acetone or with scrub brushes, being careful not to damage the markings.

**Performance Steps**

- (3) Replace missing or damaged supplementary charge felt pad. Remove minor corrosion from the supplementary charge with fine sandpaper. Replace the supplementary charge if it has extensive corrosion that cannot be removed.
  - (4) Remove explosive filler exudation by swabbing the area around the top of the fuze-well liner several times using fresh pieces of rag dampened with acetone that have been wrapped around a stick. (Rag should be tied around the stick to make a swab.)
  - (5) Clean fuze-well threads with a small stainless steel brush or rags dampened with acetone. Set the projectile aside and allow the fuze well to dry.
  - (6) Set projectiles with damaged fuze well threads aside for further inspection by surveillance personnel.
  - (7) Reinsert the supplementary charge and cardboard spacer into the dry fuze well, checking that the spacer is on top.
  - (8) Lubricate the fuze well threads with silicone grease.
  - (9) Replace unserviceable closing plug with a serviceable eyebolt lifting plug. Lubricate the closing plug threads with silicone grease. Place the gasket in place, carefully thread the closing plug into the fuze well, and screw it in a clockwise direction until it is finger tight.
  - (10) Remove flaked, chipped, blistered, or peeling paint and light corrosion (rust) from the projectile body using sandpaper, rags, corrosion removing compound, or hand non-sparking wire brush.
  - (11) Removes minor corrosion or rust from the rotating band with fine sandpaper or steel wool. Set aside the projectile for disposal if the rotating band has extensive corrosion or rust that cannot be removed, when it has dents or cuts that prevent obduration or when it has cuts through the band.
  - (12) Re-stencil the ammunition according to the applicable ammunition drawing, as needed.
  - (13) Remove minor scratches, rust, and corrosion from the cartridge case with steel wool or fine sandpaper. Set a cartridge case that has severe corrosion, rust, or scratches aside for disposition. Touch up all cleaned areas on the cartridge with a brush dipped in ammunition varnish. Allow the cartridge case to dry.
  - (14) Clean rust from primers with rags dipped in alcohol. Touch up all cleaned areas on the primer with a brush dipped in ammunition varnish. Allow the primer to dry.
  - (15) Re-stencil the cartridge case, as needed according to the applicable ammunition drawing.
  - (16) Set aside torn, mildewed, and stained propellant increment bags for disposal and replacement. Replace and set aside the propellant increment bags that have illegible markings. Place propellant charge increments back in the cartridge case without cutting the strings. Shape the bags to fit around the primer flash tube and check that the foil side of increment #5 faces toward the flash tube.
  - (17) Place the filler cap in the mount of the cartridge case.
- b. Repair minor deficiencies on a separate loading projectile.
- (1) Ground the ammunition prior to repair.

NOTE: Acetone can smear the markings, so attempt to keep the solvent away from the markings if possible.

- (2) Remove dirt, mud, and other foreign material from the projectile body using rags dampened with alcohol/acetone or scrub brushes, being careful not to damage the marking

WARNING: When using acetone as a cleaner, ensure that the room is well ventilated and that personnel are wearing the appropriate breathing apparatus. Acetone emits strong vapors that are toxic when inhaled and can cause headaches and dizziness.

- (3) Replace missing or damaged supplementary charge felt pad. Remove minor corrosion from the supplementary charge with fine sandpaper. Replace the supplementary charge if it has extensive corrosion that cannot be removed.
- (4) Remove explosive filler exudation by swabbing the area around the top of the fuze-well liner several times using fresh pieces of rag dampened with acetone that have been wrapped around a stick. (Rag should be tied around the stick to make a swab.)
- (5) Clean fuze-well threads with a small stainless steel brush or rags dampened with acetone. Set the projectile aside and allow the fuze well to dry.

**Performance Steps**

- (6) Set projectiles with damaged fuze well threads aside for further inspection by surveillance personnel.
- (7) Reinsert the supplementary charge and cardboard spacer into the dry fuze well, ensuring that the spacer is on top.
- (8) Lubricate the fuze well threads with silicone grease.
- (9) Replace unserviceable eyebolt lifting plug with a serviceable eyebolt lifting plug. Lubricate the eyebolt lifting plug threads with silicone grease. Put the gasket in place. Carefully thread the eyebolt lifting plug into the fuze well and screw it in a clockwise direction until it is finger tight.
- (10) Remove flaked, chipped, blistered, or peeling paint and light corrosion (rust) from the projectile body using sandpaper, rags, corrosion removing compound, or hand non-sparking wire brush. Remove minor corrosion or rust from the rotating band with fine sandpaper or steel wool. Set aside the projectile for disposal if the rotating band has extensive corrosion or rust that cannot be removed, or when it has dents or cuts that prevent obduration, or when it has cuts through the band.
- (11) Re-stencil the ammunition according to the applicable ammunition drawing, as needed.
- (12) Replace damaged grommets with serviceable grommets.
- c. Repair minor deficiencies on missile containers.
  - (1) Replace unserviceable humidity indicator and desiccant in the ATACMS and Hellfire missile systems.
  - (2) Inspect the humidity indicator of the ATACMS and Hellfire missile systems 48 hours after replacement of humidity indicator and desiccant.
  - (3) Reinspect the humidity indicator of the ATACMS and Hellfire missile systems at 72 hours after replacement of humidity indicator and desiccant.
  - (4) Replace humidity indicator and desiccant when they are not white in color after the inspection and reinspection. Reinspect at 24- and 72-hour intervals.
  - (5) Set the missile container aside for depot maintenance if upon replacement and reinspection the humidity indicator still is not white in color.
- d. Repack the ammunition in the inner packaging material using filler pads.
- e. Place the inner packs (fiber containers) in the outer pack (wooden boxes) using filler material as needed.
- f. Close and secure the outer pack.
- g. Seal the outer pack using a lead wire seal.
- h. Band the outer pack, as required, using at a minimum 5/8-inch banding.
- i. Palletize the ammunition according to the applicable palletization drawing, if necessary.

**Evaluation Preparation:** Setup: Give the soldier all materials and equipment required for this task. Additional personnel must be available for repacking of ammunition. Check that all equipment necessary to perform this task is serviceable (except for selected amounts of ammunition and ammunition packaging). Brief Soldier: Tell the soldier to perform preservation and packing operation using all the required equipment and materials. Review the equipment and materials to check that everything needed for this task is available and serviceable. Tell the soldier that additional personnel will be provided to assist during this task. Caution the assistant not to coach the soldier during this task. **WARNING:** Face shields or goggles, safety shoes or safety toe protectors, and work gloves **MUST BE WORN.**

**Performance Measures**

	<u>GO</u>	<u>NO GO</u>
1. Wore safety clothing and equipment.	—	—
2. Inspected the ammunition box.	—	—
3. Removed the contents before repairing the box, if required.	—	—
4. Repaired minor deficiencies of the ammunition box.	—	—

<b>Performance Measures</b>	<b><u>GO</u></b>	<b><u>NO GO</u></b>
5. Re-stenciled the ammunition box with the correct markings according to the applicable ammunition packaging drawing, if required.	—	—
6. Replaced the ammunition box, if required.	—	—
7. Inspected the inner packaging.	—	—
8. Repaired minor deficiencies to the inner packaging.	—	—
9. Re-stenciled the inner packaging with the correct markings according to the applicable ammunition packaging drawing, if required.	—	—
10. Replaced the inner packaging, if required.	—	—
11. Inspected the ammunition.	—	—
12. Repaired minor deficiencies to the ammunition.	—	—
13. Re-stenciled the ammunition with the correct markings according to the applicable ammunition drawing, if required.	—	—
14. Repacked the ammunition in the inner packaging using filler pads.	—	—
15. Placed the inner packs in the outer packaging (wooden boxes)	—	—
16. Sealed the outer packaging with lead wire seals.	—	—
17. Banded the outer packaging.	—	—
18. Palletized the ammunition according to the applicable palletization drawing, if required.	—	—
19. Inspected the humidity indicator of guided missiles (GM) containers.	—	—
20. Replaced unserviceable humidity indicators and desiccant bags in GM containers as required.	—	—
21. Reinspected humidity indicators of GM containers as required.	—	—

**Evaluation Guidance:** Score the soldier GO if all steps are passed (P). Score the soldier NO-GO if any step is failed (F). If the soldier fails any step, show what was done wrong and how to do it correctly.

**References**

**Required**  
TM 9-1300-250

**Related**  
FM 4-30.13  
SB 742-1

Subject Area 5: Issue Procedures

**Issue Munitions**  
**093-55B-1347**

**Conditions:** Perform this task at an ammunition supply point (ASP), corps storage area (CSA), or ammunition transfer point (ATP) given the following; various types of ammunition; fire symbols; DA Pam 385-64; DA Pam 710-2-1; DA Form 3020-R; DA Form 3151-R (partially prepared); DA Form 581; DD Form 626; storage pad; unit vehicle; conveyor with conveyor stands; lead wire seals; various sizes of dunnage; seal press; banding kits; packing material; ammunition boxes; stenciling machine; metal containers; gloves; materiel handling equipment (MHE); face shields; additional personnel for assistance; flashlight; goggles; steel toe shoes; fire extinguisher.

**Standards:** Issued to a using unit the correct type and amount of ammunition requested from the designated storage location indicated on DA Form 3151-R. Completed and checked all documentation for accuracy. Performed this task without causing injury to self or other personnel, damage to the environment, equipment, or ammunition.

**Evaluation Preparation:** Setup: Check that all equipment, materials, manuals, and forms required in the conditions section are available to the soldier and in a serviceable condition. Additional personnel are required to assist in loading ammunition. A unit representative is required to sign ammunition documents. Brief Soldier: Tell the soldier to issue ammunition listed on DA Form 3151-R. Go over the equipment, materials, forms, and manuals to check that everything needed for the task is present. Check that the soldier knows that additional personnel are available for loading ammunition and that a unit representative will sign necessary documentation.

**Performance Measures**

NOTE: The motor vehicle will be inspected before entering the ASP, CSA, and ATP (using DD Form 626).

	<u>GO</u>	<u>NO GO</u>
1. Received partially completed DA Form 3151-R from stock control.	___	___
2. Escorted vehicle to the storage location indicated on DA Form 3151-R.	___	___
3. Positioned the vehicle for loading.	___	___
4. Checked that the brake was set on the vehicle.	___	___
5. Checked that the vehicle ignition was off.	___	___
6. Checked that the transmission was in the proper gear; gearshift in neutral for multifuel vehicle and gearshift in first gear for gas powered vehicles.	___	___
7. Checked that at least one wheel on the vehicle and one wheel on the trailer are chocked.	___	___
8. Checked that there were at least two 10 BC rated fire extinguishers at the location.	___	___
9. Issued ammunition listed on DA Form 3151-R by Department of Defense Identification Code (DODIC), lot number, national stock number (NSN), nomenclature, and quantity, and by serial number, if applicable.	___	___
10. Notified stock control if the lot number or quantity to be issued was not found at the location indicated on DA Form 3151-R.	___	___
11. Affixed explosive placards to the front, rear, and both sides of motor vehicle.	___	___

<b>Performance Measures</b>	<b><u>GO</u></b>	<b><u>NO GO</u></b>
12. Used MHE and a ground guide to load ammunition on the vehicle.	—	—
13. Secured the load with tie down straps to prevent shifting during movement.	—	—
14. Completed DA Form 3151-R for ammunition loaded on the unit vehicle.	—	—
15. Completed DA Form 3020-R for the ammunition that was issued, indicating the type and amount of ammunition issued.	—	—
16. Had the unit representative sign as the receiving checker in the Receiving Checker block and record the Julian date on the DA Form 3151-R.	—	—
17. Signed as the issuing checker in the Issuing Checker block and recorded the Julian date on DA Form 3151-R.	—	—
18. Escorted unit vehicle to the ammunition holding area.	—	—
19. Returned the completed DA Form 3151-R to stock control.	—	—

Note: Stock control will transfer the actual quantity of ammunition issued to DA Form 581 and will have the unit representative sign the DA Form 581 and complete the issue transaction.

**Evaluation Guidance:** Score the soldier GO if all steps are passed (P). Score the soldier NO-GO if any step is failed (F). If the soldier fails any step, show what was done wrong and how to do it correctly.

**References**

**Required**

DA FORM 3020-R  
 DA FORM 3151-R  
 DA FORM 581  
 DA PAM 385-64  
 DA PAM 710-2-1  
 DD FORM 626

**Related**

AR 385-64  
 CFR 49  
 DA PAM 710-2-2  
 FM 4-30.13

## Perform Munitions Sling-Out Operations

### 093-55B-1352

**Conditions:** Perform this task at an ammunition supply point (ASP) or corps storage area (CSA) given the following: supervisor and personnel needed; forklift; truck; helicopter; apex fittings; static electricity discharge; tactical radio; probe with grounding rod; cargo nets; individual protective equipment (ear plugs, helmet, gloves); DA Form 3151-R; adhesive tape; goggles; smoke grenades; ammunition to be used in the sling out operation; tool kit; survival knife; flashlight with wand for night operations; snap ring pliers; nylon donut (Huey only); fire extinguisher.

**Standards:** Safely conducted sling out operations for the correct ammunition listed on DA Form 3151-R. Prepared the ammunition sling out area correctly. Performed the task without injury to personnel or damage to equipment, helicopter, or the environment. The DA Form 3151-R was completed correctly.

### Performance Steps

1. Identify, select, load, and issue ammunition. Perform tasks 093-55B-1340 (Identify Munitions) and 093-55B-1347 (Issue Munitions). The loaded vehicle will be escorted to the sling out area.
2. Select a cargo net to be used according to the weight of the ammunition to be sling loaded.
  - a. 5,000-pound capacity cargo net.
  - b. 10,000-pound capacity cargo net.
  - c. 2,200-pound capacity A-22 cargo bag.
3. Inspect equipment to be used during sling out operation for serviceability.
  - a. Spread out the net flat upon the ground. Check that the lifting legs are pulled free from the body of the net.
  - b. Inspect cargo net.
    - (1) Check for oil, grease, tears, and frays. Remove any oil or grease prior to using the cargo net.
    - (2) Replace torn or frayed cargo nets.
  - c. Check each hook (one at a time) for burrs, cracks, and distortions.
    - (1) Use a metal file and smooth out the burrs found on any metal ware that could cause snags or cuts to the net.
    - (2) Replace the net when any metal hook is badly damaged or missing.
  - d. Inspect slings for broken stitches.
    - (1) Reject the sling when three consecutive stitches or five individual stitches are broken.
    - (2) Check that the sling has been inspected, certified, and stamped within 6 months.
  - e. Inspect lifting legs.
    - (1) Check the stitching for damage or unraveling.
    - (2) Check for cuts or rubs that are more than 15mm or one-half inch long in any direction.
    - (3) Replace the cargo net should any stitching be damaged or unraveling or when cuts or rubs are more than 15mm or one-half inch long in any direction.
  - f. Inspect the discharge wand. Replace the discharge wand when the wand or the first 10 feet of cable (closest to the wand handle) is punctured or cracked.
  - g. Inspect the metal apex. The apex is a metal ring used to form a link between the helicopter hook and the four hooks of the lifting legs.
    - (1) Run a finger over the entire apex searching for burrs or rough edges, distortions, or cracks in the metal.
    - (2) File any burrs found that could cause damage to the nylon mesh.
    - (3) Replace the apex when any crack or distortion is noticed.
  - h. Inspect the radio equipment.
    - (1) Electrical connections should be clean. Use an eraser to clean dirty connections.
    - (2) Perform a radio check to make sure the radio operates correctly.
4. Set up the sling out area with the following:

### Performance Steps

NOTE: All positions at the sling-out area will be set up based on the direction of the wind.

- a. Load position.
- b. Rigging area.
- c. Safe distances.
- d. Emergency landing area.
- e. Rendezvous point. Position a radio person at the rendezvous point in the event of emergency.
- f. Equipment storage area.
- g. Vehicle holding area.

