Headquarters
Department of the Army
Washington, DC
23 June 2021

*Department of the Army Pamphlet 700–16

Logistics

Ammunition Management

By Order of the Secretary of the Army:

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History. This publication is a major revision.

Applicability. This pamphlet applies to the Regular Army, the Army National Guard/Army National Guard of the United States, and the U.S. Army Reserve, unless otherwise stated. Also, it applies to the Reserve Officer's Training Corps and Corps of Cadets.

Proponent and exception authority. The proponent of this regulation is the Deputy Chief of Staff, G–4. The proponent has the authority to approve exceptions or waivers to this pamphlet that are consistent with controlling law and regulations. The proponent may delegate this approval authority, in writing, to a division chief within the proponent agency or its direct reporting unit or field operating agency, in the grade of colonel or the civilian equivalent. Activities may request a waiver to this regulation by providing justification that includes a full analysis of the expected benefits and must include formal review by the activity's senior legal officer. All waiver requests will be endorsed by the commander or senior leader of the requesting activity and forwarded through their higher headquarters to the policy proponent. Refer to AR 25–30 for specific guidance.

Suggested improvements. Users are invited to send comments and suggested improvements on DA Form 2028 (Recommended Changes to Publications and Blank Forms) via email to usarmy.pentagon.hqda-dcs-g-4.mbx.publications@mail.mil.

Committee management approval. AR 15–39 requires the proponent to justify establishing/continuing committee(s), coordinate draft publications, and coordinate changes in committee status with the Office of the Administrative Assistant to the Secretary of the Army, Special Programs Directorate, 9301 Chapek Road, Building 1458, Fort Belvoir, VA 22060–5527. Further, if it is determined that an established "group" identified within this regulation later takes on the characteristics of a committee as found in AR 15–39, then the proponent will follow AR 15–39 requirements for establishing and continuing the group as a committee.

Distribution. This publication is available in electronic media only and is intended for the Regular Army, the Army National Guard/Army National Guard of the United States, the U.S. Army Reserve, the Reserve Officer's Training Corps, and Corps of Cadets.

*This pamphlet supersedes DA PAM 700-16, dated 26 June 2017.

UNCLASSIFIED

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Chapter 1
Introduction

1–1. Purpose
This Department of the Army pamphlet (DA Pam) provides an overview of the Army Ammunition and Explosive (AE) (also known as Department of Defense (DoD) military munitions) Management Program, key procedures, and references. It is designed to describe the system and basic procedural guidance for full life cycle management and is to be used in conjunction with applicable references for AE management. The life cycle management of AE includes AE research, development, and acquisition; distribution, storage, and maintenance; and production base readiness, management, and stock control procedures including demilitarization.

1–2. References, forms, and explanation of abbreviations
See appendix A. The abbreviations used in this publication are listed in the abbreviations, brevity codes, and acronyms database located at https://armypubs.army.mil/abca/searchabca.aspx.

1–3. Associated publications
Policy associated with this pamphlet is found in AR 700–28.

1–4. Records management (recordkeeping) requirements
The records management requirement for all record numbers, associated forms, and reports required by this publication are addressed in the Records Retention Schedule-Army (RRS–A). Detailed information for all related record numbers, forms, and reports are located in Army Records Information Management System (ARIMS)/RRS–A at https://www.arims.army.mil. If any record numbers, forms, and reports are not current, addressed, and/or published correctly in ARIMS/RRS–A, see DA Pam 25–403 for guidance.

1–5. Roles and responsibilities
See AR 700–28.

Chapter 2
Requirements Determination

Section I

Ammunition Requirements Process

2–1. Overview
At the center of the Army's ammunition program are valid ammunition requirements. All other ammunition functions are driven by operationally validated requirements. The Deputy Chief of Staff (DCS), G–3/5/7 Ammunition Division is responsible for the ammunition requirements determination, validation, and approval process. Ammunition requirements must be accurate, auditable, transparent, and defendable and must comply with AR 5–13.

2–2. Inception and requirements documentation
a. The initial concept to develop a new round of ammunition or a generic group of ammunition may originate either within the research and development community or within the user community. The Joint Capabilities Integration and Development System (JCIDS) plays a key role in identifying the capabilities required by the warfighters to support the national defense strategy, national military strategy, and national strategy for homeland defense.

b. The JCIDS process was created to support the statutory responsibility of the Joint Requirements Oversight Council (JROC) to validate joint warfighting requirements. The JCIDS process supports the acquisition process by identifying and assessing capability needs and associated performance criteria to be used as the basis for the development and production of items to fill those needs. The validated capability requirements from the JCIDS process are the drivers for a large portion of the program objective memo-

randum (POM), including both development of new capability solutions and sustainment of fielded capability solutions. The JCIDS process is initiated through the execution of a capability-based assessment (CBA). The objective of the CBA is to validate both materiel and non-materiel capability gaps identified by the user.

2–3. Requirements generators and development

a. DoDI 3000.04 is the overarching DoD process and policy guidance for estimating each Service's ammunition requirements annually. The Office of the Secretary of Defense (OSD) oversees the munitions requirements process (MRP). The Army's process for estimating ammunition requirements, including wartime, testing, and training needs, is the total munition requirements (TMR). The DCS, G–3/5/7 Ammunition Division is responsible for the TMR.

b. The Army's methodology for estimating wartime ammunition requirements is the qualitative war reserve requirements for ammunition (QWARRM) study conducted by the Center for Army Analysis (CAA). The QWARRM study provides the Army's wartime, scenario-based, ammunition requirements to execute the MRP. Through the QWARRM study, CAA coordinates with the combatant commander (CCDR) and Army service component command (ASCC) planners to ensure CAA modeling accurately replicates the CCDR operations plan (OPLAN) and addresses issues unique to the CCDR and ASCC.

c. The QWARRM study is combined with training and test requirements to produce the TMR.

(1) Training and Doctrine Command (TRADOC) incorporates training strategies, project consumption other than shot factors (like registration), and zeroing—among other factors—as well as combat loads (CLs).

(2) The Army Test and Evaluation Command (ATEC) and Army Materiel Command (AMC) submit test requirements for many types of ammunition testing, including operational, developmental, stockpile reliability, and armament rebuilding.

d. Only JCIDS-approved capabilities are built into the TMR for long-range resourcing. Once a capability has been built into the TMR, resourcing requirements are developed for it. The sum of these requirements are built into the TMR for resourcing across the POM.

e. For urgent operational needs, particularly for items not in the Army inventory, Army commands (ACOMs) submit operational needs statements (ONSs) or urgent needs statements through the Army Requirements and Resourcing Board for approval and resourcing.

2–4. Annual stockage objective development and approval

DCS, G–3/5/7 (DAMO–TRA) publishes annual guidance for developing ammunition requirements and stockage objectives. The guidance outlined in AR 5–13 applies to all ASCCs, ACOMs, and direct reporting units (DRUs). All commands submit proposed stockage objectives and requirements, including for operational projects, operational loads (OPLs), CLs, and sustainment loads (SLs) outside the continental United States (OCONUS) training requirements. All requirements are developed and submitted using the requirements module in the Total Ammunition Management Information System (TAMIS). Validation of all ammunition requirements for war reserve (WR), operational, training, and testing is executed by the DCS, G–3/5/7, Munitions Management Division (Department of the Army (DA) G–37/Training) (G–37/TRA).

2–5. War reserve requirements

a. WR AE requirement development is a deliberate planning process that provides comprehensive, annual updates of Army quantitative AE requirements to fulfill Army responsibilities in Title 10, United States Code (10 USC).

b. The process generates Army requirements for combat, current operations, forward presence, and strategic readiness. It replicates OSD-approved combatant command (COCOM) OPLANs and multi-Service force deployment planning constructs in theater-level campaign models, and it accounts for Joint- and coalition-force capabilities and for Army doctrine and tactics.

c. The MRP is a constrained, risk-informed process that is integrated with Army programming and budgeting management. It provides requirements for programs of record with milestone B approval only. It does not identify capability gaps or required capabilities.

2–6. Combat and sustainment load requirements

The CL and SL requirements are quantities of ammunition developed by the TRADOC proponent and built into TAMIS.

a. CL requirements are standard quantities of ammunition for each individual, crew-served, and weapons platform, as well as the ammunition carriers, whereas the bulk ammunition CLs are assigned by security risk code (SRC). CL requirements support the initiation of contingency and combat operations.

b. SL requirements are ammunition needed to replenish a unit's CL and to sustain a force until resupply can be provided.

2–7. Operational load requirements

Army standard resourcing strategies are outlined in DA Pam 350–38. These strategies support commanders' day-to-day missions and include ammunition needed to support guard forces, installation- and unit-level funeral details, installation explosive ordnance disposal (EOD) missions, and other missions. These requirements are developed at the unit level, validated by G–37/TRA and included in the TMR.

2–8. Training requirements

a. The training MRP is a comprehensive process that encompasses development, validation, and approval. TRADOC proponents develop all training strategies and the Army Ammunition Requirements Council of Colonels validates the ammunition required to support these strategies.

b. Based upon capability gap analysis, TRADOC combat developers write JCIDS capabilities documents for approval through the DA G–37/Capabilities Integration Office.

(1) Once a capability is approved, TRADOC training developers propose programs of instruction for institutional weapons training and Standards in Training Commission (STRAC) strategies for home station and combat training center weapons training.

(2) Approved strategies are built into DA Pam 350–38, STRAC, and TRADOC programs of instruction for units, schools, and Centers of Excellence to use when planning resources needed to conduct training.

(3) Ammunition resources for approved weapons training strategies also are included in the TMR. Requirements in the TMR are then submitted for resourcing in the POM.

2–9. Testing requirements

Testing requirements are managed by command-level managers for Army tests involving standard Army ammunition. Testing is fluid and not conducive to standard calculations, making requirements hard to predict. DA Management Office-Training Ammunition (DAMO–TRA) generates test requirements for programming by the use of historical expenditure rates. For increased accuracy, test customers generate near-year requirements which are used for near-year programming unless the DA-generated, predicted average is higher. Requirements are developed and staffed with ATEC or AMC to ensure accuracy.

2–10. Nonstandard requirements

Nonstandard requirements are requirements for ammunition that have not met safety type classification or achieved full materiel release (FMR) for Army common use. Examples of nonstandard ammunition include commercial off-the-shelf items, such as improvised explosive device simulators and ammunition used by Army marksmanship teams. Army common units with a valid need for nonstandard ammunition will submit requests through command operational channels to DA G–37/TRA for approval in accordance with AR 5–13.

Section II

Determining Priorities

2–11. Prioritization of requirements

a. Prioritization of requirements and funding occur through multiple methods and forums, including publication of funding priorities in the TMR, the semiannual MRP and strategic portfolio analysis review (SPAR), and Assistant Secretary of the Army (Acquisition, Logistics, and Technology) (ASA (ALT))-led weapon system reviews (WSR). The QWARRM, plus training and test requirements, are combined to produce the TMR. Only JCIDS-approved capabilities are built into the TMR for long-range resourcing. Once a capability is built into the TMR, resourcing requirements are developed for it. The sum of these requirements is built into the TMR for resourcing across the POM.

b. Prioritization of inventory occurs through validation of global ammunition stockage objectives, annual authorization, and allocation working groups, such as Munitions Requirements Distribution Plan (MRDP) Stockage Objective Working Group and authorizations in the TAMIS.

c. Prioritization of funding for all programs, including ammunition, is conducted by the DCS, G–3/5/7. This funding-prioritization process is conducted in coordination with other DCS, G–3/5/7 directorates, as well as the DCS, G–4; the DCS, G–8; ASA (ALT); and subordinate commands.

2–12. Operational risk

Under DCS, G–3/5/7, the Munitions Management Division (DA G–37/TRA) integrates ammunition management across the Army. It will analyze operational risks to determine resourcing solutions for requirements that decrease the Army ammunition stockpile. This includes external requirements, such as foreign military sales (FMS) and loans to other DoD and non-DoD agencies. The DCS, G–4 and AMC will provide logistics information to support DCS, G–3/5/7 risk assessments.

2–13. Operational needs statement

a. Commanders may require AE not documented in the Army requirements nor in current DA inventory. In such cases, an ONS should meet a current capability gap in the Army ammunition inventory. Submit it through command channels via the equipment common operating picture to DCS, G–3/5/7 and DCS, G–4 and AMC for review and analysis.

b. ONS are outlined in AR 71–9. Following mission analysis, unit task organization and cross leveling or lessons learned operational commanders use ONSs to document the urgent need for a nonstandard or unprogrammed capability (including ammunition) to correct a deficiency or improve a capability that enhances the likelihood of mission accomplishment.

c. The ONS is particularly useful to support units assigned nonstandard requirements code missions they are not equipped to accomplish. Additionally, the ONS provides an opportunity for the operational commander outside the acquisition, combat development, and training development communities to initiate the capability-determination process. The ONS is not a JCIDS capability document but a request for need validation and sourcing of a perceived, near-term requirement.

Chapter 3
Resourcing

Section I

Strategy

3–1. Resourcing strategy

a. The resourcing strategy is designed to provide sufficient ammunition to support training and testing. Training expenditures are closely monitored to ensure availability for required training and to ensure replenishment of expenditures only. Stock modernization is taken into consideration during replenishment, using old and buying new or improved ammunition to fill shortages.

b. Routine investment in our ammunition industrial facilities is critical to keep these capabilities safe, efficient, effective, and reliable. When determining resourcing strategies, the impact to organic (that is, making an important part of the whole) and commercial producers is taken into consideration.

c. The top priority of the Army resourcing ammunition is to support deployed forces and plan for future combat operations. DCS, G–8 traditionally focuses on POM resourcing. ASA (ALT), along with the Army Budget Office, focuses on the budget year and year of execution. DCS, G–8 and ASA (ALT) collaborate as program evaluation group (PEG) co-chairs for the equipping PEG.