5. Download ammunition for sling out.

- a. Prepare the vehicle for downloading.
  - (1) Set the brakes.
  - (2) Turn off the ignition.
  - (3) Place the transmission in the proper gear.
    - (a) Gearshift in neutral for multifuel vehicles.
    - (b) Gearshift in first gear for gas powered vehicles.
  - (4) Chock at least one wheel on the vehicle.
- b. Use MHE and ground guides and unload the ammunition.
- c. Remove fire symbols from the vehicle and escort it to vehicle parking area.

6. Rig the ammunition in the cargo net.

- a. Spread the net on the ground.
- b. Inspect the net for serviceability.
- c. Position the load correctly in the load zone of the net (marked by a yellow cord).

NOTE: If multiple or loose items are to be sling loaded, position the heaviest of the items in the center of the load zone.

- d. Attach hooks to the apex fitting.
  - (1) Position one person on the load.
  - (2) Hold the apex chest high while on top of the load.
  - (3) Attach the hooks to the apex fitting.

NOTE: Hook direction is not critical.

- e. Use breakaway tape to secure hooks together.
- f. Tape all legs together using breakaway tape every 3 feet until all slack is taken up.
- g. Tape excess netting together (tape net to net).

NOTE: DO NOT tape net to the ammunition.

- (1) Grasp border cord at each corner.
- (2) Fold net envelopes along side of the pallet.
- (3) Tape the excess net together.
- h. Coil the taped sling legs on top of the pallet.
- i. Attach the nylon donut to the apex fitting, if required.

NOTE: The nylon donut is only required for the UH-1 Huey.

7. Move the load and equipment required to perform sling out operations to the load position area using MHE and ground guides.

NOTE: Care should be taken not to damage the net with the forks.

8. Position grounding rod with the static discharge wand in the ground on the opposite side of the ammunition pallet away from the rendezvous point.

- a. Attach the ground rod to the static discharge wand.
- b. Select a position for the ground rod. The load should be placed between the rendezvous point and the ground rod.
- c. Drive the rod into the ground a MINIMUM of 6 to 8 inches in firm ground and 24 inches in sandy or loose soil, at a 45-degree angle away from the side of the load.
- d. Attach the clamp from the static discharge wand to the grounding rod.

## Performance Steps

9. Clean and pick up any foreign material or trash that could be blown around by the helicopter rotor wash from the sling out area.

10. Put on helmet, goggles, earplugs, and gloves.

11. Position the signal person facing the load with their back to the wind.

NOTE: The signal person should be positioned at least 30 to 50 feet from a Huey, 100 feet from a Blackhawk, and 150 feet from a Chinook.

12. Position the hook-up team beside or on top of the load.

13. Signal the helicopter to approach the sling out load using the tactical radio or smoke grenades.

CAUTION: Do not use smoke grenades in an unfamiliar area. NOTE: If smoke grenades are used they should be deployed so the smoke is well dissipated by the time the helicopter is positioned over the load.

14. Assume guidance of the helicopter when visual contact is made using hand and arm signals.

NOTE: The signal person may get further guidance from the hook up crew for the exact positioning of the helicopter over the load.

15. Position the helicopter over the load.

a. Move the helicopter forward and then have it hover.

b. Signal the helicopter to move downward and then have it hover.

c. Signal the helicopter to move left or right till it is positioned over the load and then have it hover.

d. Signal for the helicopter to maintain hover during the hook-up procedure.

NOTE: The signal person must give the hover signal continuously while the hook-up team is under the aircraft.

16. Hook up sling load to helicopter.

a. The assistant hook-up person discharges the static electricity from the cargo hook by touching the discharge wand to the cargo hook and continually maintaining contact with the hook until the load is completely and properly hooked up.

WARNING: Watch for sudden movements of the helicopter. Keep aware of how close you are to the skids and tail rotor.

b. The hook-up person attaches the apex fitting or nylon donut (Huey only) to the helicopter cargo hook.

NOTE: Force must be used when attaching the apex fitting to the cargo hook so that it locks in place.

c. Move left or right from under the load to the rendezvous point taking the static discharge wand.

CAUTION: In case of emergency, move for cover (in the opposite direction in which the aircraft is going) to the rendezvous point or safe location. Fall face down with your head away from the helicopter and cover your head for protection.

d. Upon completion of the hook up, the signal person signals the helicopter using the upward signal and visually checks the sling for entanglement.

NOTE: If there is a problem with the hook up, the hook-up personnel must go back and try to correct it. If the load is not correct (tangled sling, hook open, damaged slings, and for example), signal the pilot using the negative or thumbs down signal. Direct the helicopter downward until the hook-up personnel can correct the rigging.

e. When the sling and hook up are correct, the signal person will give the hook up is complete and affirmative signal for the hook up to the helicopter.

17. Signal the helicopter to leave the area with the ammunition load.

a. Signal person gives the signal to the helicopter to lift the load.

NOTE: Load must be 10 to 20 feet high before signaling to depart.

b. Signal in a circular motion with arm extended over the head in the direction in which the pilot should depart the pickup zone.

18. Sign and date DA Form 3151-R as Issuing Checker.

**Performance Steps**

NOTE: The using unit will sign for the ammunition at a later time. Helicopter personnel are only transporting the loads. The purpose of a sling out is for emergency issues and there is no time to obtain signatures.

- 19. Return the equipment and materials to the designated area.
- 20. Return the DA Form 3151-R to the operations office.
- 21. Notify the supervisor that the sling out operation is complete.

**Evaluation Preparation:** Setup: Check that all equipment, materials, and forms required are available to the soldier and in a serviceable condition. Provide additional personnel for a hook up team (one person to hook up and one person to use the static discharge wand), a signal person, and a supervisor. Other personnel should be available to operate equipment and assist in rigging ammunition. Brief Soldier: Tell the soldier to perform sling-out operations using all the required equipment, materials, and forms. Review the equipment, materials, and forms to ensure that everything needed for the task is available and in a serviceable condition. Caution soldiers on the importance of discharging static electricity from the cargo hook before hook-up to avoid the possibility of static electric shock.

<b>Performance Measures</b>	<u><b>GO</b></u>	<u><b>NO GO</b></u>
1. Selected a cargo net.	—	—
2. Inspected equipment for serviceability.	—	—
3. Set up the sling out area.	—	—
4. Downloaded ammunition for sling out.	—	—
5. Rigged the ammunition in the cargo net.	—	—
6. Placed the load at the load position area.	—	—
7. Positioned grounding rod with the static discharge wand.	—	—
8. Cleaned trash and foreign material from the sling out area.	—	—
9. Put on helmet, goggles, earplugs, and gloves.	—	—
10. Placed the signal person facing the load with his back to the wind.	—	—
11. Placed the hook up team beside or top of the load.	—	—
12. Signaled the helicopter to approach the sling out load using the tactical radio or smoke grenades.	—	—
13. Assumed guidance of the helicopter.	—	—
14. Positioned the helicopter over the load.	—	—
15. Used static discharge wand during entire hook-up procedure.	—	—
16. Hooked up sling load to helicopter.	—	—
17. Signed and dated DA Form 3151-R as Issuing Checker.	—	—
18. Returned the equipment and materials to the designated area.	—	—
19. Returned the DA Form 3151-R to the operations office.	—	—
20. Notified the supervisor upon completion of the operation.	—	—

NOTE: The purpose of a sling out is for emergency issues and there is no time to

**Performance Measures****GO**   **NO GO**

obtain signatures. Helicopter personnel are only transporting the ammunition. The using unit will sign for the ammunition at a later time.

**Evaluation Guidance:** Score the soldier GO if all steps are passed (P). Score the soldier NO-GO if any step is failed (F). If the soldier fails any step, show what was done wrong and how to do it correctly.

**References**

**Required**  
FM 4-30.13

**Related**  
FM 90-4

Subject Area 6: Manual Stock Record Procedures

**Inventory Munitions**

**093-55B-1354**

**Conditions:** Perform this task in an ammunition supply point (ASP), corps storage area (CSA), or ammunition transfer point (ATP) given the following: clipboard; pencils; explosive-proof flashlight; additional personnel; ammunition to be inventoried; DA Form 3020-R; partially prepared DA Form 2000-3.

**Standards:** All ammunition must be correctly counted and the information recorded on DA Form 2000-3. Correctly annotated the inventory on DA Form 3020-R. Signed and dated as the recorder or counter.

**Performance Steps**

NOTE: This task depends heavily on basic math skills. Train this task during unscheduled training time through impromptu questions about the quantity of ammunition in boxes or pallets seen during daily operations in a storage area. Soldiers having continual problems with inventory counts should be referred to the post education center for math testing.

1. Preparation for inventory.
  - a. Receive partially prepared DA Forms 2000-3 from stock control.
  - b. Arrange the count cards.
    - (1) Place cards in alphanumerical order by location.
    - (2) Arrange the count cards in alphanumerical order by Department of Defense Identification Code (DODIC) within each location.
    - (3) Arrange the cards in alphanumerical order by lot number within the DODIC, if required.
2. Go to the location indicated on the first inventory count card.
3. Locate the stack of ammunition listed on the inventory count card.
4. Verify that the national stock number (NSN), DODIC, nomenclature, and lot number on boxes correspond with the inventory count card.

NOTE: Notify the supervisor if information does not correspond.

5. Inventory the ammunition.

NOTE: The counter is responsible for counting the ammunition. The recorder is responsible for verifying that the counter is counting the correct ammunition, recording the quantities counted by the counter, annotating the total quantities and posting the inventory to DA Form 3020-R. Both the counter and recorder are responsible for signing in the appropriate place on the DA Form 2000-3.

- a. Inventory full-banded pallets of ammunition.
  - (1) Count all full-banded pallets.
  - (2) Record the total number of full pallets on DA Form 2000-3.
  - (3) Count the number of full boxes or projectiles on a pallet.
  - (4) Record the total number of full packages per pallet on DA Form 2000-3.
  - (5) Count the rounds in one full box.

NOTE: The unit of issue for projectiles is one each.

- (6) Record the total number of rounds per full box on DA Form 2000-3.

- b. Inventory a light pallet of ammunition, if applicable.

NOTE: There should only be one light pallet per lot number of ammunition.

- (1) Record the light pallet.
- (2) Count the number of full boxes or projectiles per light pallet.
- (3) Record the total number of full boxes or projectiles per pallet on DA Form 2000-3.
- (4) Count the number of rounds per full box.

NOTE: The unit of issue for projectiles is one each.

- (5) Record the total number of rounds per full box on DA Form 2000-3.

- c. Inventory a light box, if applicable.

**Performance Steps**

NOTE: Only one light box per lot is authorized.

- (1) Count the rounds in the light box.
  - (2) Record the total number of rounds per box on DA Form 2000-3.
  - d. Total the number of rounds inventoried for this stack and lot number by multiplying the number of pallets, times the number of boxes per pallet, times the rounds per box to get the total number of rounds per full pallet.
  - e. Total the number of rounds inventoried for a light pallet by multiplying the light pallet, times the boxes per pallet, times the rounds per box.
  - f. Total the number of rounds in the light box by multiplying the number of packages per box times the rounds per package.
  - g. Record the total rounds for the inventory of that lot by adding all quantities recorded.
6. The counter signs and dates as Counter on DA Form 2000-3.
  7. The recorder signs and dates as Recorder on DA Form 2000-3.
  8. The recorder records the inventory balance on the DA Form 3020-R.
  9. Returns the completed count cards to the inventory supervisor.

**Evaluation Preparation:** Setup: Check that all equipment and forms required in the conditions section are available to the soldier. Brief Soldier Tell the soldier to inventory all ammunition listed on DA Form 2000-3 and that the evaluator will designate who will be the recorder and the counter.

**Performance Measures**

	<u>GO</u>	<u>NO GO</u>
1. Received partially prepared DA Forms 2000-3.	—	—
2. Arranged the count cards.	—	—
3. Went to the location indicated on the first inventory count card.	—	—
4. Located the stack of ammunition listed on the inventory count card.	—	—
5. Verified that the NSN, DODIC, nomenclature, and lot number on boxes corresponding with the inventory count card.	—	—
NOTE: This is a two-person task. The soldier designated as The Counter will physically conduct the inventory. The soldier designated as The Recorder will gather the information from the counter and enter it on the DA Form 2000-3.		
6. Counted and recorded quantities for full banded pallets.	—	—
7. Counted and recorded quantities for a light pallet, if applicable.	—	—
8. Counted and recorded quantities for a light box, if applicable.	—	—
9. Calculated and recorded total number of rounds per full pallet.	—	—
10. Calculated and recorded total number of rounds per light pallet.	—	—
11. Calculated and recorded total number of rounds in the light box.	—	—
12. Calculated and recorded total rounds for lot number of ammunition.	—	—
13. The counter signed and dated as Counter on DA Form 2000-3.	—	—
14. The recorder signed and dated as Recorder on DA Form 2000-3.	—	—
15. The recorder annotated the inventory balance on the DA Form 3020-R.	—	—
16. Returned completed count cards to the inventory supervisor.	—	—

**Evaluation Guidance:** Score the soldier GO if all steps are passed (P). Score the soldier NO-GO if any step is failed (F). If the soldier fails any step, show what was done wrong and how to do it correctly.

**References**

**Required**

DA PAM 710-2-1

DA PAM 710-2-2

**Related**

AR 710-2

FM 4-30.13

**Develop Manual Back-Up SAAS/ASA Stock Records  
093-55B-1362**

**Conditions:** Perform this task at an ammunition storage activity (ASA) location operating a manual accountability system given the following: list of transactions; printout of automated accountability records; manual stock records; DA Pam 710-2-2; DA Form 4999; DA Form 1298; DA Form 5203; DA Form 2000-3; DA Form 5811-R; DA Form 5037-R; DA Form 581 (partially completed); DD Form 1348-1A; DD Form 1384; DA Form 3151-R; DA Form 4508 (completed).

**Standards:** Set up stock records and processed a receipt, shipment, issue, turn-in, condition code change, intra-depot transfer, and inventory. Posted all transactions and due-in and due-out records, maintaining accountability of all items.

**Evaluation Preparation:** Check to ensure all forms and equipment are available. Brief the soldiers on the instructions and references to complete these forms.