3–2. Ammunition resourcing strategy

The intent of the Army ammunition resourcing strategy is to have a reasonable and serviceable inventory within a range that will protect the industrial base (IB) from production fluctuations and not get into an overbought or underbought situation. Procurements are adjusted annually to maintain WR and pipeline requirements and to replace expenditures.

a. The WR procurement level is based on the serviceable inventory against the TMR. The WR inventory includes only serviceable assets that can be used in wartime.

b. The Army funding strategy procures training ammunition at a rate that allows the MRDP authorization of 100 percent of the TMR training requirements, which will also replenish what has been expended during training. The procurement levels for training standard and training-unique items fall within a resourcing band.

(1) The upper limit of the resourcing band includes WR, including mobilization training plus 100 percent of the TMR training requirement or 2 years of historical expenditures, whichever is greater.

(2) The lower limit of the resourcing band includes WR and mobilization training plus 150 days of the annual training and test requirements.

Section II

Ammunition Funding

3–3. Procurement of Ammunition, Army

There are two budget activity groups (BAGs) within procurement ammunition, Army (PAA) appropriations.

a. BAG 1 funds conventional ammunition, including training and test quantities, WR fill, and WR modernization. BAG 1 may also include overseas contingency operations (OCO) or supplemental funding.

b. BAG 2, Production Base Support, funds Government-owned, contractor-operated (GOCO) Army ammunition plant (AAP) industrial facilities; the Armament Retooling and Manufacturing Support (ARMS) Program; and conventional ammunition demilitarization.

3–4. Specific criteria for the use of Procurement of Ammunition, Army funding

a. Use PAA appropriations specifically for the procurement, production, modification, and demilitarization of conventional ammunition, including components, engineering, and acceptance testing during production periods of major ammunition end items required for operational use, general service use, addition to inventory upon delivery to the Army, and when not an appropriate research, development, test, and evaluation (RDT&E) cost.

b. Use PAA appropriations to procure EOD tools and equipment when inclusion in other appropriations is inappropriate.

c. PAA appropriations are used to support the ARMS Initiative Program.

d. PAA appropriations are the proper and only funding source for the purchase of any ammunition (class V items) regardless of cost. This includes the purchase of nonstandard and not-centrally managed ammunition.

e. PAA appropriations are available for obligation for 3 years and must meet OSD goals of 80 percent obligated and 55 percent disbursed for RDT&E in the first year.

f. WR and operational ammunition are normally procured over the 5-year POM period while training ammunition is procured annually.

3–5. General criteria for use of Procurement of Ammunition, Army funding

a. The following rules are common to procurement appropriations. These appropriations provide for—

(1) Procurement modification kits for items procured under this appropriation or a predecessor procurement appropriation, including installation. Installation of modification kits is annualized.

(2) Cutaway models, primary trainers, and related items that are required in conjunction with training for new equipment or for major modification of existing equipment procured under this appropriation.

(3) Update during production of manuals, illustrations, and other equipment publications (see AR 25–30 for publication policy) to match engineering changes. They include initial preparation for commercial items for which no RDT&E effort was undertaken and for nondevelopmental items with minor RDT&E funding.

(4) Jigs; dies; tooling; fixtures; gauges; inspection equipment; and test, measurement, and diagnostic equipment peculiar to current production of an end item or component procured under these appropriations.

(5) Production engineering in support of current production of equipment procured under these appropriations from commercial source or at an Army installation. It includes nondevelopmental engineering in support of production needed both in advance of and in conjunction with quantity procurement to aid manufacture of type classified or adopted end items and their components and parts. Such engineering may be performed before obligating funds on the actual manufacturing contract.

(6) Materiel used in current production of an end item procured under this appropriation when produced in Government-owned facilities.

(7) Engineered, furnished, and installed equipment as a complete contractual effort.

(8) Establishment, augmentation, improvement, and layaway of production capability for items procured under these appropriations. To determine which procurement appropriation Army management structure (AMS) codes apply, the following guidance applies:

(a) Establishment, rehabilitation, replacement (excluding normal maintenance), modernization, conversion, and expansion of Government-owned industrial facilities in Government-owned (or in some exceptional instances, privately owned) plants to support current production and production testing can be funded with production base support AMS codes from the appropriation which includes the end item supported. In critical areas, it expands the rehabilitation, transportation, site preparation, and installation of equipment. At GOCO facilities, it includes modifying existing facilities; constructing new facilities; and acquiring land, buildings, and utility systems.

(b) It excludes functions that solely support research and development or production of items for testing.

(c) Initial production facilities, special tooling, or special test equipment required to establish production capability for single end items will be funded from the end item AMS code.

(d) Facilities that operated under revolving funds, such as the Defense Business Operations Fund, will be funded with capital investment accounts included in the fund.

(e) Necessary rehabilitation and layaway of industrial facilities upon release from current production will be funded through production base support AMS codes when those facilities are required for mobilization or future production. Costs include preservation of plants and equipment for long-term idleness, rehabilitation when required for future production, disposal of integral equipment not required to support the production base, and transportation of equipment to a storage site.

(f) Charge costs associated with plant clearance or equipment disposal when no mobilization or future production requirement has been documented to the end item AMS code of the active or most recent production program. This includes funds for disposal, plant clearance, and restoration as required.

(g) It excludes layaway of facilities for future RDT&E use.

(9) Engineering for product improvement to investment end items or major components of investment end items which are in production, if this does not increase the then-current-performance envelope.

(10) Transportation charges when such charges are an integral part of the contract costs of end items of equipment procured by these appropriations.

(11) Value engineering for the purpose of reducing procurement costs or life cycle costs of major items, equipment, spares and repair parts, support equipment and facilities, major components, subassemblies, or piece parts being procured or scheduled for procurement by analyzing their function and for identifying changes that will achieve the essential functions at lowest life cycle costs consistent with the required (present) performance, reliability, maintainability, interchangeability, product quality, and safety.

(12) New equipment training, including initial transfer of knowledge from the materiel developer (MATDEV) to trainers, users, and support personnel during production phase of new and improved equipment.

b. First-destination transportation (FDT) relates to the cost of moving materiel from the manufacturer to the first point of acceptance receipt or storage point (SP) by the Government. This represents a portion of a total system cost. FDT includes transportation costs for shipments that may be interrupted for test or modification before acceptance. When materiel is temporarily stored in a depot or other location pending completion of acceptance testing, the application of modifications, assembly, and so forth for user readiness and receipt, it represents an interruption in the FDT movement and not an acceptance into the Army supply system. Subsequent transportation from the depot to the first acceptance point is integral to the major end item acquisition cost and is financed by the procurement appropriation 4544 financed acquisition of the item.

c. Total package fielding is the process used for total system fielding of new and modified equipment. It provides for the concurrent fielding of a materiel system and its required support. The process aims to minimize the logistics burden of fielding on the gaining command.

d. Interim contractor support is a method of support used in compressed or accelerated acquisition programs or when design is not sufficiently stabilized. It provides all or part of a materiel system support by contract for a specified interim period after initial deployment to allow organic support capability to be phased in. This is a support acquisition technique rather than a support concept.

e. The contractor field services representative relates to initial materiel fielding of new equipment. It is limited to a period not to exceed 12 months after initial fielding.

f. Apply program and project managers' (belonging to Joint program executive offices (JPEOs) or to AMC) salaries, benefits, and temporary duty (TDY) and their office automation, administration, and supplies during production phase to the primary hardware procurement budget line item number (BLIN) or, if there is no such BLIN, to the modification BLIN by reimbursing operation and maintenance, Army (OMA) or RDT&E reimbursable or carrier accounts as appropriate. Procurement accounts do not have authorized manpower spaces, which precludes direct charging of salaries and benefits to procurement lines. This does not apply to advance procurement, spares, or training devices (procured in the system's BLIN rather than as a training system or simulator BLIN in other procurement, Army) and it includes a reasonable amount of collocated (where feasible), dedicated, functional support from a materiel command.

3–6. Exclusions for use of Procurement of Ammunition, Army, funding

The following costs will not be funded with PAA appropriations:

a. Second-destination transportation as defined in DoD 7000.14–R.

b. Product improvement costs financed by other appropriations, such as ammunition component improvement through RDT&E, effort on items not in production (normally OMA funded), redesign costs through RDT&E, or efforts that increase performance parameters through RDT&E.

c. Rebuilding.

d. Manufacturing technology funded by RDT&E.

e. JPEO salaries, benefits, and TDY and office automation, administration, and supplies. These are normally OMA funded and subject to Army management headquarters activities limitations.

f. RDT&E activities such as—

(1) Procurement of materiel required to support research and development projects and tasks for testing to prove performance of military characteristics. The exception is that major weapons systems used in a test which will be returned to the inventory after the test may be procured with procurement appropriation funds.

(2) For evaluation to establish or determine suitability.

(3) For any engineering effort, fabrication, or testing required to eliminate or verify the elimination of major deficiencies determined prior to type classification as adopted type.

(4) Program and project managers' (belonging to JPEOs or AMC) salaries, benefits, and TDY and office automation, administration, and supplies during the development phase. These are normally RDT&E funded.

g. AMC program or project managers' salaries, benefits, and TDY and office automation, administration, and supplies during the sustainment phase. These are normally OMA funded.

3–7. Ammunition portfolio

a. The ammunition portfolio includes three management decision packages (MDEPs): WR/Operational Ammunition (RE06), Training Ammunition (RE01), and Ammunition Production Base (RE04).

(1) The WR/Operational Ammunition MDEP funds ammunition for WR sustainment and developmental WR and training standard ammunition items.

(2) The Training Ammunition MDEP procures ammunition required for annual training and supports small research and development efforts related to general ammunition production and training-unique ammunition items.

(3) The Ammunition Production Base MDEP supports GOCO industrial ammunition production facilities. This includes production base facilitation, modernization, prove-out, maintenance and layaway of facilities, production equipment, and correction of environmental deficiencies.

b. The WR/Operational Ammunition MDEP or the Training Ammunition MDEP may contain tank, artillery, mortar, small and medium caliber ammunition, grenades, demolition, mines, nonlethal ammunition, shoulder-launched ammunition, signals, pyro classes, and simulators, depending on how it is categorized in the TMR.

c. New ammunition items, often resulting from the introduction of a new weapon system, upgrades to fire control systems, or changes to requirements that are unique to a particular platform will be funded by the appropriate hardware portfolio. This ensures proper integration with weapon systems platforms; provides G–8 Hardware Division support, buy-in, and prioritization; provides integration with appropriate program managers; and highlights how the ammunition will impact operational capability.

d. The Hardware Division also funds platform-specific testing (such as airworthiness certification and compatibility testing) and will review and program new developmental efforts for new items if a priority and affordable within their portfolio, or it will present a cross portfolio issue. After research, development, and the first 2 years of full-rate production (FRP), most ammunition transfers to the DCS, G–8 ammunition portfolio with a complete funding stream for sustainment, except where there are planned, incremental, modernization requirements or where tight integration is required due to the ammunition' uniqueness to a platform's performance.

e. Most ammunition items developed in other Equipping PEG portfolios (fires; aviation; maneuvers; Soldiers; nuclear, biological, and chemical (protection); and mobility), often in conjunction with new or modernized weapons systems for which the ammunition should be developed along with the weapons system then transitioned to the DCS, G–8 ammunition portfolio for sustainment of annual training and WR procurement.

f. For ammunition items that either transitioned or are already in the ammunition portfolio, the requirement to improve the ammunition through an engineering change proposal, a product improvement, a recapitulation and selected upgrade, or by replacement of a legacy round through modernization, the research and development is funded within the ammunition portfolio.

Chapter 4
Research and Development

4–1. Overview

a. To support modernization goals to improve missile and ammunition management, the Army invests in a partnership between Army science and technology (S&T) and acquisition RDT&E to transition new capabilities to the Soldier through enabling concepts, programs of record, or insertion into the Total Force. Army S&T focuses on high-potential solutions early in concept development and on reducing technological risk. Acquisition RDT&E further matures technology enhancements and new capabilities for demonstration in relevant environments and operational scenarios.

b. Projects are planned and executed collaboratively with the Army's 22 laboratories and research, development, and engineering centers (RDECs) and with Soldiers and leaders who employ warfighting capabilities represented by TRADOC.

c. The major objectives for S&T and acquisition RDT&E related to ammunition management are improvements in effectiveness, reliability, productivity, environmental friendliness, and insensitivity of ammunition or their components. New capabilities and other enhancements also reduce or optimize life cycle costs and improve preservation, packaging, handling, movement, and demilitarization. Efforts conducted as acquisition RDT&E follow the guidance of AR 70–1 and DoD 5000 series directives and instructions.

d. Both Army S&T and acquisition RDT&E activities may involve improvement beyond just ammunition management, such as making components or systems safer, more reliable, more lethal, more accurate, lighter, and easier to use. They may also increase robustness, extend life, add functional capabilities, and improve functionality. The U.S. Army Combat Capabilities Development Command (DEVCOM) S&T enterprise also contributes related recommendations, from basic and applied research on the feasibility or potential of new and emerging technologies to reduced or optimized life cycle costs of ammunition or their components.

e. TRADOC CBAs identify current and future gaps in combat effectiveness, manufacturing, and logistics effectiveness or efficiency, and they ensure that a Soldier's requirements are defined, integrated, and understood. Progress is defined in terms of a technology's maturity by using the technology readiness level (TRL) metric—which is a standard applied across industry, academia, and Government (see table 4–1 for definitions)—and by assessing military utility based on anticipated benefits. Some technologies are explored and abandoned as insufficiently effective, costly, or without customer.

f. For new, high-value capabilities promising utility and acceptable maturity (usually TRL 6–7, but exceptions occur), the research community works with the TRADOC Centers of Excellence to ensure that capabilities from emerging technologies are transitioned to the Soldier through a life cycle manager product manager (PM) under a JPEO, in coordination with ASA (ALT), as a program of record.

g. If the technology is applied to subcomponents of an end item or is a manufacturing process improvement for an end item, the technology can be incorporated through engineering change proposals or built into the design of new ammunition. If the technology application results in an end item needing type classification, it will require a capabilities document as explained in chapter 2.

h. Acquisition RDT&E funding must be obtained from the DCS, G–8. The technology will be developed in accordance with DoD 5000 series directives, AR 70–1, and other supporting acquisition regulations.

i. Technology and products derived will be developed using the formal systems engineering process as described in the Defense Acquisition Guidebook. The systems engineering process can be tailored and, when properly applied and integrated with a good program and program support management, will identify, design, and test the correct requirements, so the right product is manufactured and eventually fielded.

j. Other key organizations supporting ammunition research and development and evaluation are the Army Fuze Safety Review Board, the Energetics Materials Qualifications Board, Ignition Systems Safety Review Board, Insensitive Ammunition Board, and DoD Explosives Safety Board.

k. A subset of research and development is Ammunition Logistics Research and Development (ALR&D), which is conducted in accordance with the ALR&D strategic plan. It coordinates development efforts between the Joint Services and within Army organizations to improve and accelerate ammunition delivery to the warfighter. The strategic plan establishes a framework and processes to efficiently synchronize and prioritize current and future Army ALR&D efforts. A secondary goal is to better leverage efforts with all Services and DoD agencies and to potentially develop joint, collaborative programs.

l. The ALR&D strategic plan is issued under the authority of the JPEO Armament and Ammunition. The plan is executed by the JPEO Armament and Ammunition, the project director for Joint Services (PDJS), and Ammunition Logistics. An annual call for projects from the ammunition community is conducted under the authority of the ALR&D strategic plan. These projects demonstrate enablers that improve one or more logistics functional areas across the ammunition life cycle as shown in the ammunition logistics chain. The projects include such areas as explosive safety, packaging, surveillance, storage, asset visibility, and distribution.

Table 4–1
Technology readiness levels definitions

Technology readiness level	Description
1. Basic principles observed and reported	Lowest level of technology readiness. Scientific research begins to be translated into applied research and development. Examples include paper studies of a technology's basic properties.
2. Technology concept or application formulated	Invention begins. Once basic principles are observed, practical applications can be invented. The application is speculative and there is no proof or detailed analysis to support the assumption. Examples are still paper studies.
3. Analytical and experimental critical function or characteristic proof of concept	Active research and development is initiated. This includes analytical studies and laboratory studies to physically validate analytical predictions of separate elements of the technology. Examples include components that are not yet integrated or representative and analytical and experimental critical functions or characteristic proofs of concept.
4. Component or breadboard validation in laboratory environment	Basic technology components are integrated to establish that the pieces will work together. This is relatively low fidelity compared to the eventual system. Examples include integrating ad hoc hardware in a laboratory.
5. Component or breadboard validation in relevant environment	Fidelity of the breadboard technology increases significantly. The basic technological components are integrated with reasonably realistic supporting elements so that the technology can be tested in a simulated environment. Examples include high-fidelity laboratory integration of components.
6. System or subsystem model or prototype demonstration in a relevant environment (ground or space)	Representative model or prototype system or actual system that is well beyond the breadboard tested for TRL 5 is tested in a relevant environment. Represents a major step forward in a technology's demonstrated readiness. Examples include testing a prototype in a high-fidelity laboratory environment or in a simulated operational environment.
7. System prototype demonstration in an operational environment	Prototype should be near or at the scale of the planned operational system. Represents a major step forward from TRL 6 and requires demonstration of an actual system prototype in an operational environment, such as an aircraft, vehicle, or space. Examples include testing a prototype in a test bed aircraft.

Table 4–1
Technology readiness levels definitions—Continued

Technology readiness level	Description
8. Actual system completed and flight qualified through test and demonstration	Technology has been proven to work in its final form and under mission conditions. In all cases, this TRL represents the end of true system development. Examples include developmental test and evaluation (T&E) of the system in its intended weapon system to determine if it meets design specifications.
9. Actual system flight proven through successful mission operations	Actual application of the technology in its final form and under mission conditions, such as those encountered in operational T&E. In almost all cases, this is the end of bug fixing of true system development. Examples include using the system under operational mission conditions.

m. Some RDECs and life cycle management commands have interdisciplinary materiel release review boards that review the safety, suitability, and supportability of systems before they are fielded. Depending on the type classification and the maturity of the ammunition system, the systems may be recommended for urgent, training, conditional, or FMRs to materiel release authorities, normally the Joint Munitions Command (JMC) or Army Aviation and Missile Command (AMCOM) life cycle management commanders. Materiel release is governed by AR 700–142 and DA Pam 700–142.

4–2. Cooperative research and development agreements

a. A cooperative research and development agreement (CRDA) is a legal agreement that implements the authority specified in The Stevenson-Wydler Technology Innovation Act of 1980 (Public Law 96–480). CRDAs include agreements between one or more Federal laboratories and one or more non-Federal parties under which the laboratory provides personnel, services, facilities, equipment, or other resources (not including funds) with or without reimbursement. The non-Federal parties provide funds, personnel, services, facilities, equipment, or other resources to conduct specified research or development efforts that are consistent with the mission of the Army research and development activity.

b. CRDAs do not include procurements, grants, or other types of cooperative agreements made under the authority of other legislation. It is DA policy to use domestic technology transfer as an integral part of the research and development effort through a variety of technology transfer mechanisms and to encourage technology transfer from all appropriate research and development activities, consistent with the military mission.

c. The commanders or directors of specified Army laboratories and centers have the responsibility and the authority to license, assign, or waive rights to intellectual property developed by their activity and to support active marketing and assistance by their laboratories or centers, including participation in economic development organizations, contracting with partnership intermediaries, and providing technical assistance to State and local governments and local educational systems.

d. CRDAs are a broad and flexible authority that can be used to spin off the results of Army research and development investment to enhance the ability of the national technology and industrial base (NTIB) to supply products and systems meeting military needs, leverage private sector innovation to aid military research and development, and lower the cost of acquiring military technology that has dual-use civilian application by leveraged cost-sharing of research and development and economies of scale. CRDAs are widely used by Army research laboratories and RDECs to support ammunition RDT&E activities in cooperation with industry, academia, and nonprofit research centers.

e. Commanders and directors of military organizations tasked with initiating and implementing CRDAs should consult with their organization’s office of research and technology applications on procedures specified in AR 70–57.

4–3. International agreements and obligations

a. The U.S. has numerous agreements with our allies for interoperability of armament systems, ranging from large aircraft to small-caliber ammunition. These agreements define technical and logistic attributes, as well as testing methods for armament systems. The most frequent and notable of such agreements are with North Atlantic Treaty Organization nations, but they can also be with the American-British-Canadian-Australian program and bilateral relationships, such as FMS.

b. During the concept phase, programs must account for such agreements, starting with defining the requirements for interoperability within the capability framework. Technical requirements are generally form-, fit-, function-, and safety-related specifications. Logistics requirements generally involve resupply of spares and field test, measurement, and diagnostic equipment and they extend to transportation and storage considerations. The North Atlantic Treaty Organization Standardization Office can provide access to existing agreements and ATEC offers an index of international test operations procedures at https://www.atec.army.mil/.

c. The systems engineering plan (SEP), in particular in the stakeholder requirements definition section and the requirements analysis processes section, needs to consider how the system will or might have to be realized to conform to the international agreements to meet U.S. obligations. When a new technology is not yet subject to international agreements but is fully expected to lead to an item with interoperability implications, the DoD must initiate a negotiations process with the appropriate allies. Examples of such recent technologies that required new agreements are—

(1) Inductively set fuzes.

(2) Counter-improvised explosive device systems.

d. It is the responsibility of each RDEC, within their mission purview, to maintain an awareness of U.S. obligations for international interoperability agreements, to incorporate them into the requirement set for their systems, and to provide support to the JPEO or PM in implementing compliant armament programs.

4–4. International cooperative research, development, and acquisition

a. International cooperative research, development, and acquisition (ICRDA) is designed to improve interoperability for coalition warfare; to leverage scarce program resources; and to obtain the most advanced, state-of-the-art technology from the global technology base and IB. The Army participates in ICRDA ammunition programs and activities with allies and other friendly nations to enhance the security of the U.S. by contributing to one or more of the following objectives—

(1) Improving multinational force compatibility and coalition operations between the Army and armies of allies and other friendly nations by deploying interoperable equipment or integrated logistic support.

(2) Leveraging Army resources through cost sharing and economies of scale obtained through coordinated research, development, acquisition, and logistic support programs.

(3) Avoiding duplication of research and development efforts between the Army, its allies, and other friendly nations.

(4) Leveraging the best technologies available to equip the Army and armies of allied and other friendly nations.

(5) Addressing Army science-, technology-, and materiel development objectives.

(6) Maintaining a strong ammunition IB for the U.S., its allies, and other friendly nations.

(7) Modernizing, strengthening, and expanding existing alliances and friendships by increasing mutual understanding and information exchange in research, development, and acquisition programs and activities.

b. Types of ICRDA include information exchange; personnel exchange; loan, testing, and evaluation of technology or materiel; research and development on foreign or jointly developed materiel to meet U.S. needs; cooperative RDT&E efforts resulting from coproduction arrangements, FMS, or direct commercial sales; cooperative production and follow-on support of defense articles or equipment resulting from a cooperative RDT&E effort; and acquisition of foreign equipment, technology, or logistics support.

c. There are five core objectives of international cooperation in acquisition, technology, and logistics for pursuing ICRDAs—

(1) Operational, to increase military effectiveness through interoperability and partnership with allies and coalition partners.

(2) Economic, to reduce weapons acquisition cost and achieve better buying power by sharing costs and economies of scale; avoiding duplication of development efforts; and achieving the cooperative production or sales of more weapons systems to allies and other friendly nations.

(3) Technical, to access the best defense technology worldwide and help minimize the capabilities gap between allies and coalition partners.

(4) Political, to strengthen alliances and relationships with other friendly countries.

(5) Industrial, to bolster domestic and allied defense IBs.

d. Commanders and directors of military organizations tasked with initiating and implementing ICRDAs should consult with their organization's international point of contact on procedures specified in AR 70–41.

Chapter 5
Test and Evaluation

5–1. Overview

a. Ammunition are thoroughly tested and evaluated to ensure they are safe to use and store and will reliably perform as designed. Ammunition are expended in T&E of munition-support equipment or other equipment, equipment modernization, and equipment software and security upgrades. At a defense-system level, integrated and interoperability testing and evaluation is performed using ammunition at the Service level, at the multi-Service level, and with allied nations.

b. The senior Army official providing oversight on all Army T&E policy and procedural issues is the Army T&E executive within the Office of the Deputy Under Secretary of the Army. Planning for T&E will begin at the earliest stages of the development of user needs and will be further defined during S&T efforts, system requirements refinement, product development, and the acquisition process. System evaluators must participate in the integrated concept team review of the initial requirements documents when a new system or new technology is being considered for development.

(1) The MATDEV will form a T&E working-level integrated product team with the primary objective of developing and documenting the T&E strategy in the test and evaluation master plan (TEMP). Identify ammunition testing planned during system acquisition, including the live fire T&E strategy, in the TEMP. An Army-approved TEMP is required before committing T&E resources. The TEMP is the reference document used by the T&E community to generate detailed T&E plans and to ascertain schedule and resource requirements associated with a given system. The TEMP describes the testing required, the testing personnel, the needed resources, and the requirements for evaluation (see DA Pam 73–1 for TEMP guidance).

(2) Another essential document for T&E planning is the SEP. The program manager will use the SEP to document the ammunition evaluation strategy and overall test or simulation execution strategy of a system or munition for the entire acquisition cycle through fielding. Information in the SEP will support concurrent development of the TEMP. The ammunition SEP focuses on evaluating the munition in the context of mission accomplishment, performance, safety, health hazards, and operational effectiveness, suitability, and survivability.

(3) The ammunition test schedule and review committee (TSARC) provides Army-level centralized management of resources for ammunition operational test (OT), force development test and experimentation, and resource support for developmental test (DT) not otherwise available. The TSARC recommends OT and force development test and experimentation priorities, coordinates troop support, and reviews schedules and resources. The commander of ATEC chairs the TSARC.

(4) The TSARC recommends DCS, G–3 approval of the Five Year Test Program (FYTP). The Army FYTP is a compendium of prioritized outline test plans, approved by DCS, G–3 for a 5-year period commencing with the current fiscal year (FY). The FYTP is published every 6 months, normally in June and December.

5–2. Test and evaluation in support of acquisition and development

a. The primary purpose of ammunition T&E is to support systems development and acquisition. T&E is designed to—

(1) Identify and resolve technical and logistical issues.

(2) Support procurement decision making.

(3) Promote efficiencies.

(4) Help refine requirements and development of effective doctrine, training, tactics, techniques, and procedures.

b. Army T&E will—

(1) Demonstrate the feasibility of conceptual approaches.

(2) Evaluate risks.

(3) Identify alternatives.