<b>Performance Measures</b>	<b><u>GO</u></b>	<b><u>NO GO</u></b>
NOTE: Processing an in-transit IN notification. See steps 1-3.		
1. Reviewed the notification received from Standard Army Ammunition System-Materiel Management Center (SAAS-MMC).	—	—
2. Posted the document number to the DA Form 4999.	—	—
3. Filed the notification in the suspense file.	—	—
NOTE: Establishing a manual stock record set. See steps 4-8.		
4. Prepared a DA Form 5203 Department of Defense Identification Code-Master (DODIC Master) for each DODIC.	—	—
5. Prepared a DA Form 5203 for each lot number on the lot locator report.	—	—
6. Prepared a lot locator record or serial number record for serial numbered items (guided missiles and large rockets (GMLR)).	—	—
7. Prepared a DA Form 4999 for each item on the due-in report.	—	—
8. Prepared a DA Form 1298 for each item on the due-out report.	—	—
NOTE: Processing receipt transaction. See steps 9-19.		
9. Reviewed the notification received from SAAS-MMC.	—	—
10. Assigned a locally produced document number to DD Form 1348-1A.	—	—
11. Compared the notification to DD Form 1348-1A.	—	—
12. Prepared a DA Form 3151-R for the storage section.	—	—
NOTE: Storage section personnel will escort the vehicle into the ASP and will annotate the ammunition receipt on DA Form 3151-R while off-loading and storing the ammunition.		
13. Compared the completed 3151-R returned from the storage section with the DD Form 1348-1AA.	—	—
14. Checked the DODIC, national stock number (NSN), lot number, condition code, and quantity.	—	—
NOTE: If a discrepancy exists between the DA Form 3151-R and DD Form 1348-1A, have the storage section verify the actual receipt.		
15. Wrote quantities actually received on DD Form 1348-1A.	—	—

<b>Performance Measures</b>	<b><u>GO</u></b>	<b><u>NO GO</u></b>
16. Posted quantities received to the lot locator record [serial number record if GMLR item] and the DODIC master record.	—	—
17. Prepared a transaction record for reporting to the MMC.	—	—
18. Closed out document register after transaction was completed.	—	—
19. Filed all supporting documents in the completed file.	—	—
NOTE: Processing a shipment transaction. See steps 20-35.		
20. Reviewed the lateral transfer directive (LTD)/notification received from SAAS-MMC.	—	—
21. Posted the LTD/notification to the DA Form 1298.	—	—
22. Filed the LTD/notification in the suspense file.	—	—
23. Assigned a locally produced document number to the shipment if not received from the MMC.	—	—
24. Selected stocks to be shipped.	—	—
25. Posted the selected stocks to DA Form 1298.	—	—
26. Prepared DA Form 3151-R.	—	—
27. Sent the DA Form 3151-R to the surveillance section.	—	—
NOTE: The surveillance section will verify the suitability of the stocks for shipment and return DA Form 3151-R to stock control.		
28. Gave a copy of DA Form 3151-R to storage section for planning shipment.	—	—
29. Prepared DD Form 1384.	—	—
NOTE: The storage section will load the shipment, and the completed DA Form 3151-R will be returned to stock control.		
30. Verified DA Form 3151-R against original shipment notification.	—	—
31. Prepared DD Form 1348-1A.	—	—
NOTE: Shipment will be released after all documentation is finalized.		
32. Posted quantities shipped to the stock records set.	—	—
33. Prepared a transaction record for reporting to the MMC.	—	—
34. Closed out the document register.	—	—
35. Filed all supporting documents in the completed file.	—	—
NOTE: Processing an issue transaction. See steps 36-48.		
36. Reviewed and edit DA Form 581 as necessary.	—	—
37. Selected stocks to be issued.	—	—
NOTE: The chief of the stock control section gives stock selection guidance according to issue priorities established at the ammunition storage activity (ASA).		
38. Posted the request to DA Form 1298.	—	—
39. Prepared DA Form 3151-R.	—	—

<b>Performance Measures</b>	<b><u>GO</u></b>	<b><u>NO GO</u></b>
40. Sent DA Form 3151-R to the surveillance section for lot clearance and certification.	—	—
41. Gave the approved DA Form 3151-R to the checker for use in loading supported unit vehicles.	—	—
42. Completed DA Form 581 using the information from DA Form 3151-R.	—	—
43. Reviewed the completed DA Form 581.	—	—
NOTE: The supported unit representative will sign for the ammunition on DA Form 581.		
44. Posted the issue to the stock records set.	—	—
45. Prepared a transaction record for reporting to the MMC.	—	—
46. Closed out the document register.	—	—
47. Posted a copy of the issue document in the suspense file awaiting turn-in.	—	—
48. Filed all supporting documents in the completed file.	—	—
NOTE: Processing a turn-in transaction. See steps 49-59.		
49. Reviewed and edited DA Form 581, as necessary.	—	—
50. Pulled the due-in suspense copy of the original issue.	—	—
51. Performed the following actions: a. Calculated the total amount of ammunition expended by DODIC and lot number. b. Converted brass residue to rounds. c. Converted other residue based on unit pack.	—	—
52. Prepared DA Form 3151-R.	—	—
NOTE: The surveillance/storage sections will complete the turn-in and record the actual quantities and items turned in on DA Form 3151-R.		
53. Compared the completed DA Form 3151-R to the issue and turn-in DA Form 581.	—	—
54. Identified and informed the supported unit of shortages, as necessary, for completion of DA Form 5811-R.	—	—
55. Obtained the signature of the person authorized to sign for the items.	—	—
56. Posted the turn-in to the stock records set.	—	—
57. Prepared a transaction record for reporting to the MMC.	—	—
58. Closed out the document register after completion.	—	—
59. Filed all supporting documents in the completed file.	—	—
NOTE: Processing a condition code change. See steps 60-64.		
60. Assigned a locally produced document number to the completed DA Form 4508.	—	—
61. Posted the condition code change to the stock records set.	—	—
62. Prepared a transaction record for reporting to the MMC.	—	—
63. Closed out the document register.	—	—
64. Filed DA Form 4508 in the completed file.	—	—

<b>Performance Measures</b>	<b><u>GO</u></b>	<b><u>NO GO</u></b>
NOTE: Processing an intra-depot transfer transaction. See steps 65-69.		
65. Prepared DA Form 3151-R with a locally produced document number.	—	—
66. Sent DA Form 3151-R to the storage section.	—	—
NOTE: After moving the stocks, the storage section returns the completed and signed DA Form 3151-R to stock control.		
67. Posted DA Form 3151-R to the stock records set.	—	—
68. Closed out the document register.	—	—
69. Filed DA Form 3151-R in the completed file.	—	—
NOTE: Processing an inventory. See steps 70-76.		
70. Prepared DA Form 2000-3 by entering the following:	—	—
a. DODIC.		
b. NSN.		
c. Lot number.		
d. Condition code.		
e. Location.		
71. Assigned a locally generated document number to the inventory.	—	—
72. Prepared the following copies of DA Form 5037-R.	—	—
a. Accountable officer's copy.		
b. Inventory supervisor's copy.		
NOTE: The inventory team will conduct the physical inventory and the completed DA Form 2000-3 will be returned to stock control.		
NOTE: The accountable officer will accept the count or require a recount on all DA Form 2000-3 cards before the posting process begins.		
73. Posted inventory results to the stock records set.	—	—
74. Prepared a transaction record for any inventory adjustments.	—	—
75. Closed out the document register.	—	—
76. Filed inventory documents.	—	—

**Evaluation Guidance:** Score the soldier GO if all steps are passed (P). Score the soldier NO-GO if any step is failed (F). If the soldier fails any step, show what was done wrong and how to do it correctly.

**References**

<b>Required</b>	<b>Related</b>
DA FORM 1298	
DA FORM 2000-3	
DA FORM 3151-R	
DA FORM 4508	
DA FORM 4999	
DA FORM 5037-R	
DA FORM 5203	
DA FORM 581	
DA FORM 5811-R	
DA PAM 710-2-1	
DA PAM 710-2-2	
DD FORM 1348-1AA	
DD FORM 1384	

## Subject Area 7: Automated Stock Record Procedures

**Prepare Survey and Inventory Functions****093-55B-1401**

**Conditions:** Perform this task at a standard army ammunition system (SAAS-ASP) location, given the following: Commercial off-the-shelf (COTS) computers; SAAS-ASP software; automated information technology-hand held terminal (AIT-HHT) and survey directives.

**Standards:** Accessed the executable commands and conducted surveys and inventories that reflected actual counts, maintaining asset accountability without errors.

<b>Performance Measures</b>	<b><u>GO</u></b>	<b><u>NO GO</u></b>
1. Performed manual location survey.	_____	_____
a. Generated a survey for a storage point.		
b. Generated a survey for a warehouse.		
c. Printed the location survey record location list for the survey team.		
d. Posted the survey results.		
e. Generated a location survey exception list.		
2. Performed automated location survey.	_____	_____
a. Entered required information into the AIT HHT to conduct the survey.		
b. Transferred information from the AIT HHT to SAAS-MOD.		
c. Reviewed the information and printed the survey results.		
d. Generated a location survey exception list and a location survey statistics list.		
3. Performed a manual inventory.	_____	_____
a. Processed inventory planning data.		
(1) Determined the inventory type.		
(a) Wall-to-wall		
(b) Controlled inventory item code (CIIC)		
(c) Cyclic		
(d) Special		
(e) Damaged warehouse		
(2) Input the planned inventory data.		
b. Prepared the following inventory documents:		
(1) Inventory count sheets		
(2) Control listing		
c. Entered the count data received from the inventory teams.		
d. Confirmed counts entered or produced additional inventory counts.		
4. Performed an automated inventory.	_____	_____
a. Processed the inventory planning data.		
(1) Determined the inventory type.		
(a) Wall-to-wall		
(b) CIIC		
(c) Cyclic		
(d) Special		
(e) Damaged warehouse		
(2) Input the planned inventory data.		
b. Prepared the inventory files by doing the following:		
(1) Selected AIT as the inventory method and assigned the information to the users.		
(2) Transferred inventory data to AIT HHT.		

**Performance Measures**

**GO   NO GO**

- (3) Printed the inventory control listing.
- c. Entered information received from the AIT HHT into SAAS-MOD.
- d. Confirmed or rejected the counts entered.
- e. Conducted additional inventory procedures as necessary.

**Evaluation Guidance:** Score the soldier GO if all steps are passed. Score the soldier NO-GO if any steps are failed. If the soldier scores NO-GO, show the soldier what was done wrong and how to do it correctly.

**References**

**Required**

AIMS-25-L6F-AJA-ZZZ-EM  
DA PAM 710-2-2

**Related**

AIMS-25-L6F-AJA-ZZZ-SA

**Maintain Automated DAO Munitions Records and Reports  
093-55B-1356**

**Conditions:** Perform this task at a division ammunition office (DAO) given the following: ammunition training allocation; DA Form 581; DD Form 1348-1A; Standard Army Ammunition System-Modernization (SAAS-MOD) DAO/ammunition transfer point (ATP); DA Pam 710-2-1; DA Pam 710-2-2.

**Standards:** Verified and maintained issue, turn-in, and receipt documents and posted to stock records without error.

**Evaluation Preparation:** Check to ensure that all systems are operational and ready for use. Complete forms with the information necessary to conduct this task. Brief the soldiers on their duties and responsibilities at this management level.

<b>Performance Measures</b>	<b><u>GO</u></b>	<b><u>NO GO</u></b>
NOTE: Maintaining training ammunition allocation status records. See steps 1-2.		
1. Set up SAAS-MOD DAO.	—	—
2. Posted training ammunition documents to SAAS-MOD DAO.	—	—
NOTE: Processing an issue transaction. See steps 3-4.		
3. Reviewed the issue documents.	—	—
4. Posted the issue documents to SAAS-MOD DAO.	—	—
NOTE: Processing a turn-in transaction. See steps 5-6.		
5. Verified the turn-in balance against the unit's issue.	—	—
6. Posted the turn-in documents to SAAS-MOD DAO.	—	—
NOTE: Processing a receipt transaction. See steps 7-10.		
7. Verified the quantity received.	—	—
8. Verified the lot number.	—	—
9. Verified the NSN.	—	—
10. Verified the condition code.	—	—
NOTE: Maintaining visibility of SAAS-MOD ATP stocks. See steps 11-13.		
11. Set up SAAS-MOD DAO/ATP records.	—	—
12. Maintained transaction records.	—	—
13. Prepared stock accountability reports from each ATP.	—	—

**Evaluation Guidance:** Score the soldier GO if all steps are passed (P). Score the soldier NO-GO if any step is failed (F). If the soldier fails any step, show what was done wrong and how to do it correctly.

**References**

<b>Required</b>	<b>Related</b>
DA FORM 581	
DA PAM 710-2-1	
DA PAM 710-2-2	
DD FORM 1348-1AA	

**Prepare Documents using SAAS-MOD**  
**093-55B-1400**

**Conditions:** Perform this task at a standard army ammunition system-ammunition supply point (SAAS-ASP) location given the following: Computers with the appropriate software; SAAS-ASP database; automated information technology (AIT) devices; requests for issue and turn-in of ammunition; a shipment of ammunition; an intra-depot transfer (IDT); an account code change; due-in notification; a receipt notification; a condition code change; a maintenance transfer; DA Pam 710-2-2.

**Standards:** Navigated through the system and selected the required menu options for SAAS-ASP transactions in the proper sequence. Processed all types of internal and external transactions and documents without error or loss of accountability.

<b>Performance Measures</b>	<b><u>GO</u></b>	<b><u>NO GO</u></b>
1. Processed a receipt transaction. <ul style="list-style-type: none"> <li>a. Reviewed inbound notification from the materiel management center (MMC).</li> <li>b. Established a due-in record.</li> <li>c. Compared inbound notification to the due-in file.</li> <li>d. Completed the pre-receipt process by doing the following:               <ul style="list-style-type: none"> <li>(1) Obtained a document number.</li> <li>(2) Entered serial numbers as required.</li> <li>(3) Selected a storage location.</li> <li>(4) Produced the DA Form 3151-R (Ammunition Stores Slip) with all due-in items or downloaded the information to an AIT device as applicable.</li> </ul> </li> </ul>	_____	_____
NOTE: The storage section will escort the vehicle into the ASP and complete the ammunition stores slip while off-loading and storing the ammunition.		
<ul style="list-style-type: none"> <li>e. Verified both the shipping document (DD Form 1348-1A) and the DA Form 3151-R or information collected into the AIT device for matching information.</li> <li>f. Wrote the actual quantity received on DD Form 1348-1A.</li> <li>g. Closed out the receipt.</li> <li>h. Filed all supporting documents.</li> </ul>		
2. Processed a shipment transaction. <ul style="list-style-type: none"> <li>a. Received redistribution transaction notice from the MMC.</li> <li>b. Established a due-out record if applicable.</li> <li>c. Selected stocks for shipment.</li> <li>d. Generated ammunition stores slip or transferred the shipment information to an AIT device.</li> <li>e. Prepared and completed a transportation control and movement document (TCMD) (DD Form 1384) after shipment was loaded.</li> <li>f. Printed the shipment documents and updated the records.</li> <li>g. Filed all supporting documents.</li> </ul>	_____	_____
3. Processed an issue transaction. <ul style="list-style-type: none"> <li>a. Edited for accuracy the issue documents provided by the using unit.</li> <li>b. Completed the pre-issue process.               <ul style="list-style-type: none"> <li>(1) Assigned a document number to the request.</li> <li>(2) Updated information as required.</li> <li>(3) Selected stocks for issue.</li> <li>(4) Produced a DA Form 3151-R or transferred the information to an AIT device.</li> </ul> </li> <li>c. Cleared ammunition request through the surveillance section.</li> <li>d. Provided a copy of the approved request or the AIT device to the ammunition checker to perform the issue transaction.</li> </ul>	_____	_____

**Performance Measures**

**GO**      **NO GO**

- e. Reviewed the completed DA Form 3151-R or the information uploaded from the AIT device and completed the DA Form 581.
- f. Ensured an authorized unit representative signed for the ammunition received.
- g. Posted and filed the document.

4. Processed a turn-in transaction. \_\_\_\_\_

- a. Edited for accuracy the turn-in documents provided by the using unit.
- b. Prepared a turn-in document for amnesty ammunition if necessary.
- c. Compared the turn-in document to the corresponding issue document.
- d. Completed the pre-turn-in process.
  - (1) Established a document number.
  - (2) Selected the storage location.
  - (3) Printed an ammunition stores slip or downloaded information to an AIT device.

NOTE: The surveillance/storage sections will complete the turn-in and record the actual items and quantities returned on the DA Form 3151-R.

- e. Compared the completed DA Form 3151-R or information gathered on the AIT device to the issue and turn-in documents.
- f. Listed shortages on the DA Form 581 if necessary.
- g. Required from the using unit any additional documentation as needed to reconcile the issue.
- h. Collected the additional supporting documentation.
- i. Obtained the signature of the authorized unit representative for the turn-in documents.
- j. Closed out the transaction and updated the records.
- k. Filed all supporting documents.

5. Processed a condition code change. \_\_\_\_\_

- a. Received the completed DA Form 4508 from the surveillance section.
- b. Input data from the DA Form 4508 and updated the records.
- c. Saved supporting documents in the completed file.