(4) Compare and analyze trade-offs toward an iterative process so as to verify the achievement of critical technical parameters and to answer critical operational issues and criteria.

c. Continual evaluation of ammunition informs the combat developers and MATDEVs on a proposed acquisition as the acquisition evolves from a laboratory or experiment to an identified and recognized program or project. Continual evaluation is a strategy that ensures responsible, timely, and effective assessments of the status of a munition's or a system's performance throughout its acquisition process.

d. System evaluation focuses on issues of technical and operational characteristics, performance, and safety as a part of system operational effectiveness, suitability, and survivability. The system evaluation report focuses on the capability of the munition or system to accomplish its mission in its intended environment, and it is provided to the milestone decision authority (MDA) at milestone B, milestone C, and the FRP decision review.

e. Army ammunition T&E programs are structured to integrate all T&E activities as an efficient continuum. Ammunition modeling and simulation (M&S) is an integral part of T&E planning and is used to reduce time, resources, and risks involved relative to the T&E programs. The integrated test and simulation strategy can include separate DT, OT, combined DT and OT, M&S, and other events that generate credible data.

f. Evolutionary ammunition acquisition strategies will be used to define, develop, produce, or deploy an initial, military useful capability (increment 1) based upon proven technology, time-phased requirements, projected threat assessments, and demonstrated manufacturing capabilities. Evolutionary acquisition provides for subsequent development, production, and deployment of increments beyond the initial capability over time (increments 2 and beyond).

g. Changes (modifications and upgrades) to an existing munition or system must be adequately tested and evaluated. A modification is a change to a system that is still in production. An upgrade is a change to a system that is out of production. Such changes can be improvements to system capabilities or fixes to correct deficiencies after the FRP decision review.

h. Nonstandard ammunition programs will establish a T&E working-level integrated product team and have an approved TEMP that will adhere to the policies and procedures for new acquisition T&E programs.

5–3. Reprocurement

a. T&E requirements for reprocurements vary depending on whether the reprocurement is for a nonstandard munition, a Government-controlled technical data package (TDP), an item from a different contractor than the original item contractor, or an item with a significant break in production (more than 2 years).

b. Reprocurements to a current military TDP require only the appropriate DT as determined by the procuring agency.

c. Reprocurement of a nonstandard munition to a current performance specification from the original contractor (make and model) without significant break in production (more than 2 years) normally requires only the appropriate DT, determined by the procuring agency and the combat developer.

d. Reprocurement of a nonstandard munition requires appropriate testing—

(1) If a current performance specification from a contractor is different than the original contractor's performance specification.

(2) If the original contractor intends to field a different model.

(3) If a performance specification is modified or upgraded by the MATDEV or combat developer.

e. Assessments or evaluations (including the safety confirmation; see AR 70–1 and AR 385–10) conducted by the system evaluator will support materiel release actions for new procurements, reprocurements, and system changes.

5–4. Joint Test and Evaluation Program

a. The office of the Under Secretary of Defense (Acquisition, Technology, and Logistics) sponsors the Joint T&E Program to conduct T&Es and provide information required by Congress, OSD, the Commander in Chief, the Joint Staff, and DoD components relative to joint systems. The purpose of the Joint T&E Program is—

(1) To bring two or more Services or other Government agencies together to inform them of system requirements and improvements.

(2) To examine a system's joint interoperability.

(3) To develop and analyze testing methodologies.

(4) To evaluate technical or operational performance under the realistic conditions of interrelated or interacting weapon systems.

b. T&E of multi-Service ammunition acquisition programs are conducted on ammunition or systems being acquired by more than one DoD component. T&E planning, execution, and report writing are done by agreement among the participating services, including sources of funding and designation of the lead service. The lead Service prepares and coordinates a single TEMP, a single test plan, and a single T&E report reflecting system technical performance and operational effectiveness, suitability, and survivability for each Service component.

5–5. Types of tests

a. A DT is a generic phrase encompassing M&S and engineering-type tests used to verify that ammunition design risks are minimized, that safety of the munition or system is certified, that achievement of technical performance is substantiated, and that readiness for operational T&E is certified. A DT generally requires instrumentation and measurements and is normally accomplished by engineers and technicians. It is repeatable, may be environmentally controlled, and covers the complete spectrum of munition or system capabilities. There are multiple types of DTs, including for live fire, logistics demonstration, production qualification, first article, and surveillance (see AR 73–1 for additional information on types of testing).

b. OT is a field test of a munition, system, or item under realistic operational conditions with users who represent those expected to operate and maintain the munition or system when it is fielded or deployed.

c. The early user test encompasses all system tests employing representative user troops during concept and technology development or early in system development and demonstration. The early user test may test a materiel concept, support planning for training and logistics, identify interoperability problems, or identify future testing requirements.

d. The limited user test is any type of RDT&E-funded OT normally conducted during munition or system acquisition other than the initial OT. The limited user test normally addresses a limited number of evaluation issues.

e. The initial OT supports testing the operational effectiveness, suitability, and survivability of a munition or system operated by typical users under realistic conditions (such as combat and representative threat). Initial operational T&E is required before a major defense acquisition program proceeds beyond low-rate initial production.

f. Follow-on OT includes production and deployment testing for munition systems. Follow-on OT is an OT that may be necessary during or after production to refine the estimates made during the initial OT; provide data to evaluate changes; and verify that deficiencies in materiel, training, or concepts have been corrected. The follow-on OT may also provide data to ensure that the munition or system continues to meet operational needs and that it retains its effectiveness in a new environment or against a new threat.

5–6. Evaluation

Independent evaluations and assessments are designed to provide unbiased advice of munition or system development to the Army or DoD decision maker from the combat developer and the MATDEV. The evaluator, who is organizationally separated, will provide unbiased advice thereby ensuring a completely objective perspective. The evaluation process consists of early and frequent assessments of ammunition or system status during development. Early involvement is required to reduce test time and cost through comparative analysis, data sharing, and use of credible data sources.

5–7. Test and evaluation funding

The RDT&E appropriation will fund testing accomplished for a specific munition or system before the production decision. Army procurement authorization and OMA funds are used for testing performed after the production decision. The MATDEV developing system changes will fund testing of those changes using the same appropriation that funds the development itself. The OMA will fund follow-on operational T&E.

Chapter 6
Acquisition, Procurement, and Production

Section I

Acquisition and Procurement

6–1. Army ammunition acquisition

a. The Army approval authority for all warfighting capabilities is the Chief of Staff, Army, and it may be delegated to the Vice Chief of Staff, Army. All warfighting needs in the form of capabilities documents, regardless of acquisition category (ACAT), will be submitted to Headquarters, Department of the Army (HQDA) for validation and approval. The Army Requirements Oversight Council (AROC) advises the Chief of Staff, Army in the assessment and prioritization of capabilities integrated across doctrine, organization, training, materiel, leadership and education, personnel, and facilities. The AROC reviews capabilities documents developed under the JCIDS process. For documents requiring JROC action, the AROC will validate documents (with or without AROC modification) and forward them to the JROC for subsequent review and approval.

b. Once an ammunition capability document is approved, the acquisition responsibility is assigned to the Army acquisition executive (AAE). The AAE is solely responsible for acquisition matters within the DA and is the single decision authority for all Army acquisition matters. The AAE is responsible for approving all requests to initiate new ammunition acquisition programs and will do so only when they are supported by approved capability documents, requisite funding, and program documentation. Each Army acquisition program will have only one designated MDA, designated by duty position to ensure clear lines of responsibility. The AAE will serve as the MDA for ACAT International Cooperation and International Armaments Cooperation programs. Unless delegated to a JPEO or a direct reporting project manager, the AAE will also serve as the MDA for ACAT II and III programs. If MDA authority is assigned to JPEO Armaments and Ammunition or Program Executive Office Missiles and Space, the AAE will also approve the subsequent materiel development management responsibility to a program manager, project manager, or PM who reports to their assigned MDA.

c. The PM is responsible and accountable for the life cycle management of ammunition programs from program initiation through demilitarization and disposal. This will include the demilitarization and disposal of nonstandard ammunition, such as prototypes and experimental ammunition. Ammunition management can be considered for transition to sustainment after the munition item is in adequate supply to fully support user training or fielding.

6–2. Acquisition life cycle

a. The ammunition acquisition process consists of sequential DoD- or Army-level management reviews and decisions. The process begins with a materiel development decision (MDD). At the MDD, the MDA authorizes the program's entry into the acquisition management system at a point that is commensurate with the technical maturity of the proposed energetic solution. The program will proceed through a series of decision reviews that occur in accordance with event- or schedule-based criteria. The reviews are structured in logical phases, separated by major decision points called milestones. Milestones will be accomplished as a program evolves from an approved materiel capability requirement, through development, to an operational and sustainable munition or system in the field.

b. The materiel acquisition process is divided into three distinct activities—

(1) Development.

(2) Production.

(3) Sustainment.

c. The three activities are subdivided into five phases—

(1) The materiel solution analysis phase will begin with the development of an initial capabilities document (ICD) followed by an MDD review. Entry into the acquisition process will begin with the MDD; however, entry into the process does not mean that a new program has been formally initiated.

(2) The technology maturation and risk-reduction phase begins with a milestone A decision. During this phase, the sponsor performs technology maturation activities, builds competitive prototypes, and may perform design activities leading to a preliminary design review and a subsequent capabilities development document for JROC review. The primary objective of this document is to specify the operational

technical performance attributes of the munition or system that will fill the capability gaps identified in the ICD.

(3) The engineering and manufacturing development phase begins with a milestone B decision. Milestone B is the point of formal program initiation for the Army, unless the maturity of the program justifies entry into the Defense Acquisition Management System at a later milestone. Upon completion of this phase, the sponsor delivers a capability production document (CPD).

(a) The primary objective of the CPD is to describe the actual performance of the munition or system that will deliver the required capability.

(b) The JROC objective in approving the CPD is to ensure the system being delivered meets the needs originally defined in the ICD at an affordable cost.

(c) Following approval of the CPD and milestone C, activities commence to attain type classification and materiel release of the item per AR 700–142.

(d) The type classification process ensures the munition is acceptable for Army use prior to spending procurement funds at the FRP decision review.

(e) The materiel release process assures the item is safe, suitable, and supportable and can be released for issue to the field.

(4) In the production and deployment phase, the approved CPD informs the MDA of the decision to enter the production and deployment of the munition or system at milestone C from a requirements perspective.

(5) In the operations and support phase, the program meets materiel availability and operational support performance requirements and is sustained and disposed of cost effectively.

d. The five phases contain six work efforts—

(1) Integrated system design.
(2) System capability.
(3) Manufacturing process demonstration.
(4) Low-rate initial production.
(5) FRP.
(6) Deployment, sustainment, and disposal.

6–3. Procurement

a. The ammunition procurement and production phase follows development of requirements and apportionment of appropriated program funds (through OSD and HQDA) to the operating agency (JPEO Armament and Ammunition) with their assigned project management office. The JPEO validates the continuing need for procurement of each item of ammunition, and the comptroller certifies the funds and releases them to the procurement organization for acquisition in accordance with the Federal Acquisition Regulation.

b. Once requirements have been approved and program funds have been apportioned, documentation to support the ammunition procurement process is initiated. Before procurements can take place, a requirements package must be prepared, with the primary document being the statement of work or the statement of objectives; this document describes the Government's objectives for the effort. Prepared requirements packages are delivered to the contracting officer for the next phase in the process.

c. Once the contracting officer receives the procurement package, the solicitation, evaluation, and award phase begins. In this phase, the Government solicits interest in the proposed effort by publishing a notice in Federal Business Opportunities. Interested parties—including GOCO, Government-owned, Government-operated (GOGO), and private industry producers—can request and receive a copy of the detailed solicitation. Those who receive a copy of the solicitation also receive a required submission date should they wish to submit a proposal. Work to be performed at GOGO plants is established through a scope of work and the issuance of funding via a military interdepartmental purchase request (MIPR), instead of the formal contracting process. The final selection from the proposals the Government receives is not based solely on cost. Proposals are evaluated against best-value criteria, including evaluation of a contractor's technical approach to deliver product, past performance, and staffing to minimize risk to the Government. After the evaluation, a supplier is selected and a contract is awarded.

d. Although ammunition requirements and budgeted programs are expressed as complete rounds, items can be procured as components, via individual contracts, or as complete rounds, via system contracts. When procured as components, the PM breaks the rounds into procurable elements that can be awarded to a GOGO, GOCO, or a private sector supplier. Components of end items are normally shipped

directly to the systems contractor or to the load, assemble, and pack contractor for final end item assembly. System contracts are usually awarded to the private sector, and production may include the use of a mix of GOGO, GOCO, or private sector suppliers. All contracts that procure ammunition or components will include language for disposition of any rejects. Rejects will be shipped to an Army installation unless formally agreed upon between supplier and installation; otherwise, they will remain the responsibility of the supplier for disposition and disposal.

e. Contract types fall into two general categories: fixed-price contracts and cost-reimbursement contracts.

(1) When the Government has a specific, well-defined requirement, it will use a fixed-price contract. This contract type places maximum risk and full responsibility for all costs and resulting profit or loss on the contractor, and it imposes a minimum administrative burden upon the contracting parties. The price remains fixed throughout the contract's life unless the Government changes the item's TDP. The Government's only obligation is to pay the price agreed to at the time of award, regardless of whether the costs to the contractor increase or decrease during performance. When a product has a history of price fluctuations (such as copper), the Government may use a fixed-price contract with an allowance for an economic price adjustment. The fixed-price-with-economic-price-adjustment contract is still a fixed-price contract because the limits and conditions are stated in the contract.

(2) Cost-reimbursement contracts provide for payment of allowable incurred costs to the extent prescribed in the contract. These contracts establish an estimate of total cost to oblige funds and establish a ceiling that contractors may not exceed (except at their own risk) without the approval of the Government contracting officer. Cost-reimbursement contracts are suitable for research and development efforts when uncertainties involved in contract performance do not permit costs to be estimated with sufficient accuracy to use a fixed-price contract.

f. Once production commences, the PM will monitor the production effort using production and delivery schedules and reports. Support comes from the Defense Contract Management Agency, whose professionals serve as information brokers and in-plant representatives for military, Federal, and allied government buying agencies throughout the life of the contract. They monitor contractors' performance, quality assurance, and management systems to ensure that cost, product performance, and delivery schedules comply with the terms and conditions of the contracts. Procurement contracts and production delivery schedules must consider not only direct Army-funded programs but also customer orders from various funding sources for the same ammunition items and components. Production acceptance testing during this phase of the materiel life cycle is conducted in accordance with AR 73–1. Once the items have been accepted by the Government, the items are shipped to the first storage destination, usually a designated continental United States (CONUS) depot, although an overseas location may be required in some instances.

Section II

Production

6–4. Ammunition production base

The ammunition production base is the global manufacturing complex required to produce ammunition metal parts and components, along with propellants and explosives. It also loads, assembles, and packs ammunition components and end items. The production base consists of numerous current and planned producers categorized into three groups: GOGO, GOCO, and contractor-owned, contractor-operated (COCO) facilities (see fig 6–1 for organic IB capabilities).

Figure 6–1. Army's organic industrial base capabilities

6–5. Government-owned, Government-operated

a. Crane Army Ammunition Activity (CAAA) receives, stores, issues (break bulk or container), and produces pyrotechnic candles, flares, naval smoke, and signal devices; C4 extrusion and Navy gun load assemble packs; and metal fabrication of class V and nonclass V components, kits, and devices. CAAA also renovates, disposes, and demilitarizes conventional ammunition stockpile, missile, and related components to meet Joint forces and other DoD contingency requirements. CAAA capabilities also include remote operations, environmental testing, and chemical laboratory and engineering support.

b. McAlester Army ammunition plant (MCAAP) produces, sustains, delivers, recovers, and demilitarizes conventional and missile ammunition to support joint forces worldwide to enable successful U.S. military operations. MCAAP's capabilities also include training support, safety and environmental protection, and research and development support.

c. Pine Bluff Arsenal (PBA) produces smoke and specialized ammunition and has chemical, biological, radiological, and nuclear defense capabilities through manufacturing, storage, and logistics operations. PBA serves as the Joint Services' Center of Industrial and Technical Excellence (CITE) for chemical and biological defensive equipment maintenance, and it produces, tests, certifies, and trains on chemical and biological defense systems. PBA capabilities also include the chemical materiel surveillance program, specialty ammunition production, less-than-lethal ammunition production, and quality assurance and joint-logistics services.

6–6. Government-owned, contractor-operated

The DoD IB currently includes seven GOCO ammunition and component production facilities.

a. Holston Army ammunition plant (HSAAP) manufactures a wide range of melt-cast, cast-cured, pressed, and extruded explosives for the DoD, including research-department explosive, high-melting explosive, insensitive-munitions explosive (IMX–101 and IMX–104), and triaminotrinitrobenzene for use in warheads of bombs, missiles, artillery shells, mortars, and fuzes. HSAAP also produces a number of formulations and specialty chemicals and is capable of large-volume acid recycling and anhydride production. HSAAP is capable of supporting research and development of new explosive formulations—including insensitive ammunition explosives, recrystallization, and purification of explosives from waste organic solvents—and performance testing of explosives.

b. Radford AAP is the primary NTIB producer of nitrocellulose, which is used in nearly all rifle and gun propellants. Radford AAP is also the sole NTIB producer of solventless propellant, which is used in rocket and missile propulsion systems. Other critical capabilities include single- and double-based solvent propellants, nitroglycerin, acid recovery, and strong nitric and sulfuric acid concentration. Major customers are the Army, Marine Corps, Air Force, and Navy. Nitrocellulose is the key component of all single and multibase solvent propellants and solventless propellant used in DoD's small-, medium-, and large-caliber ammunition, mortars, tanks, missiles, and rockets.

c. Lake City AAP provides high-quality, small-caliber ammunition to the warfighter and operates the North American Regional Test Center. Capabilities include producing energetic components, such as percussion and electric primers, pyrotechnics, small-caliber ammunition (5.56 millimeter (mm), 7.62 mm, 0.50 caliber, and 20 mm), demilitarization and disposal of small-caliber AEs, and reliability testing of small-caliber ammunition (5.56 mm, 7.62 mm, 9 mm, 0.22 caliber, 0.45 caliber, and 0.50 caliber). Major customers include the Army, Marine Corps, Air Force, and Navy.

d. Iowa AAP is the only DoD installation capable of high explosive (HE), melt-pour loading of artillery and mortars, making Iowa AAP the DoD's prime source for these products. Iowa AAP produces and delivers component assembly and medium- and large-caliber ammunition items for the DoD. Major customers are the Army, Marine Corps, Air Force, and Navy. Capabilities include tank ammunition (105 mm and 120 mm), HE artillery (155 mm), large-caliber mortars (81 mm and 120 mm), insensitive ammunition explosive loading, smart ammunition mines and scatter mines, missile assembly and missile warheads, rocket-assisted projectiles, detonators, test ranges, medium caliber (40 mm), Spider grenades, demolition charges, mine-clearing line charge, mortars (60 mm, 81 mm, and 120 mm), pressed and cast warheads, and salute rounds (75 mm and 105 mm).

e. Scranton AAP mission includes manufacture of large-caliber metal parts for 105-mm to 155-mm artillery projectiles, the 120-mm family of mortar projectiles, and 5-inch/54 Navy caliber Mark 45 gun projectiles. They are the single source for the M795 155-mm high-fragmentation artillery projectile. Major customers are the Army, Marine Corps, Air Force, and Navy. Capabilities include manufacturing and testing ammunition metal parts and forge pressing and machining producing 60-mm to 8-inch-diameter projectiles.

Note. Quad City Cartridge Case Facility can produce both steel and brass deep draw cartridge cases for all Services, including 105 mm for the Army Stryker, the Air Force's 40-mm gun, and the Navy's 5-inch gun and 155-mm armored gun system. Quad City Cartridge Case Facility is the only producer of steel cartridge cases for the Army Stryker and the Navy 5-inch gun systems. Capabilities include 5 inch, 105 mm, 40 mm, 155 mm, and 57 mm cartridge cases.

Section III

Industrial Base Considerations

6–7. Single point failure program

a. Single point failure (SPF) is defined as an ammunition end item, component, or raw material with only one or no qualified producer. A qualified source is defined as a producer that is identified through TDP source control or qualified product list designation or that has delivered acceptable products per U.S. technology research sources within the last 5 years and has maintained that capability.

b. The SPF program is managed by JPEO Armament and Ammunition and is chaired by the Office of the PDJS. The SPF implementation planning team conducts a process that identifies and evaluates component and end item SPFs for single manager for conventional ammunition (SMCA)-procured conventional ammunition. Only SPFs affecting an end item that is actively being procured in the most recent presidential budget are included in each year's assessment process. The program archives assessments of SPFs for items that are no longer being procured.

c. The purpose of the program is to ensure the JPEO Armament and Ammunition, project managers and project directors are aware of the levels of risk posed to their portfolios by SPFs, allowing for effective management of these items.

(1) The items are identified primarily through drawing source controls in which there is only one approved source or one suggested source that is actually the only qualified source.

(2) SPFs identified by subject matter experts are also included.

(3) The identified SPFs are individually assessed for risk using factors such as number of affected end items and cost-to-replace capability. The results of the assessments then determine which items will be assessed in more detail by the affected project office. Through this process, SPFs assessed as needing more attention are identified as critical SPFs.

6–8. Section 806, Public Law 105–261

a. Under Section 806 of Public Law 105–261, the DoD-designated SMCA will limit a specific procurement of conventional ammunition includes missiles (guided and unguided), torpedoes, and sea mines to sources within the NTIB when necessary to maintain NTIB capabilities. This is in accordance with 10 USC 2304(c)(3) for any case in which the SMCA determines that such limitation is necessary to maintain a facility, producer, manufacturer, or other supplier to furnish an essential item of ammunition or ammunition component in cases of national emergency or to achieve industrial mobilization.

b. To implement this requirement, the Defense Federal Acquisition Regulation Supplement (DFARS) 207.103 instructs departments and agencies to submit their conventional ammunition acquisition plans to JPEO Armament and Ammunition (that is, the SMCA executor), and it will not proceed with procurement until written concurrence is received.

c. The JPEO Armament and Ammunition PDJS manages this process. The PDJS reviews each acquisition plan for impact to the NTIB at the end item, component, and subcomponent levels. Any high risks are communicated to the requesting agency or department with recommendations for mitigation, if necessary. A Section 806 analysis is written based on these findings along with a recommendation to JPEO Armament and Ammunition for concurrence or nonconcurrence. Concurrence results in a signed Section 806 Determination, which is a memorandum certifying that the SMCA has analyzed the procurement and it is consistent with retaining the NTIB.

6–9. Armament Retooling and Manufacturing Support Program

a. In the ARMS Act of 1992, Congress directed the Secretary of the Army under 10 USC Chapter 764 to establish a program to be known as the ARMS Initiative Program. The Secretary of the Army delegated the ARMS Initiative Program to JPEO Armament and Ammunition and the SMCA Executor, who then assigned it to the PDJS, who retains full responsibility and authority for executing the ARMS Initiative Program. JPEO Armament and Ammunition (specifically PDJS) established the ARMS Team, which includes members from PDJS and JMC, to provide management and oversight of the ARMS Initiative Program at GOCO installations.

b. The ARMS Initiative Program encourages the use of unused or partially used portions of GOCO ammunition installations by commercial entities and Government organizations, thus compensating for reduced production volumes and installation closures that would negatively impact the local economies.

The facility operating contractor at each GOCO markets the unused facilities as appropriate for each facility.

c. The ARMS Team invests PAA funds to repair, refurbish, and upgrade eligible facilities to enable each GOCO entity to make those facilities available to third parties through a tenant-use agreement between the contractor and the third-party tenant. The Government is not a party to the tenant-use agreement and does not deal directly with the tenants. Consideration for the use of the facilities (tenant revenue) generated at each GOCO remains at that GOCO and is used in a variety of ways under the responsibility of the ARMS team to create opportunities to generate additional ARMS Initiative Program revenue and to lower the total sustainment cost for the GOCO, thus lowering the total cost of ammunition and supporting the local economy at each facility. Government organizations or commercial entities interested in participating in the ARMS Initiative Program should contact the PDJS ARMS team within JPEO Armament and Ammunition.

6–10. Center for Industrial Technical Excellence

a. In accordance with 10 USC 2474, the Secretary of the Army is required to designate each major organic depot maintenance activity as a CITE in one or more specific technical competencies required for core capabilities. CITE designated depots, plants, and arsenals are authorized to enter into public-private partnerships that may provide for—

(1) Employees of the CITE to perform work under contract related to the core competencies of the CITE.

(2) Private industry or other non-DoD entities to perform work under contract related to the core competencies of the CITE.

(3) Private industry or other non-DoD entities to use, for any length of time consistent with DoD needs, any facilities or equipment not fully used for DoD work.

b. Secretary of the Army-approved maintenance depot CITEs include Anniston Army Depot, Alabama; Corpus Christi Army Depot, Texas; Letterkenny Army Depot, Pennsylvania; Red River Army Depot, Texas; Tobyhanna Army Depot, Pennsylvania; Sierra Army Depot, California; and Rock Island Arsenal—Joint Manufacturing Technology Center, Illinois. Two ammunition facilities are CITE certified but neither is for ammunition-specific areas. PBA is designated as the CITE for Chemical and Biological Defense Equipment and Tooele Army Depot as the CITE for ammunition peculiar equipment (APE) production.

c. Ammunition depots, plants, or arsenals proposing CITE certification will submit requests with detailed justification through command channels to Commanding General, AMC; ASA (ALT); and Secretary of the Army for approval.

Chapter 7
Stockpile Sustainment

Section I

Stockpile Reliability Program

7–1. Overview

Stockpile Reliability Program (SRP) sustainment includes the processes and procedures essential to ensuring that warfighters receive reliable and safe ammunition at all times. It is also critical to the safe and secure functioning of our DoD strategic industrial ammunition base. Stockpile sustainment includes the ammunition stockpile reliability (including surveillance) and maintenance programs managed and executed by the DA civilian, military, and contractor ammunition workforce. The APE Program is a critical component to ammunition management and stockpile sustainment.

7–2. Ammunition Stockpile Reliability Program

a. The purpose of the Ammunition Stockpile Reliability Program (ASRP), per AR 702–6, is to provide a means of evaluating the operational readiness, serviceability, safety, reliability, and performance of ammunition in the stockpile or deployed for use in combat or training and to provide information necessary for decision making in the overall logistic management of ammunition retention, maintenance, modification, or replacement.

b. The DCS, G–4 is responsible for oversight and funding the ASRP. JMC is responsible for execution, which is regulated by AR 702–6. The ASRP provides cradle-to-grave responsibilities for monitoring the performance, reliability, and safety characteristics of ammunition items and class V components including demilitarization. The ASRP consists of an ammunition surveillance program, a stockpile function test program, and a stockpile laboratory test program. The ammunition surveillance element of the ASRP is executed by career program 20 quality assurance specialist, ammunition surveillance (QASAS) personnel with supplementation from military ammunition specialists, and it applies to conventional and chemical ammunition, small and large rockets, guided missiles, and associated materiel (see DA Pam 742–1 for detailed procedures for preparing samples for function testing and general guidelines).

c. For each ammunition item or grouping of similar ammunition items of the ASRP, a representative sampling scheme is developed. Samples are selected and subjected to controlled laboratory tests, functional tests, stockpile reliability test firings, and visual inspections to determine the reliability and condition of the current stockpile and to identify trends that may affect the overall quality. Timely identification of undesirable trends allows the ammunition manager to minimize the cost of retention of unreliable and unsafe stocks, to schedule required maintenance actions, or to establish removal or replacement intervals or schedule for priority of issue and use.