6. Processed an IDT transaction. \_\_\_\_\_

- a. Completed the pre-IDT process.
  - (1) Obtained a document number.
  - (2) Selected stocks for movement.
  - (3) Generated a DA Form 3151-R or downloaded the information to an AIT device.
- b. Sent IDT information to the storage section.

NOTE: After moving the stocks to the new location, the storage section returns the DA 3151-R or AIT device to the stock control office.

- c. Completed the post-IDT process.
  - (1) Posted the IDT document or uploaded information from the AIT device.
  - (2) Closed and saved the transaction.
- d. Filed all supporting documents.

7. Processed the account code change. \_\_\_\_\_

- a. Reviewed the account code change directive received from MMC.
- b. Input data and saved the information.
- c. Filed all supporting documents.

8. Processed a maintenance transfer operation. \_\_\_\_\_

- a. Received the completed DA Form 4508 from the surveillance section.
- b. Input data and saved the information.
- c. Filed all supporting documents.

**Evaluation Guidance:** Score the soldier GO if all steps are passed. Score the soldier NO-GO if any steps are failed. If the soldier scores NO-GO, show the soldier what was done wrong and how to do it correctly.

**References**

**Required**

AISM-25-L6F-AJA-ZZZ-EM  
DA FORM 3151-R  
DA FORM 4508  
DA FORM 581  
DA PAM 710-2-2  
DD FORM 1348-1AA  
DD FORM 1384

**Related**

AISM-25-L6F-AJA-ZZZ-SA  
DA FORM 5692-R  
DA FORM 5811-R

**Produce SAAS Reports  
093-55B-1402**

**Conditions:** Perform this task at a standard army ammunition system-ammunition supply point (SAAS-ASP), standard army ammunition system-division ammunition office (SAAS-DAO), or standard army ammunition system-materiel management center (SAAS-MMC) given the following: commercial off the shelf (COTS) computer systems; SAAS-ASP, SAAS-DAO, or SAAS-MMC software, depending on the SAAS level.

**Standards:** Accurately generated ASP, DAO, and MMC reports that reflected on-hand assets or pertinent information contained in the different levels of management.

<b>Performance Measures</b>	<b><u>GO</u></b>	<b><u>NO GO</u></b>
1. Prepared and generated ASP reports, as directed.	—	—
2. Prepared and generated DAO reports, as directed.	—	—
3. Prepared and generated MMC reports, as directed.	—	—

**Evaluation Guidance:** Score the soldier GO if all steps are passed. Score the soldier NO-GO if any steps are failed. If the soldier scores NO-GO, show the soldier what was done wrong and how to do it correctly.

**References**

**Required**

AISM-25-L6F-AJA-ZZZ-EM

**Related**

AISM-25-L6F-AJA-ZZZ-SA

**Access Data Browser**  
**093-55B-1403**

**Conditions:** Perform this transaction at a standard army ammunition system-modernized (SAAS-MOD) location given the following: Commercial off the shelf (COTS) computer systems; proper SAAS-MOD software; query directive.

**Standards:** Conducted a query as instructed and produced an Oracle Browser report.

<b>Performance Measures</b>	<b><u>GO</u></b>	<b><u>NO GO</u></b>
1. Connected to the SAAS-MOD database.	—	—
2. Started the Oracle Browser.	—	—
3. Selected the type of query to be performed.	—	—
4. Produced an Oracle Browser report.	—	—

**Evaluation Guidance:** Score the soldier GO if all steps are passed. Score the soldier NO-GO if any steps are failed. If the soldier scores NO-GO, show the soldier what was done wrong and how to do it correctly.

**References**

**Required**

AISM-25-L6F-AJA-ZZZ-EM

**Related**

AISM-25-L6F-AJA-ZZZ-SA

**Input Unit Resources**  
**093-55B-1406**

**Conditions:** Perform this process at a Standard Army Ammunition System-Modernization (SAAS-MOD) location given the following: commercial off-the-shelf (COTS) computer systems; appropriate SAAS-MOD software; and unit data.

**Standards:** Identified and established the resources needed to manage ammunition assets in a theater of operations.

<b>Performance Measures</b>	<b><u>GO</u></b>	<b><u>NO GO</u></b>
1. Entered resources required at the theater level.	—	—
a. Theater materiel management centers (TMMCs)		
b. Theater storage areas (TSAs)		
c. Storage sites with storage site hazard data		
2. Entered resources required at the corps level.	—	—
a. Corps materiel management centers (CMMCs)		
b. Corps storage areas and ammunition supply points		
c. Storage sites with storage site hazard data		
3. Entered resources required at the division level.	—	—
a. Division ammunition offices (DAOs)		
b. Ammunition transfer points (ATPs)		

**Evaluation Guidance:** Score the soldier GO if all steps are passed. Score the soldier NO-GO if any steps are failed. If the soldier scores NO-GO, show the soldier what was done wrong and how to do it correctly.

**References**

**Required**

AISM-25-L6F-AJA-ZZZ-EM

**Related**

AISM-25-L6F-AJA-ZZZ-SA

**Input Unit Profiles**

**093-55B-1407**

**Conditions:** Perform this task at a Standard Army Ammunition System-Modernization (SAAS-MOD) location given the following: Commercial off-the-shelf (COTS) computer systems; appropriate SAAS-MOD software; unit information.

**Standards:** Established a military organization, Department of Defense activity address code (DODAAC) and DODAAC address records for the division ammunition office (DAO), the corps materiel management center (CMMC), each unit assigned/attached to the division and the ASP units that support the division. Also maintained military storage areas for each level of ammunition management.

**Performance Measures**

	<u>GO</u>	<u>NO GO</u>
1. Added and maintained a military organization.	—	—
2. Added and maintained a DODAAC.	—	—
3. Added and maintained a DODAAC address.	—	—
4. Assigned and maintained military storage areas.	—	—

**Evaluation Guidance:** Score the soldier GO if all steps are passed. Score the soldier NO-GO if any steps are failed. If the soldier scores NO-GO, show the soldier what was done wrong and how to do it correctly.

**References**

**Required**

AISM-25-L6F-AJA-ZZZ-EM

**Related**

AISM-25-L6F-AJA-ZZZ-SA

**Input Surveillance and Maintenance Reports  
093-55B-1409**

**Conditions:** Perform this task at a Standard Army Ammunition System-Ammunition Supply Point (SAAS-ASP) location given the following: Commercial off-the-shelf (COTS) computer systems; SAAS-ASP software; surveillance information.

**Standards:** Viewed and updated ammunition lot number inspection records and maintained restrictions, suspensions, and ammunition use codes assigned to ammunition items.

<b>Performance Measures</b>	<b><u>GO</u></b>	<b><u>NO GO</u></b>
1. Received maintenance or inspection information from the surveillance section.	—	—
2. Accessed the system and executed the proper operational command.	—	—
3. Added and deleted the following information for an ammunition lot:	—	—
a. Restrictions.		
b. Suspensions.		
c. Ammunition use codes.		
4. Updated the system inspection records with information provided by the surveillance section.	—	—
5. Filed all supporting documents.	—	—

**Evaluation Guidance:** Score the soldier GO if all steps are passed. Score the soldier NO-GO if any steps are failed. If the soldier scores NO-GO, show the soldier what was done wrong and how to do it correctly.

**References**

**Required**

AISM-25-L6F-AJA-ZZZ-EM

**Related**

AISM-25-L6F-AJA-ZZZ-SA

**Access SAAS-MOD Systems**  
**093-55B-1410**

**Conditions:** Perform this task at a Standard Army Ammunition System-Modernization (SAAS-MOD) location given the following: Commercial off-the-shelf (COTS) computer systems; appropriate SAAS-MOD software; System Administrator.

**Standards:** Set up the SAAS-MOD computer components, accessed the system, and performed executable commands from the SAAS-MOD program. Also, performed preventive maintenance on the SAAS-MOD components.

<b>Performance Measures</b>	<u><b>GO</b></u>	<u><b>NO GO</b></u>
1. Obtained a user identification (user ID) and password from the system administrator.	—	—
2. Familiarized self with the system components.	—	—
NOTE: The system administrator is the only person authorized to install the SAAS-MOD software in both the server and workstations.		
3. Installed and Set up the system components in accordance with the manufacturer's manuals.	—	—
4. Conducted server power-up procedures.	—	—
5. Conducted workstation power-up procedures.	—	—
6. Accessed the system using personal user identification (ID) and password.	—	—
7. Conducted executable procedures from the SAAS menu.	—	—
8. Connected to the Oracle database when necessary.	—	—
9. Conducted server power-down procedures.	—	—
10. Conducted workstation power-down procedures.	—	—
11. Conducted preventive maintenance on the SAAS components.	—	—

**Evaluation Guidance:** Score the soldier GO if all steps are passed. Score the soldier NO-GO if any steps are failed. If the soldier scores NO-GO, show the soldier what was done wrong and how to do it correctly.

**References**

**Required**  
AISM-25-L6F-AJA-ZZZ-EM  
AISM-25-L6F-AJA-ZZZ-SA

**Related**

**Input Unit Basic Load (ABL) Data  
093-55B-1411**

**Conditions:** Perform this procedure at a Standard Army Ammunition System-Modernization (SAAS-MOD) location given the following: Commercial off-the-shelf (COTS) computer systems; appropriate SAAS-MOD software; unit ammunition basic load (ABL) information.

**Standards:** Established and maintained ABL for units supported without any errors or missing data.

<b>Performance Measures</b>	<b><u>GO</u></b>	<b><u>NO GO</u></b>
1. Accessed the system and executed the proper command for the operation.	—	—
2. Added the following information:	—	—
a. Weapon systems.		
b. Ammunition items not associated to a weapon system.		
3. Updated unit's ABL as needed.	—	—
4. Established requests (DA Form 581) for unit ABL.	—	—
5. Saved updated records to the database.	—	—

**Evaluation Guidance:** Score the soldier GO if all steps are passed. Score the soldier NO-GO if any steps are failed. If the soldier scores NO-GO, show the soldier what was done wrong and how to do it correctly.

**References**

**Required**

AISM-25-L6F-AJA-ZZZ-EM

**Related**

AISM-25-L6F-AJA-ZZZ-SA

**Input Training Ammunition Requirements and Usage (DAO)  
093-55B-1412**

**Conditions:** Perform this task at a Standard Army Ammunition System-Division Ammunition Office (SAAS-DAO) location given the following: Commercial off-the-shelf (COTS) computer systems; SAAS-DAO software; unit's training ammunition requirements.

**Standards:** Correctly entered the training ammunition requirements for supported units without errors or missing data.

<b>Performance Measures</b>	<b><u>GO</u></b>	<b><u>NO GO</u></b>
1. Accessed the system and executed the proper command for the operation.	—	—
2. Selected unit from the Military Organization Table.	—	—
3. Entered the authorized training ammunition quantities for supported units.	—	—
4. Calculated the division's total authorization.	—	—
5. Saved the updated information.	—	—

**Evaluation Guidance:** Score the soldier GO if all steps are passed. Score the soldier NO-GO if any steps are failed. If the soldier scores NO-GO, show the soldier what was done wrong and how to do it correctly.

**References**

**Required**

AISM-25-L6F-AJA-ZZZ-EM

**Related**

AISM-25-L6F-AJA-ZZZ-SA

**Input Task Force Organizations (DAO)**

**093-55B-1413**

**Conditions:** Perform this task at a Standard Army Ammunition System-Division Ammunition Office (SAAS-DAO) location given the following: Commercial off-the-shelf (COTS) computer systems; SAAS-DAO software; unit information.

**Standards:** Established task forces and entered the required supply rate (RSR) for the divisional and non-divisional units assigned to the task forces. Also, established and identify a supporting ammunition transfer point (ATP) for each of the task forces.

<b>Performance Measures</b>	<b><u>GO</u></b>	<b><u>NO GO</u></b>
1. Accessed the system and executed the proper command for this operation.	—	—
2. Identified and created a specific task force organization.	—	—
3. Selected units from the Military Organization Table to assign to the task force. Entered new units not listed in the table.	—	—
4. Assigned an ATP to the task force.	—	—
5. Added both divisional and non-divisional units to the task force.	—	—
6. Added and updated unit profile records for: <ul style="list-style-type: none"> <li>a. Personnel strength</li> <li>b. Weapon inventory</li> </ul>	—	—
7. Entered the requested quantities (that is the RSRs).	—	—
8. Saved the data and established the task force.	—	—

**Evaluation Guidance:** Score the soldier GO if all steps are passed. Score the soldier NO-GO if any steps are failed. If the soldier scores NO-GO, show the soldier what was done wrong and how to do it correctly.

**References**

**Required**

AISM-25-L6F-AJA-ZZZ-EM

**Related**

AISM-25-L6F-AJA-ZZZ-SA

**Input Summary and Recording Accounts (MMC)  
093-55B-1414**

**Conditions:** Perform this task at a Standard Army Ammunition System-Materiel Management Center (SAAS-MMC) location given the following: Commercial off-the-shelf (COTS) computer systems; SAAS-MMC software; unit information.

**Standards:** Established and maintained summary and recording accounts for units supported by this ammunition management level.

<b>Performance Measures</b>	<u><b>GO</b></u>	<u><b>NO GO</b></u>
1. Completed the summary account process.	_____	_____
a. Accessed the system and executed the proper command for this operation.		
b. Accessed the summary account codes list.		
c. Added a summary account code.		
d. Assigned a condition code to the record.		
e. Maintained and updated the summary account code list.		
f. Deleted a summary account code.		
2. Completed the recording account process.	_____	_____
a. Accessed the system and executed the proper command for this operation.		
b. Accessed the recording account list.		
c. Added a recording account code.		
d. Assigned a condition code.		
e. Maintained and updated the recording account code list.		
f. Deleted a recording account code.		
3. Updated the database with the changes.	_____	_____

**Evaluation Guidance:** Score the soldier GO if all steps are passed. Score the soldier NO-GO if any steps are failed. If the soldier scores NO-GO, show the soldier what was done wrong and how to do it correctly.

**References**

**Required**

AISM-25-L6F-AJA-ZZZ-EM

**Related**

AISM-25-L6F-AJA-ZZZ-SA

**Process Excesses and Shortage Data (MMC)**

**093-55B-1415**

**Conditions:** Perform this task at a Standard Army Ammunition System-Materiel Management Center (SAAS-MMC) location given the following: Commercial off-the-shelf (COTS) computer systems; SAAS-MMC software; manager's directive.

**Standards:** Conducted a process to review and identify excess and shortages in the management center's Department of Defense Identification Code (DODIC) account and the storage point DODIC account.

<b>Performance Measures</b>	<b><u>GO</u></b>	<b><u>NO GO</u></b>
1. Accessed the system and the executed the proper command for the operation.	—	—
2. Obtained the excess or shortage information by conducting the following processes:	—	—
a. Displayed excess or shortage summary level.		
b. Displayed excess or shortage recording level.		
3. Provided the manager with accurate discrepancy data.	—	—

**Evaluation Guidance:** Score the soldier GO if all steps are passed. Score the soldier NO-GO if any steps are failed. If the soldier scores NO-GO, show the soldier what was done wrong and how to do it correctly.

**References**

**Required**

AISM-25-L6F-AJA-ZZZ-EM

**Related**

AISM-25-L6F-AJA-ZZZ-SA

**Input Directive and Requisition Data (MMC)**

**093-55B-1416**

**Conditions:** Perform this task at a Standard Army Ammunition System-Materiel Management Center (SAAS-MMC) location given the following: Commercial off-the-shelf (COTS) computer systems; SAAS-MMC software; directives and requisitions data.

**Standards:** Conducted local shipment directives, excess report processes, and materiel release orders as instructed by the supervisor. Processed cancellation of any or all of these directives and also maintained requisition data for the theater of operation.