7–3. Missile Stockpile Reliability Program

a. Missiles are exposed to a wide range of handling and storage environments. Due to their higher sensitivity to the elements, they require a higher degree of care and maintenance. Stockpile reliability testing determines the continued performance, reliability, and safety of these fielded inventories. The goal of the Missile Stockpile Reliability Program (MSRP) is to achieve an effective SRP while minimizing cost, sample size, and impact to inventory. AR 702–6 requires AMC to notify DCS, G–4 of any recommendation for shelf life nonextension that will significantly impact the Army's inventory of a weapon system.

b. Missile shelf life is the time during which a tactical missile will remain safe for handling and operations, meets acceptable reliability levels, and performs as expected in tactical engagements.

(1) Early in the development of a missile system, a shelf life requirement for the system is determined. This is coordinated with TRADOC, included in the request for proposal, and negotiated with the prime contractor. A cost trade-off analysis is also conducted at this time. While the optimal solution is a missile with a lengthy or indefinite shelf life, this can be cost prohibitive.

(2) During system development, test and analysis is conducted to verify that the design meets the shelf life requirement. Accelerated life testing, qualification test inferences, parts and materiel analysis, and similarity testing are used to support shelf life verification.

(3) After fielding, the MSRP justifies any further shelf life extensions. The MSRP has been used where applicable and, on a case-by-case basis, to extend shelf life of some missile systems by as much as 25 years. If the MSRP cannot support shelf life extensions, expired missiles are placed in condition code (CC) J (suspended (in stock)) and are restricted from further issue or use. Shelf life is calculated in the field using the missile lot number.

(4) When and where applicable, missiles approaching shelf life expiration should be transferred to training accounts for training expenditure rather than placement in demilitarization or maintenance status. Additionally, missiles approaching shelf life expiration may be used to support critical RDT&E testing. Requests for transfer of missiles approaching shelf life expiration to training accounts should be routed through command channels to the specific missile item program office at AMCOM.

(5) The MSRP provides the basis for actions to achieve the longest missile life possible. This includes identification and removal of failing hardware and lower-reliability subpopulations from the go-to-war stocks, identification of best storage and maintenance practices, adjusted engagement or deployment tactics to offset degradation trends, development of logistic solutions to minimize environmental impacts and to best position highest reliability stocks, and proactive identification of rework or replacement requirements to support timely program management decisions.

(6) The MSRP plans are customized to each missile system to account for reliability requirement, unit cost, testability, production quantity, reparability, and projected life cycle. The plan identifies the methodology and quantities required for testing based on minimum acceptable statistical limits and confidence levels (risk). In accordance with AR 700–142, the MSRP plan is required to be published prior to FMR. In general, MSRPs include only a sufficient amount of testing every 2 to 3 years to accumulate enough data to support a shelf life extension decision. Reduced confidence levels may be used where appropriate,

sometimes as low as 70 percent. Sample requirements are consolidated when test results of similar models can be inferred to both inventories. Nondestructive hardware in-the-loop testing is also often used to substitute for a destructive component or flight testing where appropriate. MSRP plans are regularly reviewed and updated during the life of the system to take into account the evolving life cycle of the system (tactical, training use only, or obsolete) and any knowledge gained from cumulative results of data collected.

(7) Field firing data are used to support missile shelf life extension decisions, and AR 700–19 requires it to be submitted on each missile firing attempt. Chapter 10 of this pamphlet contains information for units to submit missile firing data reports (MFDRs). The DEVCOM Aviation and Missile Center reviews, scores, and analyzes MFDRs for trends associated to manufacturing strata, age, and firing scenarios. This data is also used to support assessments of malfunction reports for proper disposition. MFDR analysis is an essential element of the shelf life decision, and it can reduce the MSRP testing requirements and costs to the Army. Missiles fired in training, however, are often not wartime assets, and data are often insufficient to support root-cause analysis of failures. In light of this, MSRP flight test firings from static test stands are often required. These tests are designed to mitigate operator-equipment error since Soldier-platform involvement can introduce errors, resulting in lost data and lost test assets. They are also designed to fully test mission capabilities and can allow for testing at minimum or maximum temperature, ranges, acquisition modes, and offset angles, among other things, where degradation trends are often first identified. This type of testing environment also allows for higher fidelity data collection using full data collection suites (for example, high speed cameras and prelaunch data-links) and the ability to abort launch to save hardware for failure analysis. This can be a more cost effective testing method since firing with military units may increase test costs due to additional coordination, training, equipment checkout, maintenance, fuel, manpower costs, and range time. Due to high operational demands, it may also be difficult to find available units to meet test-range schedules. Soldiers are preferred for supporting flight tests when both the required data can be properly collected and training value can be obtained. Information from MFDRs may be used from RDT&E testing to enhance the MSRP.

Section II

Ammunition Compliance

7–4. Ammunition surveillance

a. The ammunition surveillance program is among the most critical aspects of ammunition management. The surveillance program is designed to ensure that the ammunition stockpile is safe to use and store and will function as designed. This section provides a basic understanding of the critical tenants of an ammunition surveillance program. The surveillance program is established by AR 702–6 and AR 740–1 (see DA Pam 742–1 for detailed ammunition surveillance procedures). The objectives of an ammunition surveillance program are to evaluate fielded ammunition to detect items with increased rates of deterioration and to—

(1) Determine serviceability and identify conditions.

(2) Correct or control storage conditions and handling methods affecting the same.

(3) Detect dangerous conditions increasing the hazards of storage or use.

(4) Suspend the use of ammunition of suspect condition pending further evaluation.

(5) Segregate and report ammunition found to be unserviceable.

b. The surveillance procedures in DA Pam 742–1 and the missile system supply bulletins (SBs) prescribe inspection types, frequencies, sample sizes, and inspection standards. The Munitions History Program (MHP) prescribes conventional munition-specific inspection standards. Ammunition defects are classified as critical, major, and minor or incidental with lot acceptance or rejection criteria specified for each, including—

(1) The observation, inspection, investigation, test, study, and classification of ammunition, ammunition components, and explosives in storage, movement, and use with respect to degree of serviceability and rate of deterioration, including—

(a) Initial receipt inspections for conformance.

(b) Cyclical (periodic) inspections for deterioration, CL for in-use ammunition, storage monitoring for humidity-controlled or condemned ammunition.

(c) In-process inspections and audits performed during ammunition maintenance or renovation.

(2) The inspection of containers and buildings in which they are stored.

(3) The inspection of facilities and methods used in handling, storing, shipping, manufacturing, maintaining, reconditioning, renovating, salvaging, and destroying ammunition to ensure compliance with applicable specifications and safety criteria per DA Pam 385–64.

(4) The preparation and maintenance of all reports and records required for the activities listed in paragraphs *7–4a* and *7–4b*.

c. The commander of an installation, activity, or command with an ammunition mission is responsible for ensuring all ammunition is subjected to class-V-specific surveillance functions. Nonstandard ammunition will be subject to ammunition surveillance for safety in storage.

d. A DA Civilian who is designated as a QASAS executes the ammunition surveillance function by inspection. The AMC is responsible for fielding each trained QASAS through the career program 20 Ammunition Civilian Career Management Office.

(1) A command designated as a senior QASAS will be responsible for the ammunition surveillance program at each ammunition storage area.

(2) Ammunition warrant officers (career field 890A) and ammunition specialists (military occupational specialty 89B), in the grade of staff sergeant or higher, or designated civilian technicians (including local nationals at OCONUS locations) who have been trained or certified by the Defense Ammunition Center (DAC) may supplement and assist the QASAS in select ammunition surveillance functions.

e. Material defects sufficient to cause lot rejection are reported for disposition on DA Form 2415 (Ammunition Condition Report). It provides the data necessary for the control and management of serviceable, unserviceable, and permanently suspended items (see para 7–19 for preparation and submission flow). The form is available on both the MHP and the Army Publishing Directorate website at https://armypubs.army.mil/.

7–5. User ammunition inspections

Do not confuse inspections conducted under an ammunition surveillance program with user inspections. Applicable technical manuals (TMs) and prescribed inspections that are to be conducted by users prior to, during, and after use. Absent specific instructions in TMs and field manuals (FM), users detecting nonstandard conditions during such activities will normally contact their supporting ammunition support formation to arrange turn-in of the defective items.

7–6. Ammunition lot history

a. Ammunition is produced in batches or lots and is associated with a lot number. Maintaining lot integrity, identity, and history is essential to ammunition surveillance and explosives safety. A complete lot history provides the ammunition surveillance program and ammunition managers with a wealth of information on those particular ammunition in support of safety, performance, and reliability. Maintaining an accurate lot history also enables the ammunition management community to make otherwise subjective calls, such as CC changes, for the entire lot based on the performance of a single item in that lot. Several enablers support a strong ammunition lot history program.

b. The MHP is the official DCS, G–4 automated database used for class V items, lots, and serial numbers (SNs), including AMCOM life cycle management command-managed items that are suspended or restricted. MHP is Internet enabled and automates most of the routine reporting and recordkeeping requirements of an ammunition surveillance program. Automated records include ammunition data cards, depot surveillance records (DSRs), and ammunition condition reports (ACRs) (see para 13–11 and the MHP website at https://mhp.redstone.army.mil/ for additional details on MHP).

7–7. Ammunition information notices and missile information notices

Ammunition information notices (AINs) and missile information notices (MINs) are critical tools in supporting ammunition safety and surveillance. AINs and MINs are used to quickly disseminate critical safety, performance, and surveillance and use information to any organization storing or using the applicable munition worldwide. Surveillance organizations are responsible for disseminating and implementing AIN and MIN guidance, as appropriate. To be added to the Army AIN, notice of ammunition reclassification (NAR), and organizational history files distribution list, email usarmy.ria.jmc.mbx.amsjm-qas@mail.mil.

7–8. Malfunctions

Response to and reporting of malfunctions involving ammunition are prescribed by AR 75–1. For malfunctions causing injury or significant damage, mishap reporting and investigation procedures are also

specified in DA Pam 385–40. Malfunctions include hang fires, misfires, duds, abnormal functioning, and premature functioning of explosive ammunition items under normal handling, maintenance, storage, transportation, and tactical deployment. Malfunctions can result in temporarily or permanently suspending the use of the ammunition lot involved. Once a malfunction is reported, perform an investigation to determine the root cause. The lots are suspended until a decision on the disposition of the affected stocks is made. From an ASRP standpoint, the history of malfunctions for a type of munition helps to inform the respective engineering centers as to the efficacy of current designs, specifications, environmental limits, and inspection criteria.

7–9. Malfunction investigations

Malfunctions involving AEs are conducted in accordance with AR 75–1. Key responsibilities in the event of a malfunction include—

a. The QASAS or logistics assistance representative (LAR) is responsible for gathering data necessary for all reported malfunctions and for submitting a preliminary report.

(1) Make preliminary reports for a class A and class B malfunction or, when a critical defect was found, by the fastest means possible.

(2) Make preliminary reports for a class C malfunction using the MHP.

b. The activity commander's, unit commander's, or senior person in charge's unit responsibilities of the firing unit are to—

(1) Immediately cease firing suspected ammunition and notify range control or equivalent.

(2) Immediately contact one or more of the following: the local ammunition officer, installation QASAS, supporting ammunition LAR, or installation safety officer. The nearest EOD unit will be notified if the ammunition is considered hazardous.

(3) Relate all available information on the malfunction.

(4) Secure the malfunction site to prevent the removal or relocation of ammunition, ammunition components, weapons, weapons debris, and ammunition packaging until an investigation is completed and authorization for removal is granted by the investigative lead.

c. The responsibilities of the supporting installation are to ensure an effective notification procedure is in place and to support the responding QASAS, LAR, or EOD personnel as required to safely and securely conduct the malfunction response and investigation mission. This could include, but is not limited to, assistance in notifications, fire and emergency response, security to preserve the integrity of the malfunction or mishap site, and safety and logistics support.

d. The responsibilities of the Army Combat Readiness Center are to direct and oversee a mishap investigation in accordance with DA Pam 385–40 when the malfunction involves major weapon system damage, personnel injury, or work stoppage of 72 hours or more.

7–10. Explosives safety and ammunition logistics operations surveillance

a. Safety and logistics functions, including area, conveyance, major training area or range, water port inspections, and shipping document approval, are the responsibility of QASAS and safety personnel. Surveillance personnel will coordinate inspection and safety procedures with the safety director or manager whose functions include inspecting buildings and areas in which AEs are stored.

b. Where there are no QASAS or surveillance personnel assigned to the organization having responsibility for these functions, execute an installation services support agreement or a memorandum of agreement with the organization providing QASAS and surveillance personnel to perform these functions in accordance with AR 702–12. Primary areas of concern include safety while conducting operations and ammunition readiness and compliance with standard operating procedures (SOPs).

7–11. Stockpile function test and lab test programs

a. Conventional ammunition. For conventional ammunition, the ASRP is designed to continually measure stockpile performance and reliability so ammunition available for issue is safe, reliable, and able to perform its intended mission. Ammunition representing the worldwide stockpile of different ammunition types are periodically selected and funded for centralized function testing by JMC. Ammunition stockpile test procedures, inspection criteria, and the ASRP stockpile assessments are available in MHP. Function tests and laboratory tests are performed to assess the current state of the stockpile. A summary state of the stockpile report depicting assessments for all munition classes is published annually and is also available from the JMC.

b. Guided missiles and large rockets. Army guided missile and large rocket (GMLR) test programs are funded, developed, and managed by DEVCOM Aviation and Missile Center. The test plans are coordinated with system program managers. The stockpile test program consists of flight testing and component testing of the various strata (lots, manufacturer, storage location, and deployment history). Comprehensive reports for each system, summarizing the cumulative results of SRP tests and analyses, are published by DEVCOM Aviation and Missile Center. The objectives of these programs are to—

(1) Provide maximum assurance that GMLRs continue to meet user-established explosives safety and reliability requirements for continued storage, handling, and use.