<b>Performance Measures</b>	<b><u>GO</u></b>	<b><u>NO GO</u></b>
1. Accessed the system and executed the proper operational command.	—	—
2. Processed a local shipment directive.	—	—
3. Conducted an excess report process.	—	—
4. Processed a materiel release order (MRO).	—	—
5. Cancelled a directive.	—	—
6. Maintained requisitions.	—	—

**Evaluation Guidance:** Score the soldier GO if all steps are passed. Score the soldier NO-GO if any steps are failed. If the soldier scores NO-GO, show the soldier what was done wrong and how to do it correctly.

**References**

**Required**

AISM-25-L6F-AJA-ZZZ-EM

**Related**

AISM-25-L6F-AJA-ZZZ-SA

**Perform Maintenance Transfers  
093-55B-1417**

**Conditions:** Perform this task at a Standard Army Ammunition System-Ammunition Supply Point (SAAS-ASP) location given the following: Commercial off-the-shelf (COTS) computer systems; SAAS-ASP software; completed DA Form 4508.

**Standards:** Updated ammunition information by changing the national stock number (NSN), lot number, serial number, condition code, or account code as directed by the surveillance office.

<b>Performance Measures</b>	<u><b>GO</b></u>	<u><b>NO GO</b></u>
1. Received an Ammunition Transfer Record (DA Form 4508) from the surveillance branch.	—	—
2. Performed ammunition lot item and/or serial material item record changes for any of the following categories:	—	—
a. NSN		
b. Lot number		
c. Serial number		
d. Condition code		
e. Account code		
3. Updated the database with the new information.	—	—

**Evaluation Guidance:** Score the soldier GO if all steps are passed. Score the soldier NO-GO if any steps are failed. If the soldier scores NO-GO, show the soldier what was done wrong and how to do it correctly.

**References**

**Required**

AISM-25-L6F-AJA-ZZZ-EM  
DA FORM 4508

**Related**

AISM-25-L6F-AJA-ZZZ-SA

**Upload/Download AIT Data to/from SAAS-MOD  
093-55B-1418**

**Conditions:** Perform this task at a Standard Army Ammunition System-Ammunition Supply Point (SAAS-ASP) location given the following: Commercial off-the-shelf (COTS) computer systems; SAAS-ASP software; AIT hardware; input information.

**Standards:** Transferred automated identification technology (AIT) electronic data to/from SAAS-MOD using the AIT batch procedures. Completed all tasks correctly and without lost of data.

<b>Performance Measures</b>	<u><b>GO</b></u>	<u><b>NO GO</b></u>
1. Accessed the system and executed the proper operational command.	_____	_____
2. Transferred electronic data to/from SAAS-MOD by performing these operations:	_____	_____
a. Desktop input		
b. Desktop output		
c. Get field issue		
d. Get pick result		
e. Get put-away result		
f. Get receipts		
g. Print packing labels		
h. Print shipping labels		
i. Print storage point/warehouse labels		
j. Send pick-out		
k. Send put-away out		
3. Saved all electronic data and any supporting documents in the completed file.	_____	_____

**Evaluation Guidance:** Score the soldier GO if all steps are passed. Score the soldier NO-GO if any steps are failed. If the soldier scores NO-GO, show the soldier what was done wrong and how to do it correctly.

**References**

**Required**

AISM-25-L6F-AJA-ZZZ-EM

**Related**

AISM-25-L6F-AJA-ZZZ-SA

**Establish SAAS-MOD Communications  
093-55B-1419**

**Conditions:** Perform this task under the supervision of a system administrator (SA), given the following: Commercial off-the-shelf (COTS) computer systems; Standard Army Ammunition System-Modernization (SAAS-MOD) software; electrical connection; SAAS user manuals; network communications link.

**Standards:** Established SAAS communications with other levels of ammunition management.

<b>Performance Measures</b>	<b><u>GO</u></b>	<b><u>NO GO</u></b>
1. Unpacked and set up the SAAS hardware in accordance with user manuals.	—	—
2. Conducted power-up procedures.	—	—
NOTE: The system administrator is the only person authorized to add or modify the SAAS software in both the server and the workstations. Users will only conduct procedures approved by the SA.		
3. Provided assistance to the SA in running the COMSETUP.exe operating instructions.	—	—

**Evaluation Guidance:** Score the soldier GO if all steps are passed. Score the soldier NO-GO if any steps are failed. If the soldier scores NO-GO, show the soldier what was done wrong and how to do it correctly.

**References**

**Required**

- AISM-25-L6F-AJA-ZZZ-EM
- AISM-25-L6F-AJA-ZZZ-SA

**Related**

**Perform SAAS-MOD System Backups  
093-55B-1420**

**Conditions:** Perform this task at a Standard Army Ammunition System-Modernization (SAAS-MOD) location under the supervision of the system administrator, given the following: Commercial off-the-shelf (COTS) computer systems; SAAS-MOD software; and backup tapes.

**Standards:** Conducted system backups and file restorations to be used as emergency sources of information in case of a data loss occurrence.

<b>Performance Measures</b>	<u><b>GO</b></u>	<u><b>NO GO</b></u>
1. Accessed the system.	_____	_____
NOTE: To perform this task, the operator must be a system administrator (SA), a member of the backup operator group, or have exclusive authorization from the SA to backup or restore files.		
2. Conducted a full system backup.	_____	_____
3. Backed up a dump file.	_____	_____
4. Restored the full system backup.	_____	_____
5. Restored the dump file.	_____	_____

**Evaluation Guidance:** Score the soldier GO if all steps are passed. Score the soldier NO-GO if any steps are failed. If the soldier scores NO-GO, show the soldier what was done wrong and how to do it correctly.

**References**

**Required**

AISM-25-L6F-AJA-ZZZ-EM  
AISM-25-L6F-AJA-ZZZ-SA

**Related**

## Subject Area 8: Ammunition Unit Operations

**Perform Destruction of Munitions****093-55B-1343**

**Conditions:** Perform this task in an approved demolition area at an ammunition supply point (ASP) or corps storage area (CSA) given the following: Ammunition to be destroyed; M2 cap crimpers; smokeless powder; diesel fuel or fuel oil; time fuse M700; electrical tape; priming adapter; shovel; detonating cord; rake; demolition charges; firing wire; non-electric blasting caps; forklift; electric blasting caps; personnel to assist; flash vented squib; timer (watch); M60 igniter; safety clothing and equipment; combustible material; M32 or M34 blasting machine; test set M51 or galvanometer; modernized demolition initiators (MDI) can be used in lieu of conventional demolition materiel.

**Standards:** Destroyed all specific ammunition completely by burning or detonation. Performed this task error free and without causing injury to self or other personnel or damage to the environment or to any equipment. All safety procedures and precautions were followed.

**Performance Steps**

**WARNING:** 1) When using live explosives, if the soldier makes any attempt to incorrectly perform any step, STOP THE OPERATION IMMEDIATELY and demonstrate the correct procedure. 2) Failure to follow safety procedures and the correct steps can cause serious injury to personnel, death, or damage to equipment or to the environment. STOP IMMEDIATELY if safety is violated or a step is done out of sequence or incorrectly. **NOTE:** Prepare site for destruction. See steps 1-3.

1. Remove all dry grass, leaves, and other combustible material within a 200-foot radius from the point of destruction.

2. Display a red flag, post guards, and place warning triangles around the destruction area.

**CAUTION:** Two-way radios must be controlled when used around electrical firing systems.

3. Establish telephone or two-way radio communications with the protective shelter, range control, fire department, and local medical facility.

**NOTE:** Destruction of unserviceable ammunition by burning. See steps 4-5.

4. Conduct a surface burn.

**WARNING:** 1) Disposal by open pit burning WILL NOT be undertaken when wind velocity exceeds 15 MPH. The burn site CANNOT be reused for 24 hours after a burn is conducted UNLESS the area has been thoroughly soaked with water and inspected by competent personnel. 2) Some types of explosives of tracer or igniter composition give off toxic fumes when burned. Proper respiratory protective equipment, such as nose masks, airline masks, and self-contained breathing apparatus, MUST be worn when such fumes are likely to be encountered 3) Demolition operations WILL NOT be conducted during an electrical storm, a dust storm, sandstorm, or snowstorm which is severe enough to produce atmospheric static or when such storms are approaching. IMMEDIATELY SUSPEND all operations. Cap wires and lead wires MUST be short-circuited (shunted) and all personnel evacuated from the demolition area to a safe location. **NOTE:** All steps must be performed in sequence.

a. Check the ground for smoothness.

b. Check that the area is free of loose material.

c. Check that the ground is without cracks or crevices and is packed sufficiently to prevent explosive materials from infiltrating the ground during the burning operation.

d. Stack or position ammunition to prevent an unwanted detonation.

(1) Position loose explosives in a burn pit that is MORE THAN 3 inches deep.

**WARNING:** RDX (Cyclonite) should always be burned wet to prevent detonation.

(2) Place wet explosives on thick beds of readily combustible material to guarantee a complete burn after ignition.

**NOTE:** Dry explosives may be burned without being placed on combustible material if burning will be complete and the ground will not become unduly contaminated.

### Performance Steps

- (3) Place dry explosives in a burn pit with or without a bed of combustible material.

WARNING: Should the ground become unduly contaminated it MUST be decontaminated as frequently as necessary for the safety of personnel and the operation. Qualified inspectors will examine the site after burning operations to determine that site meets safety requirements.

- (4) Prepare parallel beds of explosives for burning by separating the beds by NO LESS THAN 150 feet.

WARNING: Propelling charges MUST NOT be piled on one another.

- (5) Set propelling charges in a single layer of charges laid side-by-side.

- (6) Spread bulk explosives and pyrotechnic material in a thin layer over a bed of combustible material.

- e. Pour diesel or fuel oil over the entire pile.

WARNING: An ignition train will be used in trench or surface burning operations to allow personnel sufficient time to reach a safe distance before combustion of the munitions.

- f. Prepare a combustible ignition train NOT LESS THAN 8 meters (25 feet) long and upwind of the pile. The ignition train must be arranged so that both it and the explosive burn in the direction from which the wind is blowing.

WARNING: When using safety time blasting fuse to ignite a combustible train, the safety time blasting fuse will be uncoiled and laid out in a straight line. A heavy object (a stone for example) will be placed so that the fuse WILL NOT curl up and cause premature ignition.

- (1) A non-electric ignition train consists of a fuse igniter, safety time blasting fuse, and a small bag of smokeless powder.

- (2) An electrical ignition train consists of a blasting machine, a firing wire, a flash vented squib, and a small bag of smokeless powder.

- g. Clear all nonessential personnel from the area and check that they have reached the protective shelter.

- h. Ignite the combustible ignition train.

- i. Leave the area and take cover.

NOTE: Burning shall not be repeated on previously burned over plots within 24 hours unless the burned area has been thoroughly soaked with water and the plot inspected by competent personnel prior to a subsequent burning operation.

- j. Inspect the burn pit when burning is complete.

#### 5. Conduct a pit burn.

WARNING: 1) Disposal by open burning WILL NOT be undertaken when wind velocity exceeds 15 MPH. The burn site CANNOT be reused for 24 hours after a burn is conducted UNLESS the area has been thoroughly soaked with water and inspected by competent personnel. 2) Some types of explosives of tracer or igniter composition give off toxic fumes when burned. Proper respiratory protective equipment, such as nose masks, airline masks, and self-contained breathing apparatus, MUST be worn when such fumes are likely to be encountered. WARNING: Demolition operations WILL NOT be conducted during an electrical storm, a dust storm, sandstorm, or snowstorm which is severe enough to produce atmospheric static or when such storms are approaching. IMMEDIATELY SUSPEND all operations. Cap wires and lead wires MUST be short-circuited (shunted) and all personnel evacuated from the demolition area to a safe location NOTE: All steps must be performed in sequence.

- a. Dig a pit NO LESS THAN 4 feet deep with enough slope to prevent cave-in.

NOTE: The size of the pit or length and width of the trench will be determined by the quantity of material being disposed of and by safety distances established for the burning site.

- b. Place combustible material, such as scrap wood, in the bottom of a pit at least 1 foot in depth.

- c. Place munitions on top of the combustible material, checking that the combustible material extends beyond the layer of munitions. Layers of combustible material and munitions will be formed as necessary, allowing an air space of NOT LESS THAN 1 foot between the top layer of the munitions and the top of the pit.

- d. Pour diesel fuel or other combustible oil over the entire pile.

WARNING: An ignition train will be used in trench or surface burning operations to allow personnel sufficient time to reach a safe distance before combustion of the munitions.

**Performance Steps**

- e. Prepare a combustible ignition train NOT LESS THAN 8 meters (25 feet) long and upwind of the pile. The ignition train must be arranged so that both it and the explosive burn in the direction from which the wind is blowing.

**WARNING:** When using safety time blasting fuse to ignite a combustible train, the safety time blasting fuse will be uncoiled and laid out in a straight line. A heavy object, (a stone for example) will be placed so that the fuse WILL NOT curl up and cause premature ignition.

- (1) A non-electric ignition train consists of a fuse igniter, safety time blasting fuse, and a small bag of smokeless powder.
- (2) An electrical ignition train consists of a blasting machine, a firing wire, a flash vented squib, and a small bag of smokeless powder.
- f. Check that all nonessential personnel have left the area and reached protective shelter.
- g. Ignite the combustible ignition train.
- h. Leave the area and take cover.

**NOTE:** Burning shall not be repeated on previously burned over plots within 24 hours unless the burned area has been thoroughly soaked with water and the plot inspected by competent personnel prior to a subsequent burning operation.

- i. Inspect the burn pit when burning is complete.

**NOTE:** Destruction of serviceable ammunition by deactivation furnace. See step 6. **NOTE:** Small arms ammunition, primers, fuzes, boosters, detonators, flashings 75-mm through 120-mm projectiles after washout of the explosive charge, and certain "drained" chemical bombs and rockets (sectionalized) can be destroyed by deactivation furnace. Empty 20-mm cartridge cases may be fed into furnaces at a predetermined rate prescribed for each item via a steel conveyor belt which carries them high above the mouth of the furnace and drops them down a chute into the feed end of the rotating retort. **WARNING:** The ultimate safety limit for ammunition peculiar equipment 1236 in the field is 600 to 800 grains per item depending upon the furnace model.

- 6. Destroy specified ammunition and explosives items completely by using the deactivation furnace.

**NOTE:** Destruction of unserviceable ammunition by detonation. See steps 7-11. **NOTE:** To dispose of unserviceable ammunition by detonation, place demolition charges or other explosive materials on single or stacked quantities of munitions, prime the charges, and detonate the munitions from a safe distance. Specific instructions on the use of demolition materials and firing systems are contained in the individual demilitarization depot maintenance work requests (DMWRs) and TM 9-1300-277.

- 7. To prevent unwanted detonation, stack or position unserviceable ammunition.

- 8. Check that the pit is at least 4 feet in depth.

- 9. Place fragmentation grenades, high explosive (HE) projectiles, mines, photoflash munitions, mortar shells, bombs, HE rocket warheads that have been separated from the motors, and other components for destruction on their sides or in a position that exposes the largest area to the influence of the initiating explosives.

- 10. Prepare a non-electric firing system.

**Note:** A non-electric firing system uses a non-electric blasting cap as the initiator. The initiation set consists of a fuse igniter (produces flame that lights the time fuse), the time blasting fuse (transmits the flame that fires the blasting cap), and a non-electric blasting cap (provides a shock adequate to detonate the explosive). When combined with detonating cord, a single initiation set can fire multiple charges.

- a. Check the safety or M700 time fuse by doing the following:

**NOTE:** Safety fuse is wrapped with several layers of orange fiber. It has a black core center. Time fuse M700 has an OD green plastic cover and black core center. It has a single yellow band every 12 or 18 inches and a double yellow band every 60 or 90 inches. **WARNING:** Test every coil of fuse, or remnant of a coil, using the burning-rate test prior to use. One test per day per coil is sufficient.

**CAUTION:** Never use the first and last 6 inches of a coil because moisture may have penetrated the coil to this length.