(2) Identify and track reliability trends for GMLR items at the system and component level.

(3) Predict, establish, and validate shelf life for fielded assets.

(4) Accumulate and analyze data and findings from inspections and test to identify need for priority of issue, restrictions, suspension from issue or use, and disposal.

(5) Provide input for design improvements and logistics decisions for use in training, repair, and replacement.

c. Propellant test programs. The ASRP for propellant contains two distinct stockpile laboratory test programs.

(1) *Propellant Stability Program.* The Propellant Stability Program (PSP) monitors and analyzes stabilizer levels and stability trends of Army-managed propellant lots to identify potentially unstable propellants in sufficient time to safely remove them from the stockpile through use or demilitarization. The JMC Ammunition Surveillance Division centrally administers the PSP. The PSP consists of two subprograms.

(a) Master Propellant Program. Within 6 months after Government acceptance, a 5-pound sample of each newly produced lot of bulk propellant is sent to the Army Propellant Surveillance Laboratory at DEVCOM or as specified in the contract. Samples are monitored throughout the life of the propellant, and master sample stabilizer trends are compared with field-stored propellant stabilizer trends.

(b) Stockpile Propellant Program. This program tests fielded Army propellant assets to assure that environmental effects are accounted for in determining their safe stored condition. Test frequencies vary depending on propellant type, lot history, and chemical stability. The Army Propellant Surveillance Laboratory at DEVCOM compares field sample test results with master sample test results. The Stockpile Propellant Program includes bulk propellant, bulk-packed components, and separate loading charges.

(2) *Propellant Reassessment Program.* The Propellant Reassessment Program involves the T&E of stored bulk propellant to determine its functional serviceability, and it provides the basis for issuing propellant-loading authorizations for ammunition assembly. The functional serviceability will be determined by a laboratory reassessment test, a ballistic test, or a combination of both.

Section III

Clearance and Conventional Ammunition Maintenance

7–12. Ammunition functional clearances

The ammunition surveillance program clears (for example, approves shipping documents) ammunition for issue or special uses as follows:

a. Clearance for shipment or issue. Before ammunition is shipped to another installation or issued to a user, the records for the nominated lot will be—

(1) Screened by the local QASAS or equivalent for compliance with all inspection requirements of DA Pam 742–1.

(2) Checked for applicable suspensions or restrictions.

(3) Checked for suitability for intended purpose, when specified.

(4) Determined whether it is suitable to the transport packaging condition. If suitability against any of these screening elements is in doubt, conduct additional inspections or select an alternate lot.

b. Overhead fire clearances. JMC will review all appropriate records to assess the suitability of ammunition nominated for firing overhead of troops during training when such is permitted by AR 385–63 or DA Pam 385–63. The results of these assessments, whether pass or fail, are reported to the ammunition community in overhead fire supplement messages and are recorded in TB 9–1300–385.

c. Other functional clearances. JMC conducts similar functional clearances for ammunition lots nominated for long-term storage aboard prepositioned maritime vessels or for FMS or other foreign assistance programs.

7–13. Technical assistance

QASAS also provides technical ammunition inspection and assistance to using units during CL and OPL inspections or as otherwise coordinated under AR 702–12, the QASAS Program, or ASCC regulations. Units should coordinate to have the CL and OPL inspected every 12 months.

7–14. Conventional ammunition maintenance

a. Unlike other commodities, maintenance requirements for ammunition cannot be determined on the basis of predetermined yardsticks, such as flying hours, miles driven, or hours of operation. The degree of conventional ammunition maintenance depends on the type of deficiencies involved. The degree can range from normal preservation and packaging activities (for example, derusting and repainting), usually performed at the retail or user level, to more hazardous operations of disassembly and reassembly with serviceable components, modification, and conversion, normally done at the wholesale level. A lesser degree of maintenance is normally required for the ammunition to be capable of withstanding long-term storage without degradation. More extensive maintenance may be required to correct deficiencies affecting safety and reliability of the item which could cause malfunctions resulting in death, serious injury, extensive property damage, or loss of expensive weapons and equipment.

b. Maintenance at the user level is normally limited to preservation and packaging (such as derusting and spot-painting) for functional training requirements or limited repacking of small quantities. More extensive maintenance or renovation is performed in theater at theater storage areas (TSAs) and in CONUS ammunition depots, arsenals, and plants. OCONUS TSAs and depots may be equipped to perform various types of maintenance. In some cases, the cost of maintaining and operating forward deployed test and repair equipment is cost prohibitive, generating the reoccurring need to periodically retrograde items to CONUS for maintenance purposes.

c. The chief of ordnance established the APE Program to provide specialized equipment for use in the maintenance, renovation, preservation, packaging, demilitarization, and inspection of conventional ammunition. APE was associated with the equipment as the equipment is peculiar to ammunition.

(1) The objective of the APE Program is to provide a worldwide, centralized source of standard, modern, safe, reliable, and environmentally acceptable equipment for ammunition operations and to prevent damage to ammunition or related facilities, as well as to prevent injury to personnel as a result of unauthorized or improper equipment design, use, or modification.

(2) APE is used worldwide with most of the equipment found in the organic ammunition IB (GOGO and GOCO). The equipment supports ammunition maintenance, renovation, inspection, surveillance, and demilitarization operations. The remaining APE is at retail sites, for example, ammunition supply points (ASPs) at Army posts, camps, and stations and in deployed environments. APE is also used by other military Services and at COCO ammunition facilities. All APE passes a rigorous safety review based on requirements in Military Standard (MIL–STD) 882E to optimize safety while APE is used for potentially hazardous ammunition operations.

(3) The APE Program is centrally managed by the Ammunition and Logistics Readiness Center at JMC, Rock Island, Illinois. Tooele Army Depot, Tooele, Utah, designs, manufactures, and maintains APE and has been designated the CITE, as well as the national inventory control point (NICP) for APE. APE is provided to Army customers on a loan basis and to other customers on a reimbursable basis.

(4) Policies and procedures for the program are in AR 700–20. APE is catalogued in TM 43–0001–47 data sheets. Potential customers with common access cards (CACs) may view the APE catalog at https://prod.jmc.army.mil/apems3_catalog/.

(5) See AR 700–20 for APE requirements and requisitioning.

7–15. Records and reports

a. This paragraph describes how to prepare, use, maintain, and distribute records and reports on the following Army materiel:

(1) Toxic chemical ammunition materiel.

(2) Conventional ammunition.

(3) Class V items of GMLRs.

(4) APE.

b. General and special instructions are given for the following forms for the items listed in *paragraph 7–15a*:

(1) DA Form 2407 (Maintenance Request) and DA Form 2407–1 (Maintenance Request Continuation Sheet).
(2) DA Form 2415 (Ammunition Condition Report).
(3) DA Form 2401 (Organization Control Record for Equipment).
(4) DA Form 2408–9 (Equipment Control Record).

7–16. Special instructions

These instructions do not apply to ammunition malfunctions—

a. Malfunctions are reported in accordance with AR 75–1.

b. Mishap and incidents with chemical warfare ammunition are reported in accordance with AR 50–6 and command directives.

7–17. General instructions

a. Responsibility for submission.

(1) Commanding officers of organizations using, handling, or storing ammunition and GMLRs are required to prepare and submit timely ammunition reports through command channels to DCS, G–4 (DALO–SPM); DCS, G–3 AMCOM; JPEO Armament and Ammunition; Program Executive Office Missiles and Space; and JMC.

(2) For GMLRs, units will submit DA Form 2407 (Maintenance Request) for defective components (see DA Pam 750–8 instructions for completion of DA Form 2407 (Maintenance Request), DA Form 2401 (Organization Control Record for Equipment), and DA Form 2408–9 (Equipment Control Record)). In addition, DA Form 2415 (Ammunition Condition Report) may be required to comply with unserviceable CC reporting.

b. Classification. Reports are classified by the latest security regulations (see AR 380–5 and AR 380–86 for additional guidance).

c. Acknowledgment of receipt and replies.

(1) Except as noted in paragraph 7–17c(2), a final reply is given by the appropriate command. Replies show the corrective action taken and direct action to be taken, or they state that no action is necessary. Replies also give disposition of defective items.

(2) Replies are not given for reports on unserviceable new materiel for which blanket shipping orders have been issued to return the item to the vendor.

d. Forms. The Navy, Air Force, and Defense Nuclear Agency organizations that use Army-designed or manufactured materiel and related instructions may send reports on their own Service's forms.

e. Exhibits.

(1) Exhibits are samples of an item with a discrepancy that is chosen to support materiel reports. The use of photographs, drawings, and supporting data in place of actual materiel exhibits is encouraged.

(2) Tag exhibits held for disposition instructions. For ammunition lots, use Department of Defense (DD) Form 1575 (Suspended Tag—Materiel), DD Form 1576 (Test/Modification Tag—Materiel), or DD Form 1577 (Unserviceable (Condemned) Tag—Materiel), as required.

(3) Mark the forms to identify the reported item and the associated lot. Keep them in order so they do not get lost or mixed up. If shipping instructions are received to return an exhibit, the shipping papers and exhibits must be marked as follows: Exhibit for MIF#/DIF#. For conventional ammunition, mark the tagged exhibits for the malfunction investigation file or deficiency investigation file, whichever is funded for investigation. Defective items identified in an ACR are not funded for investigation.

(4) Package exhibits carefully for shipment to prevent further damage.

(5) Take equipment apart to procure an exhibit only when directed and when that action is within the normal maintenance level.

7–18. The Ammunition Condition Report

DA Form 2415 (Ammunition Condition Report) provides management information on unserviceable and permanently suspended ammunition items. The instructions for use, completion, and distribution of DA Form 2415 are outlined in DA Pam 750–8.

a. Use DA Form 2415 (Ammunition Condition Report) to report unserviceable ammunition. It may be initiated as a result of, but not limited to, the following actions. DA Form 2415 (Ammunition Condition Report) submittal is also contingent on satisfying conditions as established by the appropriate command.

(1) Ammunition inspection, including periodic inspection, receipt inspection, safety-in-storage inspection, and special inspection.

(2) Permanent suspense assignment by owning service.

(3) As specifically requested by higher headquarters.

b. DA Form 2415 (Ammunition Condition Report) is prepared as follows:

(1) For conventional ammunition and missile items, submit all data through https://mhp.redstone.army.mil/.

(2) Complete DA Form 2415 (Ammunition Condition Report) for each owner of assets and each line being reported. More than one lot number or multiple SNs with the same national stock number (NSN) may be reported on the same ACR.

(3) For conventional ammunition and missile items submitted through https://mhp.redstone.army.mil/, include a narrative and attach a portable document format file to an email.

c. The JMC and AMCOM provide disposition instructions by email to the ACR originator within 45 days of receipt of the ACR.

7–19. Ammunition condition report submission flow and preparation

a. Do not use ACRs to report—

(1) Bulk packaging materiel (Federal Supply Classification (FSC) 8140) (see AR 700–19).

(2) Ammunition malfunctions (see AR 75–1).

(3) SMCA items with expired shelf life or extended life. Report these by email to the JMC item manager at usarmy.ria.jmc.mbx.amsjm-pdr-cadpad@mail.mil.

(4) Lots containing critical defectives are locally suspended, assigned CC J, and reported to the appropriate major subordinate command (MSC) by the most expeditious means.

(5) Temporarily suspended items. Report these to the appropriate MSC as outlined in DA Pam 742–1.

(6) Equipment improvement recommendations; use Standard Form (SF) 368 (Product Quality Deficiency Report (PQDR)) to report equipment improvement recommendations. All Army materiel, including ammunition, is subject to quality deficiency reporting. The purpose of submitting SF 368 (Product Quality Deficiency Report (PQDR)) is to report conditions that are the result of below-standard quality workmanship or materiel deficiencies. Find reporting instructions for SF 368 (Product Quality Deficiency Report (PQDR)) in AR 702–7–1, DA Pam 738–751, and DA Pam 750–8.

(7) Incorrect manuals, drawings, forms, and specifications. Use DA Form 2028 (Recommended Changes to Publication and Blank Forms) for these.

(8) Serviceable, obsolete items no longer needed. Report these to the appropriate NICP.

(9) Items being tested.

(10) Operational Stinger and Javelin guided missiles without battery coolant units (BCUs).

(11) Quality deficiency reports.

(12) Marine Corps ammunition placed in CC H by specific NAR. Such ammunition may be disposed of regardless of dollar value; however, on-hand quantities must be reported in accordance with NAVSUP P801/TWO24–AA–ORD–010.

(13) Industrial- and production-owned class V items (for conventional ammunition).

(14) ACRs from wholesale storage sites on Army-owned, class V items (for conventional ammunition).

b. Send all reports and ACRs through proper command channels.

c. Report, as required to the appropriate NICP, nonsingular, managed, conventional ammunition items with expired shelf life, exceeded storage limits, or cartridge actuated devices (CADs) and propellant actuated devices (PADs).

7–20. Mobile ammunition renovation, inspection, and demilitarization

a. The Mobile Ammunition Renovation, Inspection, and Demilitarization (MARID) Program is a collaborative effort between JMC and MCAAP to address ammunition stockpile reliability issues deemed beyond the scope or capability of a unit or installation to perform. MARID's mission is to provide a rapid, worldwide-deployable team capable of performing a wide variety of services required to retain the overall quality and reliability of the ammunition stockpile and to perform demilitarization as required.

b. A full-time coordinator at MCAAP who plans, coordinates, schedules, budgets, resources, and executes ammunition operations worldwide manages the program. The coordinator is based at MCAAP and has access to employees with diverse ammunition competencies from throughout the enterprise.

c. The program is prepared with equipment to support various requirements including materiel handling equipment, tractor-trailers (box, flatbeds, and lowboys), dromedaries, shipping containers, portable light sets, scales, loading ramps, welding and cutting capability, generators, mobile flash furnace (with air-abatement system), and a mobile metal compactor.