- (1) Use M2 crimpers and cut 6 inches from the safety or M700 time fuse and discard.
- (2) Measure and cut 3 feet of fuse using the M2 crimpers.

### Performance Steps

- (3) Attach an M60 weatherproof fuze igniter to one end of the time fuze.
  - (a) Unscrew the fuse holder cap two or three turns.
  - (b) Press the shipping plug into the igniter to release the split collet, then rotate the plug as it is removed.
  - (c) Insert the end of the fuse in place of the plug until the fuse rests against the primer.
  - (d) Tighten the cap sufficiently to hold the fuse in place, thus waterproofing the joint.

NOTE: A safety fuse has a burn rate of from 30 to 45 seconds per foot. Time fuse M700 has a burn rate of 36 to 44 seconds per foot. WARNING: Test burn a 3-foot length of time fuse to determine the exact rate prior to use.

- (4) Ignite the time fuse to test burn time fuse.
  - (a) Remove the safety pin.
  - (b) Push the plunger all the way in.
  - (c) Turn 1/4 turn and pull.

NOTE: If the fuse igniter fails, reset and try again.

- (5) Record the starting time of ignition and continue to time the fuse until it finishes burning.
  - b. Determine the average burn time for the time fuse.
    - (1) Compute the burning rate of 1 foot of time fuse in seconds.
    - (2) Total burning time for 3 feet of time fuse (in seconds) divided by 3 will equal the burning time of 1 foot of time fuse.

NOTE: Formula: [3 foot burn (in seconds)]/3 (feet) = Burn time per foot 1 foot burn time

- c. Determine the amount of time required for personnel to retreat to a safe shelter.

NOTE: Retreat time for ranges vary depending on explosive quantities allowed. "Retreat Time" and "Safe Separation Time" mean the same thing.

- (1) Using a watch, record the start time at the destruction site.
- (2) Walk at a normal pace from the destruction site to protective shelter.
- (3) Record the finish time at protective shelter.

- d. Determine the amount of time fuse required for retreat.

NOTE: The total retreat time in seconds divided by the burning time of 1 foot will equal the total number of feet of time fuse required. Formula: [Total retreat time (in seconds)]/1 foot burn time (in seconds) = Total feet of time fuse required Example: [480 seconds retreat time (in seconds)]/40 seconds [1 foot burn time (in seconds)] = 12 feet of time fuse required

- e. Cut the required length of time fuse necessary to permit the person detonating the charge to reach shelter or a safe distance by walking at a normal pace before the explosion.
- f. Attach an M60 weatherproof fuze igniter to one end of the time fuse.
  - (1) Unscrew the fuse holder cap two or three turns.
  - (2) Press the shipping plug into the igniter to release the split collet, then rotate the plug as it is removed.
  - (3) Insert the end of the fuse in place of the plug until the fuse rests against the primer.
  - (4) Tighten the cap sufficiently to hold the fuse in place, thus waterproofing the joint.
- g. Install priming adapter, if being used, by placing the time fuse through the adapter before installing (crimping) the blasting cap onto the fuse. Check that the adapter threads are pointing to the end of the time fuse that will have the blasting cap attached to it.

WARNING: Foreign matter in a non-electric blasting cap may cause a misfire. If foreign matter is to be removed from a non-electric blasting cap, do not tap cap against anything. Never blow into cap. Do not insert anything into cap to remove dirt or foreign material. A crimp too near the explosive in a blasting cap may cause detonation. Blasting caps are sensitive to heat, shock and friction. Handle with care and do not drop. Do not carry in the pocket.

- h. Inspect the non-electric blasting cap for foreign matter by doing the following.
  - (1) Take one non-electric blasting cap from the blasting cap box.
  - (2) Hold the cap near the open end and between the thumb and the ring finger of one hand, with the forefinger of the same hand on the closed end of the blasting cap.

NOTE: You should see a yellow-colored ignition charge.

- (3) Look into the open end of the blasting cap. If there is dirt or foreign matter present, do the following.
  - (a) Aim the open end of the cap at the palm of the second hand.

**Performance Steps**

- (b) Gently bump the wrist of the cap-holding hand against wrist of other hand to remove any foreign material.

NOTE: If the foreign matter does not dislodge, DO NOT use the cap.

- i. Place the non-electric blasting cap on the time or M700 blasting fuse by doing the following:
  - (1) Hold the time blasting fuse vertically with the square-cut end up, and slip the nonelectric blasting cap gently down over the fuse so the flash charge in the cap touches the fuse.

WARNING: If the charge in the cap is not in contact with the fuse, the fuse may not ignite the cap (misfire). Never force a time fuse into a non-electric blasting cap, for example, by twisting or any other method. If the fuse end is flat or too large to enter the blasting cap freely, roll the fuse between the thumb and fingers until it will freely enter the cap. A rough, jagged cut fuse inserted in a blasting cap can cause a misfire. If the cutting jaws of the M2 crimper are unserviceable, use a sharp knife to cut the fuse. When using a knife to cut fuse squarely, cut a fuse against a solid, non-sparking surface such as wood.

- (2) Apply slight pressure with the forefinger on the closed end of the cap, grasp the fuse with the thumb and ring finger.
- (3) Using the opposite hand, grasp the M2 crimpers.

NOTE: Ensure you use the crimping slot and not the cutting slot to crimp the cap.

- (4) Place the crimping jaws around the cap at a point 1/8 to 1/4 inch from the open end. The thumb and ring finger that hold the fuse will be under the M2 crimpers.
- (5) Rest the second finger of the hand holding the fuse on top of the M2 crimpers to prevent the crimpers from sliding up the cap.
- (6) Extend arms straight out at eye level while rotating the hands so that the closed end of the non-electric blasting cap is pointing away from the body and from other personnel.
- (7) Tip your head down to protect the face and eyes.

WARNING: DO NOT crimp too close to the explosive end of the blasting cap; doing this may cause the cap to detonate. Point the cap out and away from the body during crimping.

- j. Crimp the non-electric blasting cap using the crimping jaws by firmly squeezing the M2 crimper handles together at a point between 1/8 to 1/4 inch from the open end of the blasting cap.
- k. Inspect the crimp after it has been crimped. Check that the fuse and cap are properly joined by gently trying to pull them apart.

NOTE: Non-electric firing system is now complete.

#### 11. Prepare an electrical firing system:

NOTE: Electric firing system uses an electric blasting cap as the explosion initiator. The initiation set consists of an electric blasting cap, the firing wire, and a blasting machine. An electric impulse (usually provided by a blasting machine) travels through the firing wires and blasting cap leads, detonating the blasting cap that initiates the explosion. When combined with detonating cord, a single initiation set can fire multiple charges. CAUTION: Radio waves can cause electric blasting caps to detonate.

- a. Test and maintain control of the blasting machine.
  - (1) Test the blasting machine to check that it is operating properly.
    - (a) Release the blasting machine handle by rotating the retaining ring (D-ring) downward while pushing in on the handle.
    - (b) The handle will automatically spring outward from the body of the machine.
    - (c) Hold machine upright, Plunger end of handle should rest in the base of the palm with fingers grasping the body.
    - (d) Squeeze the handle repeatedly to dump the capacitor. Light will flash between posts when functioning properly.
  - (2) Control access to all blasting machines.

NOTE: The supervisor is responsible for controlling all blasting machines.

- b. Test the galvanometer or M5 1 Blasting-Cap Test Set.

NOTE: 1) The M51 test set is a self-contained unit with magneto-type impulse generator, and indicator lamp, a handle to activate the generator, and two binding posts for attaching wire leads. The test set is waterproof and capable of operation at temperatures as low as 40 degrees Fahrenheit. 2. Handle the M51 test set carefully and keep it dry to assure maximum usage.

- (1) Test the M51 Blasting-Cap Test Set by doing the following:
  - (a) Hold a piece of bare wire or the legs of the M2 crimpers between the binding posts.

### Performance Steps

- (b) Depress the handle sharply while observing the indicator lamp. The indicator lamp should flash.
- (c) Remove the bare wire or crimper legs from the binding posts.
- (d) Depress the handle sharply while observing the indicator lamp. This time the indicator lamp should not flash.
- (e) Perform both tests to check that the test set is operating properly. Replace the test set if it fails either test.

NOTE: Galvanometers may be used in lieu of the M51 test set if available. It should have a reading of 23 to 25 units, if the continuity is good.

- (2) Test the galvanometer by doing the following:
  - (a) Hold a piece of bare wire or the legs of the M2 crimpers between the binding posts. This short-circuits both posts of the galvanometer. There should be a reading of about half way on the scale (23 to 25 units).
  - (b) Remove the piece of wire or crimper legs from both posts. This time there should be no reading on the scale.
  - (c) Perform both tests to check that the galvanometer is operating properly. Replace the galvanometer if it fails either test.
- c. Check the electrical firing wire on the reel for continuity using the galvanometer or M5 1 test set.
  - (1) Separate the firing wire leads at both ends.
    - (a) Connect the wire leads at one end to the posts of the galvanometer or M5 1 test set.
    - (b) Squeeze the M5 1 test set. The indicator lamp should NOT flash. If it does, the lamp's flash indicates a short circuit in the firing wire. Replace the firing wire and retest the circuit.
    - (c) With the galvanometer there should be no reading on the scale. A reading on the scale indicates a short circuit in the firing wire. Replace the firing wire and retest the circuit.

NOTE: Use at least three 180-degree turns to shunt the wires.

- (2) Shunt the wires at one end.
  - (a) Connect the wire leads from the other end to the posts of the galvanometer or M5 1 test set.
  - (b) Squeeze the M51 test set. NOTE: The indicator lamp should flash. If it does not, the lamp's failure to light indicates a break in the firing wire. Replace the firing wire and retest the circuit.
  - (c) With the galvanometer there should be a reading of about halfway on the scale (23 to 25 units). NO reading on the scale indicates a break in the firing wire. Replace the firing wire and retest the circuit.

NOTE: Use at least three 180-degree turns to shunt the wires.

- (3) Shunt both ends of the firing wire after testing.
- d. Lay the firing wire.
  - (1) Locate a firing position a safe distance away from the charges.
  - (2) Lay out the firing wire between the charges and the firing position.

NOTE: More than one firing wire may be needed.

CAUTION: DO NOT allow vehicles to drive or personnel to walk on the firing wire.

- (3) Bury the firing wire or lay it flat on the ground.

WARNING: Keep the firing wire as short as possible. Avoid creating loops in the wire. Lay the wire in as straight a line as possible. DO NOT connect it to a blasting machine through the unused portion of the wire on the reel.

- (4) Cut the wire to length.
- e. Retest the firing wire after it is laid out.

NOTE: The process of unreeling the firing wire may have separated broken wires not found when the wire was tested on the reel.

- (1) Perform the open and short-circuit tests again. Use hand signals to indicate the test results.

### Performance Steps

NOTE: Hand signals are necessary due to the distance involved between the charges and the firing position. The person testing the wire may also give these signals directly to the soldier at the opposite end of the wire.

- (a) The tester indicates to the assistant to have the soldier at the far end of the firing wire unshunt the wire by extending both arms straight out at shoulder height.
- (b) The soldier at the opposite end of the tester unshunts the wire and then sends the same signal back to the tester that his end is unshunted.
- (c) The tester tests the wires open using the galvanometer or the M51 Test Set. 1 M51 Test Set indicator lamp should not flash. 2 The galvanometer should have no reading. 3 Replace and retest the circuit when reading is incorrect.
- (d) The tester indicates to the assistant to have the soldier at the far end of the firing wire shunt the wire by clasping the hands together and extending the arms above the head, elbows bent, forming a diamond shape.
- (e) The soldier at the opposite end of the tester shunts the wire and then sends the same signal back to the tester that his end is shunted.
- (f) The tester tests the wires closed using the galvanometer or the M5 1 Test Set. 1 M51 Test Set indicator lamp should flash. 2 The galvanometer should have a reading of about half scale (23 to 25 units). 3 Replace and retest the circuit when the reading is incorrect.
- (g) Shunt both ends of the firing wire after the test is complete.

NOTE: Use at least three 180-degree turns to shunt the wires.

- (2) Post a guard at the firing position to prevent anyone from tampering with the wires or firing the charges prematurely.
- f. Test an electric blasting cap using the galvanometer or M51 test set.
  - (1) Remove the cap from its spool. Place the cap in the palm of the hand, lead wires passing between the thumb and index finger.
  - (2) Wrap the wire around the palm of the hand twice.

NOTE: Doing this prevents tension on the wires in the cap and prevents the cap from being dropped.

- (3) Grasp the wire spool with the free hand and unreel the wire, letting the wire pass between the fingers as you turn the spool.
- (4) Completely unreel the cap wires from the cardboard spool.

CAUTION: Avoid letting the wires slip off the ends of the cardboard spool, as this will cause excessive twists and kinks in the wires and prevent the wires from separating properly.

- (5) Place the blasting cap under a sandbag or shield while extending the wires to their full length.

WARNING: Ground yourself to drain static electricity from your body and turn your back to the cap before testing.

CAUTION: Test blasting caps away from all other personnel.

- (6) Test the electric blasting cap.
  - (a) Remove short-circuit shunt from the lead wires.
  - (b) Hold or attach one lead wire to one of the posts of the M51 test set or the galvanometer.
  - (c) Hold or attach the second lead wire to the other binding post of the M51 Test Set or the galvanometer. There should be a reading of about half way on the scale (23 to 25 units). If there is no reading, the cap is defective. Do not use it. Replace and retest the electric blasting cap when the reading is incorrect.
  - (d) Depress the handle of the M51 Test Set sharply while observing the indicator lamp. The blasting cap is good if the indicator lamp flashes. If the lamp does not flash, the cap is defective. Do not use it. Replace and retest the electric blasting cap when the reading is incorrect.
  - (e) Shunt both ends of the lead wires after the test is complete.

NOTE: Use at least three 180-degree turns to shunt the wires.

- g. Attach the electric blasting cap lead wires to the firing wire.

NOTE: The wire leads of the blasting cap will be connected before priming the charge.

### Performance Steps

- (1) Connect the wire leads of blasting cap to the firing wire using a Western Union pigtail splice.
- (2) Insulate the connections with tape.

WARNING: NEVER use the cardboard spool that comes with the blasting cap to insulate the connection. The firing wire is likely to break when bent to fit into the spool.

h. Test the entire firing circuit.

NOTE: Before priming the charge, test the circuit from the firing point.

- (1) Check that the blasting cap is under protective sandbags.
- (2) Connect the ends of the firing wire to the M51 test set or galvanometer.
  - (a) There should be a reading of about half way on the scale (23 to 25 units) on the galvanometer.
  - (b) If there is no reading, there is a break in the circuit. Do not use it.
  - (c) Depress the handle of the M51 Test Set sharply while observing the indicator lamp. 1 The blasting cap is good if the indicator lamp flashes. 2 If the lamp does not flash, there is a break in the circuit. Do not use it.
  - (d) Replace and retest the entire system.
  - (e) Shunt both ends of the firing wire after the test is complete.

NOTE: Use at least three 180-degree turns to shunt the wires. NOTE: Ignition of the charge: See steps 12-18.

WARNING: DO NOT prime charges or connect blasting caps to detonating cord until all other steps of the preparation sequence have been completed.

12. Place an adequate number of demolition charges in intimate contact on top of the items to be detonated.

WARNING: Check that the person priming the charge has the blasting machine in his or her possession at all times. A minimum of 6 feet of detonating cord must be above ground. Never bury blasting caps. Prime charges only when there is a minimum number of personnel on site.

13. Prime the plastic explosive using the detonating cord.

NOTE: It is not recommended that plastic explosives be primed by wrapping them with detonating cord, since insufficient wraps will not properly detonate the explosive charge.

- a. Form an Uli knot, double overhand knot, or triple roll knot.
- b. Cut a notch out of the explosive large enough to insert the knot.

WARNING: Use a sharp knife on a non-sparking surface to cut explosives.

- c. Insert the knot in cut out notch of the explosive.
- d. Cover the knot with the excess of explosives that was removed.
- e. Check that there is at least 1/2 inch of explosive on all sides of the knot.
- f. Wrap the primed area with tape.

14. Cover ammunition and the primed charge in the pit with NO LESS THAN 2 feet of earth.

NOTE: All charges should be dual primed, preferably with one electric and one non-electric blasting cap.

15. Dual prime the detonating cord with a non-electric firing system and an electric firing system.

- a. Attach the blasting caps to the detonating cord with tape.

NOTE: String, cloth, or fine wire may be used if tape is not available.

- b. Tape the cap securely to a point 6 inches from the end of the detonating cord.
- c. Tape the cap without concealing both ends of the cap; no more than 1/8 of an inch needs to be exposed.

16. Clear the area.

- a. Look around the area.
- b. Give the command "Fire in the Hole" three times facing from left to right.

**Performance Steps**

NOTE: For non-electric firing system go to 17 below. For electric firing system go to 18 below.

WARNING: The individual in charge must give the signal for ignition of the fuse and only after all other personnel in the area are protected or have reached a safe distance. In case of misfire, wait 30 minutes before checking the destruction site. If necessary, set up another non-electric system and prime the charge or place a new charge next to the misfired charge and initiate it.

- 17. Ignite the non-electric firing system, leave area, and take cover.
  - a. Remove the safety pin.
  - b. Push the plunger all the way in.
  - c. Turn 1/4 turn and pull.

NOTE: If fuse igniter fails, reset and try again.

- 18. Ignite the electric firing system.
  - a. Test the firing circuit using an M51 test set or galvanometer.
    - (1) Connect the ends of the firing wire to the M51 test set or galvanometer.
      - (a) There should be a reading of about half way on the scale (23 to 25 units) on the galvanometer.
      - (b) If there is no reading, the circuit is defective; do not use it. Use misfire procedures.
    - (2) Depress the handle of the M51 test set sharply while observing the indicator lamp.
      - (a) The blasting cap is good if the indicator lamp flashes.
      - (b) If the lamp does not flash, the cap is defective, do not use it. Use misfire procedures.
  - b. Give the command "Fire in the Hole" three times facing from left to right.
  - c. Connect the firing wire to the blasting machine at the firing circuit.
  - d. Initiate the blasting machine.
    - (1) Hold the blasting machine upright (terminals up), with plunger end of the handle resting in the base of the palm and the fingers grasping the machine's body.

NOTE: Hold the machine correctly; failure to do so can cause damage to the handles.

- (2) Squeeze the handgrip sharply several times until the explosives detonate.

WARNING: In case of misfire, investigate immediately for electrically single primed charge. Wait at least 30 minutes before checking non-electric or dual-primed firing systems after the expected time of detonation of the non-electric firing system.

**Evaluation Preparation:** Setup: Check that all materials, tools, and equipment are serviceable and available to the soldier, and that personnel required in the conditions section are available. Have available the additional personnel safety observers required to do this task. Brief Soldier: Tell the soldier to review the materials, tools, and equipment and to check that everything needed to complete the task is present and serviceable. Have the soldier review instructions and safety precautions before beginning this task.

**Performance Measures**

GO    NO GO

WARNING: Failure to follow safety procedures and the correct steps can cause serious injury or death to personnel and damage to equipment or the environment. STOP IMMEDIATELY if safety is violated or a step is done out of sequence or incorrectly. NOTE: Preparing site for destruction. See steps 1-3.

- |   |   |   |
|---|---|---|
| 1. Removed all dry grass, leaves, and other combustible material within a 200-foot radius from the point of destruction.                          | — | — |
| 2. Displayed a red flag, posted guards, and placed warning triangles around the destruction area.   | — | — |
| 3. Established telephone or two way radio communications with the protective shelter, range control, fire department, and local medical facility. | — | — |
| NOTE: Destroying unserviceable ammunition by burning. See steps 4-5.  |   |   |
| 4. Conducted a surface burn.  | — | — |
| 5. Conducted a pit burn.  | — | — |

**Performance Measures**

**GO**      **NO GO**

NOTE: Destroying unserviceable ammunition by detonation. See steps 6-17.

- |  |   |   |
|--|---|---|
| 6. Stacked or positioned unserviceable ammunition to prevent an unwanted detonation.   | — | — |
| 7. Checked that the pit was at least 4 feet in depth.  | — | — |
| 8. Placed fragmentation grenades, high explosive (HE) projectiles, mines, photoflash munitions, mortar shells bombs, HE rockets, warheads that were separated from the motors, and other components for destruction on their sides or in the position that exposed the largest area to the influence of the initiating explosives. | — | — |
| 9. Prepared a non-electric firing system.  | — | — |
| 10. Prepared an electrical firing system.  | — | — |

NOTE: Igniting the charge. See step 12-18.

- |  |   |   |
|--|---|---|
| 11. Placed an adequate number of demolition charges in intimate contact on top of the items to be detonated. | — | — |
| 12. Primed the plastic explosive using the detonating cord.  | — | — |
| 13. Covered ammunition and the primed charge in the pit with NO LESS THAN 2 feet of earth.                   | — | — |
| 14. Dual primed the detonating cord with a non-electric firing system and an electric firing system.         | — | — |
| 15. Cleared the area.  | — | — |
| 16. Ignited the non-electric firing system, left the area, and took cover.                                   | — | — |
| 17. Ignited the electric firing system.  | — | — |

WARNING: In case of misfire, investigate immediately for electric single primed charge. Wait at least 30 minutes before checking non-electric or dual-primed firing systems after the expected time of detonation of the non-electric firing system.

**Evaluation Guidance:** Score the soldier GO if all steps are passed (P). Score the soldier NO-GO if any step is failed (F). If the soldier fails any step, show what was done wrong and how to do it correctly.

**References**

**Required**

- DA PAM 385-64
- FM 4-30.13
- FM 5-250
- TM 9-1300-277

**Related**

- AR 385-10
- AR 385-64
- TM 9-1375-213-12

**Ship Munitions**

**093-55B-1371**

**Conditions:** Perform this task at an ammunition storage area given the following: ammunition to be shipped; materiel handling equipment (MHE); outload drawings; blocking and bracing materials; transportation conveyances; explosive placards; shipping documents; safety equipment (gloves, eye protection, goggles); fire extinguishers, AMC DWG 19-48-75-5, Code of Federal Regulation Title (49 CFR), DA Pam 385-64, DA Pam 710-2-1, DA Pam 710-2-2, TM 38-250.

**Standards:** Prepared munitions to be shipped in accordance with the outload drawings. Conducted ammunition shipment operations using different modes of transportation. Performed this task without errors and avoiding injuries to personnel or damage to equipment, environment, or munitions.

**Evaluation Preparation:** Check all equipment listed in the conditions statement for serviceability and make them available to the soldiers. Brief the soldiers on the task and state the mode of transportation to be used during this operation. Ensure all steps are followed safely without causing personnel injuries or damage to the equipment or the environment.

<b>Performance Measures</b>	<b><u>GO</u></b>	<b><u>NO GO</u></b>
1. Performed pre-shipment administrative coordination.	_____	_____
a. Identified mode of transportation.		
b. Identified ammunition compatibility requirements.		
c. Verified outload drawing for shipment.		
d. Ensured the number of conveyances requested was based on the ammunition quantities and compatibility requirements.		
2. Coordinated conveyances inspection with the surveillance section prior to loading.	_____	_____
3. Performed loading operations.	_____	_____
a. Ensured selected stocks are palletized in accordance with the proper outload drawing.		
b. Selected an adequate area for the loading operation.		
c. Safely operated the MHE to load the ammunition.		
d. Affixed explosive placards to conveyances as applicable.		
e. Used safety equipment, tools, and materials effectively to perform the operation.		
4. Performed post-loading operations.	_____	_____
a. Secured load by blocking, bracing, or other approved method described in the outload drawings.		
b. Completed the operation within the established time constrains.		
c. Reported mission accomplishment to the supervisor.		

**Evaluation Guidance:** Score the soldier GO if all steps are passed. Score the soldier NO-GO if any steps are failed. If the soldier scores NO-GO, show the soldier what was done wrong and how to do it correctly.

**References**

<b>Required</b>	<b>Related</b>
AMC DWG 19-48-75-5	
CFR 49	
DA PAM 385-64	
DA PAM 710-2-1	
DA PAM 710-2-2	
TM 38-250	

**Prepare Retrograde Operations**  
**093-55B-1373**

**Conditions:** Perform this task at an ammunition storage activity given the following: excess ammunition; disposition instructions; materiel handling equipment (MHE); dunnage; banding equipment; required tools; modes of transportation; personnel safety equipment, Code of Federal Regulations, Title 49 (49 CFR), DA Pam 385-64, TM 38-250.

**Standards:** Prepared excess ammunition for shipment to a designated area because it was no longer essential to requirements or the mission had been completed. Performed this task error free and without causing personnel injuries or damage to equipment or the environment.

**Evaluation Preparation:** Check to ensure all equipment listed in the conditions statement is available and serviceable. State the mode of transportation to be used during the operation and provide all references pertaining to the type of shipment.

<b>Performance Measures</b>	<u><b>GO</b></u>	<u><b>NO GO</b></u>
1. Received information on the ammunition to be retrograded.	—	—
2. Prepared MHE, dunnage, and other necessary tools for the operation.	—	—
3. Palletized ammunition in accordance with the outload drawings.	—	—
4. Loaded ammunition onto conveyances according to compatibility requirements.	—	—
5. Blocked, braced, or otherwise secured the ammunition loads in accordance with the outload drawings.	—	—
6. Completed loading operation and reported to the supervisor.	—	—

**Evaluation Guidance:** Score the soldier GO if all steps are passed. Score the soldier NO-GO if any steps are failed. If the soldier scores NO-GO, show the soldier what was done wrong and how to do it correctly.

**References**

**Required**  
CFR 49  
DA PAM 385-64  
TM 38-250

**Related**

Skill Level 2

Subject Area 8: Ammunition Unit Operations

**Prepare Munitions for Shipment**

**093-55B-2175**

**Conditions:** Perform this task at an ammunition supply point (ASP) using the following equipment: DA Form 3151-R; banding equipment; DA Form 3020-R; pallets; packing material; hammer; explosive labels; AMC DWG19-48-75-5; boxes; lead wire seals; nails; palletization drawings; additional personnel; safety equipment.

**Standards:** The ammunition listed on the DA Form 3151-R was correctly packed, palletized, and labeled for shipment according to the ammunition drawing. Performed this task error free and without causing injury to self or other personnel, damage to the environment, and damage to the ammunition or to any equipment. All safety procedures and precautions were followed.

**Evaluation Preparation:** Setup: Check that all materials, drawings, equipment, manuals, and forms required in the conditions section are available to the soldier and in a serviceable condition, except for ammunition items required to be repaired. Additional personnel must be available for preparing ammunition for shipment. Brief Soldier: Tell the soldier to prepare ammunition for shipment using all required materials, drawings, equipment, manuals, and forms. Review the materials, tools, forms, and manuals to check that everything needed for the task is available. No coaching is authorized.

**Performance Measures**

	<u>GO</u>	<u>NO GO</u>
1. Received a partially completed DA Form 3151-R from stock control.	—	—
2. Selected the correct palletization drawing using AMC DWG 19-48-75-5.	—	—
3. Selected the ammunition from the storage location using DA Form 3151-R.	—	—
4. Verified the amount, national stock number (NSN), Department of Defense Identification Code (DODIC), nomenclature, lot number, and ammunition condition code (ACC) using DA Form 3151-R.	—	—
NOTE: If the correct lot number or quantity is not located at the storage area, notify stock control.		
5. Inspected for open or broken boxes.	—	—
6. Inspected for broken pallets.	—	—
7. Inspected for broken banding.	—	—
8. Inspected boxes or projectiles for illegible marking.	—	—
9. Checked that light boxes were marked correctly and painted orange.	—	—
10. Replaced or repaired any defects identified.	—	—
11. Notified stock control when broken boxes were present and damage to the ammunition was suspected.	—	—
12. Palletized ammunition for shipment using the applicable palletization drawing.	—	—
13. Palletized white phosphorus ammunition nose end UP, except for white phosphorus rockets with rocket motors which will be placed nose DOWN.	—	—
14. Annotated the shipment transaction on DA Form 3020-R.	—	—

**Performance Measures**

	<u>GO</u>	<u>NO GO</u>
15. Placed explosive labels on the pallets.	—	—
16. Completed DA Form 3151-R.	—	—
17. Returned completed DA Form 3151-R to stock control.	—	—

**Evaluation Guidance:** Score the soldier GO if all steps are passed (P). Score the soldier NO-GO if any step is failed (F). If the soldier fails any step, show what was done wrong and how to do it correctly.

**References**

**Required**

AMC DWG 19-48-75-5  
DA FORM 3020-R  
DA FORM 3151-R

**Related**

FM 4-30.13

**Prepare Site for Storage of Munitions  
093-55B-2176**

**Conditions:** Perform this task at an ammunition storage site given the following: Incoming ammunition; magazines or pads; various sizes of dunnage; rakes; brooms; shovels; axes; water hoses; fire beaters; water buckets; breathing apparatus or protective mask; additional personnel; fire extinguishers; portable lights; floodlights; pallet jacks; forklifts; trucks; DA Pam 385-64; AR 190-11; FM 4-30.13.

**Standards:** Prepared the magazine or pad for the storage of ammunition by cleaning the area and clearing all equipment except pallet jacks and fire fighting equipment. Performed this task error free and without causing damage to self or other personnel or damage to the environment, the ammunition, or any equipment. All safety procedures and precautions were followed.

**Evaluation Preparation:** Setup: Check that all materials, drawings, equipment, manuals, and forms required in the conditions section are available to the soldier and in a serviceable condition, except for ammunition items required to be repaired. Additional personnel must be available for preparing ammunition for shipment. Brief Soldier: Tell the soldier to prepare the site for storage of ammunition using all required equipment. Review the material, tools, and manuals to check that everything needed for the task is present.

<b>Performance Measures</b>	<b><u>GO</u></b>	<b><u>NO GO</u></b>
1. Cleared a 50-foot firebreak around the storage site.	—	—
2. Did not allow smoking allowed within 50 feet of the storage site.	—	—
3. Positioned two fire extinguishers at the storage site.	—	—
4. Removed all undergrowth and vegetation.	—	—
5. Did not burn vegetation or undergrowth within 50 feet of earth-covered magazines or within 200 feet of above ground magazines or outdoor storage sites (or pad) that contained ammunition or explosives.	—	—
6. Removed all oily rags, explosive scraps, and paper from the site.	—	—
7. Placed oily rags, explosive scraps, and paper in properly marked self-closing noncombustible containers.	—	—
8. Dug trenches around the magazine or pad for proper drainage, if needed.	—	—
9. Swept magazine floors with a nonabrasive compound, hot water, or steam.	—	—
10. Checked for floodlights and portable lighting when receiving an incoming shipment at night.	—	—
11. Consolidated the ammunition presently stored at the site.	—	—
12. Checked that ammunition in the magazine or on pads was maintained in accordance with explosive safety limits and compatibility group requirements outlined in DA Pam 385-64.	—	—
13. Selected the proper size dunnage required for an incoming shipment.	—	—
14. Placed working quantities of dunnage 50 feet from a magazine or storage pad.	—	—
15. Placed bulk stacks of dunnage within 100 feet of the magazine or storage pad.	—	—
16. Checked that high security padlocks were in place in accordance with AR 190-11.	—	—

**Performance Measures**

**GO**    **NO GO**

17. Returned equipment and materials to their proper location upon completion of the task.      \_\_\_\_\_      \_\_\_\_\_

18. Notified your supervisor that the mission is complete.      \_\_\_\_\_      \_\_\_\_\_

**Evaluation Guidance:** Score the soldier GO if all steps are passed (P). Score the soldier NO-GO if any step is failed (F). If the soldier fails any step, show what was done wrong and how to do it correctly.

**References**

**Required**

- AR 190-11
- DA PAM 385-64
- FM 4-30.13

**Related**

**Perform Retrograde Operations  
093-55B-2179**

**Conditions:** Perform this task at an ammunition storage area given the following: excess ammunition; materiel handling equipment (MHE); and modes of transportation.

**Standards:** Loaded and shipped excess ammunition out of the storage area to another designated storage location as directed by the management center.

<b>Performance Measures</b>	<u><b>GO</b></u>	<u><b>NO GO</b></u>
1. Received disposition instructions for retrograde ammunition.	—	—
2. Identified ammunition to be shipped.	—	—
3. Inspected ammunition and packaging for serviceability.	—	—
4. Repacked items as necessary to meet shipping criteria.	—	—
5. Palletized items and loaded for shipment in accordance with shipping drawings.	—	—
6. Conducted shipment operations.	—	—

**Evaluation Guidance:** Score the soldier GO if all steps are passed. Score the soldier NO-GO if any steps are failed. If the soldier scores NO-GO, show the soldier what was done wrong and how to do it correctly.

**References  
Required**

- Related**  
 AR 190-11  
 AR 385-64  
 DA PAM 710-2-1  
 DA PAM 710-2-2  
 FM 4-30.13  
 TB 9-1300-385

## GLOSSARY

**A&E**

Ammunition and explosives

**AA&E**

Arms, ammunition, and equipment

**ABL**

Ammunition basic load

**ACC**

Ammunition condition code

**Account code change**

The transfer of stocks from one ammunition account to another in order to meet a change in requirements.

**ACCP**

Army Correspondence Course Program

**AIPD**

Army Institute of Professional Development

**AIT**

Advanced individual training; automated identification technology

**AIT HHT**

Automated information technology hand-held terminal

**AMC**

Army Materiel Command

**Ammunition condition code**

Ammunition condition codes are one-position, alphabetic characters used to classify ammunition material. They identify the degree of serviceability, condition, and completeness in terms of readiness for issue and use.

**Ammunition lot number**

Coded identification number assigned to a quantity of ammunition that has been produced by the same manufacturer under uniform conditions. The number is assigned to each lot of ammunition when it is manufactured.

**Ammunition supply point**

An area designated to receive, store, and issue Class V materiel. It is normally located at or near the division area and is operated by the corps direct support (DS) ammunition company.

**Ammunition transfer point**

A temporary site designated for the transfer of Class V material from corps transportation to issuing unit vehicles. The forward ATP is normally located in the brigade area and is operated by one of the following: the supply company, forward support battalion (FSB), in a heavy division; the forward supply company of the supply and transport (S&T) battalion in a light division; or the S&T company of the support battalion of a separate brigade. The ammunition company ATP is normally located in the division area and is operated by the ordnance company, ammunition (DS).

**AN**

Annually

**ANCOC**

Advanced noncommissioned officer course

**ANSI/ISO**

American National Standards Institute/International Organization for Standardization

**AP**

Armor piercing

**ARTEP**

Army training and evaluation programs

**ASA**

Ammunition storage area

**ASP**

ammunition supply point

**AT**

Antitank

**ATACMS**

Army Tactical Missile System

**ATLAS**

All terrain lifter articulated system

**ATP**

Ammunition transfer point

**BA**

Biannually

**BC**

Bicarbonate-based dry chemical suitable for fighting fires in flammable liquids and pressurized gases.

**BNCOC**

Basic noncommissioned officer course

**BOE**

Bureau of Explosives

**Bourrelet**

The raised portion of an artillery projectile between the ogive (projectile head) and the body.

**BW**

Bi-weekly

**BZ**

Incapacitating agent

**CFR**  
Code of Federal Regulations

**CIIC**  
Controlled inventory item code

**CMMC**  
Corps materiel management center

**COFC**  
Container-on-flatcar

**Corps storage area**

A site operated by one or more GS ammunition companies established to store and issue the ammunition requirements of the assigned or attached corps combat units. At least one CSA is needed to support a tactical division using the ASP and ATP network.

**COTS**  
Commercial off-the-shelf

**CSA**  
Corps storage area

**CTT**  
Common task training

**DA**  
Department of the Army

**DAO**  
Division ammunition office; division ammunition officer

**Department of Defense Activity Address Code**

A code comprised of six digits that gives a delivery address for supplies and equipment.

**Department of Defense Ammunition Code**

A code comprised of the 4-digit Federal Supply Class of the ammunition and the 4-digit DODIC.

**Department of Defense Identification Code**

A code comprised of four alpha numeric characters consisting of one letter and three numerals or two letters and two numerals assigned to a generic description used to identify a specific item or component part of Class V material (for example, D544 is the DODIC for 155-mm Projectile, HE).

**Discharge probe**

An insulated contact rod joined to a length of metallic tape or wire which is attached to a ground rod; it is used to ground the cargo hook during sling load operations.

**DMMC**  
Division materiel management center

**DMWR**  
Depot maintenance work request

**DODAAC**  
Department of Defense Activity Address Code

**DODAC**

Department of Defense Ammunition Code

**DODIC**

Department of Defense Identification Code

**Dunnage**

Dunnage is any material on which supplies are stored; for example, boards, planks, blocks, or metal bracing.

**DWG**

Drawing

**EOD**

Explosive ordnance disposal

**FM**

Field manual

**FSC**

Federal Supply Class/Classification

**G**

G-type nerve agents

**GM**

Guided missiles

**GMLR**

Guided missile and large rocket

**H**

H-type mustard agents

**HE**

High explosive

**IDT**

Intra-depot transfer

**L**

Lewisite

**LTD**

Lateral transfer directive

**MDI**

Modernized demolition initiator

**METL**

Mission essential task list

**MHE**

Materials handling equipment; materiel handling equipment

**MLRS**  
Multiple launch rocket system

**MMC**  
Materiel management center

**MO**  
Monthly

**MOS**  
Military occupational specialty

**MRO**  
Materiel release order

**MTP**  
MOS training plan

**National stock number**

The 13-digit stock number that replaced the 11-digit federal stock number. It consists of the 4-digit federal supply classification and the 9-digit national item identification number (NIIN). The NIIN consists of a 2-digit national codification bureau number designating the central catalog office of the NATO or other friendly country that assigned the number and a 7-digit (XXX-XXXX) nonsignificant number. The number is arranged as follows: 9999-00-999-9999.

**NCO**  
Noncommissioned officer

**NSN**  
National stock number

**PWD**  
Public withdrawal distance

**PWP**  
Plasticized white phosphorous

**QT**  
Quarterly

**RDL**  
Reimer Digital Library

**RDX**  
Cyclonite

**Required supply rate**

The quantity of ammunition expressed in terms of rounds per weapon per day for ammunition fired by weapons and, in terms of other units of measure per day, for bulk allotment and other items that estimated to be required to sustain operations of any designated time and without restriction for a specified period.

**RSR**  
Required supply rate

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**SA**  
Semiannually; system administrator

**SAAS**  
Standard Army Ammunition System

**SAAS-ASP**  
Standard Army Ammunition System-Ammunition Supply Point

**SAAS-DAO**  
Standard Army Ammunition System-Division Ammunition Office

**SAAS-MMC**  
Standard Army Ammunition System-Materiel Management Center

**SAAS-MOD**  
Standard Army Ammunition System-Modernization

**SL**  
Skill level

**Sling out**  
Operation that involves loading ammunition into cargo nets and rigging the nets beneath a helicopter for transport. Sling out operations are conducted primarily for emergency resupply of units not accessible by ground transport or when time or security is a critical factor.

**SMCT**  
Soldier's manual of common tasks

**SM/TG**  
Soldier's manual/trainer's guide

**STEPO**  
Self-contained toxic environment protective outfit

**STP**  
Soldier training publication

**Surveillance/quality assurance**  
Activity that involves the observation, inspection, investigation, test, study, and classification of ammunition, ammunition components, and explosives.

**TAMMC**  
Theater Army Material Management Center

**TCMD**  
Transportation Control Movement Document

**TEA**  
Triethyl aluminum

**TEA or TPA**  
An incendiary mixture.

**TF**  
Task force

**Theater storage area**

The TSA is within the communications zone (COMMZ) and is operated by one or more ordnance companies, ammunition (GS). The primary mission of the TSA is to receive, store, issue, and maintain the theater conventional ammunition reserves. When possible, the TSA should be linked with air, road, rail, and seaborne networks and facilities.

**TMMC**

Theater materiel management center

**TNT**

Trinitrotoluene

**TOFC**

Trailer-on-flatcar

**Trinitrotoluene**

An explosive with a chemical composition similar to dynamite.

**TSA**

Theater storage area

**UNIT**

Trained in the unit

**VRTFL**

Variable reach rough terrain forklift

**VX**

Nerve agent

**White phosphorus**

A thick white screening smoke, white phosphorus is a spontaneous flammable that burns on contact with air.

**WK**

Weekly

**WP**

White phosphorus

## REFERENCES

### Required Publications

Required publications are sources that users must read in order to understand or to comply with this publication.

#### Army Regulations

AR 190-11 Physical Security of Arms, Ammunition, and Explosives 12 February 1998

#### Department of Army Forms

DA FORM 1298	Due Out Record
DA FORM 2000-3	Installation Inventory Count Card
DA FORM 2404	Equipment Inspection and Maintenance Worksheet
DA FORM 3020-R	Magazine Data Card
DA FORM 3151-R	Ammunition Stores Slip (LRA)
DA FORM 4508	Ammunition Transfer Record
DA FORM 4999	Due In Record
DA FORM 5037-R	Inventory Control Listing
DA FORM 5203	DODIC Master/Lot Locator Record
DA FORM 581	Request for Issue and Turn-In of Ammunition
DA FORM 5811-R	Certificate-Lost or Damaged Class 5 Ammunitions Items (LRA)

#### Department of Army Pamphlets

DA PAM 25-30	Consolidated Index of Army Publications and Blank Forms 1 April 2001
DA PAM 385-64	Ammunition and Explosives Safety Standards 1 February 2000
DA PAM 710-2-1	Using Unit Supply System (Manual Procedures) 31 December 1997
DA PAM 710-2-2	Supply Support Activity Supply System: Manual Procedures 30 September 1998
DA PAM 738-750	Functional Users Manual for The Army Maintenance Management System (TAMMS) 1 August 1994

#### Field Manuals

FM 4-30.13	Ammunition Handbook: Tactics, Techniques, and Procedures for Munitions Handlers 1 March 2001
FM 25-101	Battle Focused Training 30 September 1990
FM 25-5	Training for Mobilization and War 25 January 1985
FM 5-250	Explosives and Demolitions 30 July 1998
FM 7-0	Training The Force 22 October 2002

#### Other Product Types

AISM-25-L6F-AJA-ZZZ-EM	Standard Army Ammunition System - Modernization (SAAS-MOD) End User's Manual 20 January 1999
AISM-25-L6F-AJA-ZZZ-SA	Standard Army Ammunition System - Modernization (SAAS-MOD) System Administrator Handbook 20 January 1999
AMC DWG 19-48-75-5	Index of US Army Unitization, Storage and Outloading Drawing for Ammunition and Components, May 1993*
CFR 49	Code of Federal Regulations, Title 49
DD FORM 1348-1AA	DOD Single Line Item Release/Receipt Document, July 1991.

DD FORM 1384	Transportation Control and Movement Document
DD FORM 626	Motor Vehicle Inspection (Transporting Hazardous Materials)
MIL STD 644A(5)	Visual Inspection Standards and Inspection Procedures for Inspection of Packaging, Packing, and Marking of Small Arms Ammunition, 3 March 1975.
MIL STD 709C	Ammunition Color Coding 1 October 1972

**Soldier Training Publications**

STP 21-1-SMCT	Soldier's Manual of Common Tasks Skill Level 1 31 August 2003
STP 21-24-SMCT	Soldier's Manual of Common Tasks (SMCT) Skill Level 2-4 31 August 2003

**Technical Bulletins**

TB 9-1300-385	Munitions Restricted or Suspended 20 July 2003
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**Technical Manuals**

TM 10-3930-660-10	Operators Maintenance Manual for Truck, Forklift, 6000 lbs, Variable Reach, Rough Terrain 30 March 1993
TM 38-250	Preparing Hazardous Materials for Military Air Shipments (AFJM 24-204; NAVSUP Pub 505; MCO P4030.19G; DLAI 4145.3) 11 December 2001
TM 43-0001-27	Army Ammunition Data Sheets for Small Caliber Ammunition (FSC 1305) 29 April 1994
TM 43-0001-28	Army Ammunition Data Sheets for Artillery Ammunition: Guns, Howitzers, Mortars, Recoilless Rifles, Grenade Launchers, and Artillery Fuzes (FSC 1310, 1315, 1320, 1390) 28 April 1994
TM 43-0001-29	Army Ammunition Data Sheets for Grenades 30 June 1994
TM 43-0001-30	Army Ammunition Data Sheets for Rocket Systems, Rocket Fuzes, and Rocket Motors (Federal Supply Class 1340) 1 December 1981
TM 43-0001-36	Army Ammunition Data Sheets for Land Mines (FSC 1345) 1 September 1994
TM 43-0001-37	Army Ammunition Data Sheets for Military Pyrotechnics (FSC 1370) 6 January 1994
TM 43-0001-38	Army Ammunition Data Sheets for Demolition Materials 25 July 1994
TM 5-315	Firefighting and Rescue Procedures in Theaters of Operations 20 April 1971
TM 9-1300-200	Ammunition, General 3 October 1969
TM 9-1300-250	Ammunition Maintenance 25 September 1969
TM 9-1300-277	General Instructions for Demilitarization/Disposal of Conventional Munitions 31 March 1982

NOTE: Requests for ammunition drawings may be made to the applicable command as follows: Army: (except chemical and GMLR): Commander, US Army Armament, Munitions, and Chemical Command, ATTN: AMSMC-TDR-TF, Rock Island, IL 61299-6000.

### Related Publications

Related publications are sources of additional information. They are not required in order to understand this publication.

#### Army Regulations

AR 385-10	The Army Safety Program 29 February 2000
AR 385-64	US Army Explosives Safety Program 1 February 2000
AR 420-90	Fire and Emergency Services 10 September 1997
AR 710-2	Inventory Management Supply Policy Below the Wholesale Level 31 October 1997
AR 735-5	Policies and Procedures for Property Accountability 10 June 2002
AR 740-1	Storage and Supply Activity Operations 9 September 2002

#### Department of Army Forms

DA FORM 5692-R	Ammunition Consumption Certificate (LRA)
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#### Department of Army Pamphlets

DA PAM 385-1	Small Unit Safety Officer/NCO Guide 29 November 2001
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#### Field Manuals

FM 21-16	Unexploded Ordnance (UXO) Procedures (FMFM 13-8-1) 30 August 1994
FM 7-1	Battle Focused Training 15 September 2003
FM 90-4	Air Assault Operations 16 March 1987

#### Other Product Types

DD FORM 1650	Ammunition Data Card
MIL STD 1168A	Lot Numbering of Ammunition 18 April 1988.
MIL STD 129J	Marking for Shipment and Storage 25 September 1984.
SF Form 91	Motor Vehicle Accident Report

#### Technical Bulletins

TB 5-4200-200-10	Hand Portable Fire Extinguishers Approved for Army Users 30 September 1991
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#### Technical Manuals

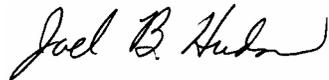
TM 9-1375-213-12	Operator's and Unit Maintenance Manual (Including Repair Parts And Special Tools List) Demolition Materials 30 March 1973
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**STP 9-55B12-SM-TG**  
**22 DECEMBER 2003**

By Order of the Secretary of the Army:

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*General, United States Army*  
*Chief of Staff*

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