7–21. Procedures for requesting team support

a. Units should request MARID support via command channels to JMC. Commands requesting MARID support are obligated to fund as appropriate.

b. Cost estimates based on command-provided requests for proposal can be provided.

c. ASCCs, ACOMs, and DRUs requiring MARID support will complete the MARID request, submit it through command channels to JMC, and copy the MARID team lead at usarmy.mcalester.usamc.mbx.do@mail.mil.

d. For funding, submit an MIPR to JMC, accompanied by the cost estimate for the specific mission.

e. JMC will enter the MARID project in the Logistics Modernization Program (LMP), and the MCAAP resource manager accepts and releases the project and generates a production order to charge appropriately.

Chapter 8
Distribution

Section I

Positioning

8–1. Overview

The safe, secure, and often rapid distribution of military ammunition is a critical element of the ammunition management process. Ammunition are distributed using multimodal Government- and contractor-owned truck, train, vessel, and air transport. The movement of military ammunition is often defined by various safety, security, and urgency of need variables. Military ammunition are often prepositioned OCONUS or afloat to compensate for the difficulties associated with these variables, as well as weight, size, aircraft and ship costs, and limitations. The movement of ammunition by aircraft should always be considered as a last resort due to cost, limited availability of aircraft, weight, or cubic volume issues.

8–2. Integrated logistics strategy

a. The JMC logistics network has installations in CONUS that perform supply depot operations (SDOs) functions (receipt, storage, inventory, surveillance, maintenance, issue, shipment, transportation, and demilitarization) for Joint Services. In accordance with a planned integrated logistics strategy (ILS), these include both primary distribution installations and archive installations.

b. Primary distribution installations perform distribution (that is, contingency and recurring demand outload) and some archive functions (demilitarization and deep storage or stow). Archive installations primarily perform demilitarization and deep storage or stow, and they occasionally distribute. Stored ammunition are conventional ammunition components and end items, missiles, and other ammunition items. These items occupy aboveground magazines, earth-covered magazines, ammunition sheds, and warehouses.

c. The core mission for these facilities is to manage conventional ammunition, missiles, and other class V items and to perform all required SDO activities or functions. ILS primarily addresses SDO workload. Enterprise–ILS is an enterprise framework for optimizing readiness and efficiency across the wholesale ammunition logistics base. It addresses SDO but also captures third-party and non-SDO workloads, and it uses an approach and methodology aimed at ensuring readiness, efficiency, and effectiveness in the event of fluctuating workload and budget.

8–3. Positioning strategy procedures

The ILS positioning guidelines address placement of new production and retrograde or field returns, including demilitarization and maintenance. In support of JMC's ILS and the Enterprise–ILS, once wholesale (depot) installation roles have been assigned and regional configurations of the ammunition logistics depot network have been established (representing an effective, efficient, and economical preferred future state), an ammunition positioning and transitioning strategy is created to move toward that state. The

transitioning strategy is the means to define the future state. Because it has significant effects on wholesale (depot) workload, transportation costs, wholesale efficiencies, and the logistic network's ability to meet contingency and recurring outload requirements, ammunition positioning is a critical element in keeping the logistics enterprise healthy.

8–4. Stockpile segmentation

a. Within the ammunition stockpile, each Department of Defense identification code (DoDIC) end item is classified as either training-unique, training standard (used for both WR and training purposes), or WR depending on the intended use of the munition.

b. Within each classification, a portion of a DoDIC's assets are stratified, in accordance with Department of Defense Manual (DoDM) 4140.01, Volume 6, as—

(1) Requirement related ammunition stock (RRMS), which includes preferred and preferred-substitute ammunition.

(2) Economic retention ammunition stock (ERMS) and contingency retention ammunition stock (CRMS), which are stock excess to RRMS but have been found economically feasible to retain.

(3) Potential reutilization stock and disposal stock, that is, stock greater than the sum of the RRMS, ERMS, and CRMS and considered excess to a military department's requirement.

c. Over time, depending on the number of assets on hand and the requirement of a DoDIC, assets could shift from one category to another. RRMS assets of today could become CRMS, ERMS, or potential reutilization stock and disposal stock assets of tomorrow, or the opposite could occur.

d. Due to ever-changing asset levels and requirements, JMC and AMCOM conduct continual stratification analysis (at least annually) to assess and assign the aforementioned categories to the stockpile's assets.

8–5. Rules and consideration factors

a. Bearing in mind ammunition asset categorization and wholesale (depot) installation classification, follow these guidelines when positioning assets:

(1) Preferably, position RRMS assets at primary distribution installations. However, they can be stored at archive sites on a case-by-case basis.

(2) Preferably, position ERMS and CRMS assets at archive installations. However, they can be stored at primary distribution sites on a case-by-case basis.

(3) Position potential reutilization stock and disposal stock assets that have been determined as excess at installations with existing or future demilitarization capability, whether primary distribution or archive.

b. The primary goal of positioning is to align regional supply with regional demand. When determining the DoDICs and asset levels of each to be positioned within a specific region or wholesale (depot) installation, consider—

(1) CONUS regional historical requirements.

(2) CONUS regional forecasted requirements.

(3) Installation storage capacity and capability.

(4) Installation contingency and recurring outload capacity and capability.

(5) DoDIC life cycle management requirements (that is, maintenance and demilitarization).

(6) Installation existing and future ammunition life cycle management capabilities.

(7) FDT and second-destination transportation cost and savings.

c. National Level Ammunition Capability (NLAC) ILS inventory manager distribution tool enables viewing the regional distribution of a particular DoDIC and its associated primary or substitute items in relation to forecasted or historical requirement trends. It enables exploring various what-if scenarios using the distribution planning calculation capability.

8–6. Transitioning strategy

Once positioning has been assessed, stockage objectives have been established for each wholesale (depot) installation, and misalignments have been identified, implement an integrated transitioning strategy to correct unbalances. Transitioning plans typically consist of multiple methods—

a. New production. The preferred and most cost effective method is to position correctly the first time. Use this lever to place new production according to the positioning strategy. This applies to both WR and training stock. If done correctly, placing new production should be a somewhat mechanical exercise.

b. Outside the continental United States retrograde and continental United States field returns. Use this lever to strategically place the OCONUS and CONUS retail stock being shipped to the CONUS wholesale (depot) network. Understanding the intended future use of this stock is imperative for placing it at the right installation.

c. Cross leveling. Asset transfers between Services are encouraged whenever it is financially and strategically prudent to prevent physical moves. Use this lever particularly during the stratification process.

d. Cross-regional shipments. Use this method to rectify a wholesale (depot) installation demand in one region by transferring assets available from a wholesale (depot) installation in another region. Correct positioning should prevent these types of shipments, but sometimes they are necessary to correct misalignments.

e. Large-scale repositioning. This lever is potentially more opportunistic since large-scale transportation tends to be an expensive endeavor.

f. Demilitarization operations. Use this lever to decrease stock that has been identified as excess or unserviceable and affects the space at an installation.

Section II

Centralized Ammunition Management

8–7. Conventional ammunition

a. Conventional ammunition are centrally managed using the Centralized Ammunition Management (CAM) concept. CAM is the Army's conventional ammunition supply chain management tool. The CAM process uses the NLAC application f or well established and efficient requisition and transshipment process models so ammunition are strategically located within multiple CONUS regions and are delivered on time at the lowest cost possible. The CAM process begins with DCS, G–3-validated requirements and ends with delivery to the supporting ammunition supply activity.

b. The CAM office is located within the JMC, Munitions and Logistics Readiness Center. The process is centered on monthly resupply efforts for regional ammunition managers to provide accurate, monthly CAM resupply requisitions for ammunition requirements at Army ASPs within the CONUS.

8–8. Procedures for regional managers

The following tasks and procedures are required for the CAM regional managers to provide CAM resupply requisitions for ammunition requirements at CONUS Army ASPs, once a resupply request has been submitted by the ASP through the NLAC website.

a. Resupply requests need to contain, at a minimum—

(1) Requesting ASP name.

(2) Ammunition DoDIC and quantity required.

(3) Ammunition nomenclature and unit pack information.

(4) Ammunition group (calibers, noncalibers, or information only).

(5) Type of ammunition management account (for example, regular training, OPL, test, or Marine Corps).

(6) Required delivery date (RDD).

(7) Any special remarks.

b. Once the resupply request is submitted by the ASP, the CAM regional manager will receive a regional manager notification email. The email will contain instructions for logging on to NLAC, as well as which ASP worksheet is available to review, update, and approve.

c. After logging into NLAC, from the main menu web page—

(1) Hover the cursor over centralized ammunition and missile management-asset visibility (CAMM–AV).

(2) Select ASP Monthly Resupply.

(3) Select the Ammunition Requirements Worksheet link to display the CAM regional managers along with contact information for each and the ASPs they are responsible for.

(4) Select the Ok button and then the appropriate region on the Ammunition Requirements Worksheet Query web page.

(5) Select the appropriate ASP name in the drop-down menu and then select the Find button. NLAC will then display the applicable ASP's request, a point of contact, approval authority, Department of Defense activities address code (DoDAAC), DoDIC, NSN, shortage quantity, requested quantity, RDD, unit pack, remarks, and other applicable information for each item.

d. CAM regional managers will review the worksheet for approval. ASP managers will be contacted immediately to resolve problems and ensure all RDDs are met. Upon reviewing the request and resolving any issues, the regional manager will—

(1) Select the NLAC menu icon at the top of the screen.
(2) Select CAMM–AV.
(3) Select ASP Monthly Resupply.
(4) Select Locked Asset Posture.
(5) Select the Locked Asset Posture link.
(6) Once on the Locked Army Asset Posture Query web page, find and select the appropriate ASP.
(7) Select the Find icon at the bottom of the page.

e. Using information from the Locked Army Asset Posture Report, verify the Ammunition Requirements Worksheet shortages (shortages will be highlighted in yellow).

f. Once the verification process is complete, hover the cursor over the NLAC menu.

(1) Select CAMM–AV.
(2) Select ASP Monthly Resupply.
(3) Select the Ammunition Requirements Worksheet tab.
(4) Select the Ammunition Requirements Worksheet link.
(5) Select the appropriate region in the Ammunition Requirements Worksheet Query web page.
(6) Select the appropriate ASP name in the drop-down menu.
(7) Select the Find icon.

g. When the validated requirements spreadsheet is shown, select the submit icon on the bottom of the Ammunition Requirements Worksheet web page.

h. Once submitted, you will see the NLAC menu icon again at the top of the page.

(1) Select the NLAC menu icon.
(2) Select CAMM–AV.
(3) Select then the Requisition-Transship Worksheet.
(4) Choose the applicable region.
(5) Choose Fort, Camp, or Station.
(6) Select the Find button.
(7) Review all columns on the CAM Regional Manager (80 Column Format) web page.
(8) If all entries are accurate, select the Submit to Munitions Transportation Management System (MTMS) button at the bottom of the page.

i. The report can be printed or saved in a spreadsheet format.

j. Address questions or problems with this process to the JMC CAM Office or the NLAC help desk found on the NLAC homepage.

8–9. Tracking movement

CAM shipments are done using the Defense Transportation Tracking System (DTTS). Data are fed into the MTMS through a direct link with the Transportation Geospatial Information System (TGIS). The Surface Deployment and Distribution Command (SDDC) at Scott Air Force Base, Illinois, maintains TGIS.

Section III

Movement

8–10. Call forward and retrograde

OCONUS ASCCs call forward ammunition and, when possible, retrograde ammunition on the same transport as needed. ASCCs develop annual stock objectives and receive allocations at the annual MRDP. Annual stock objective shortages are shipped to the appropriate commands via DCS, G–4-funded, SDDC-contracted, commercial vessels. Vessel frequency is driven by ASCC requirements and is ultimately approved by DCS, G–4. Ammunition may be flown from CONUS to an OCONUS ASCC. Airlift is limited to emergency situations and must be coordinated and approved by DCS, G–3 and DCS, G–4,

and coordinated with AMC due to cost restrictions and limited aircraft availability. Opportunities for training, exercises, FMS, acquisition and cross-servicing agreements (ACSAs), and in-country demilitarization should be considered prior to retrograde of obsolete and excess ammunition to CONUS. These opportunities must be closely coordinated with DCS, G–3; DCS, G–4; and AMC to ensure requirements for these items do not also exist throughout the rest of the Army or DoD.

8–11. Procedures for transportation personnel requesting commercial truck or postal movement of ammunition

Most daily movements of ammunition within CONUS are done via commercial truck or commercial mail system.

a. At the start of each workday, installation transportation office personnel will download installation-specific documents or shipping-requirement information from LMP.

b. Transfer the information via local procedures (for example, by spreadsheet) to operations personnel in support of shipment builds. Update this information throughout the day as needed.

c. Complete shipping or mailing documents and review them for accuracy and exception data. Once complete, take the following steps—

(1) Check each load for compatibility in accordance with DA Pam 385–64.
(2) Determine mode of transportation.
(3) Check LMP for other documents or shipments going to the same location.
(4) Ensure the mode of transportation selected will meet RDD.

d. Upon completion of these checks, retrieve destination information from the Global Freight Management (GFM) electronic transportation acquisition (ETA) terminal facility guide.

e. Ensure that a hardcopy is included with the commercial bill of lading (CBL).

f. Input shipping information into GFM ETA as follows. This example is a single destination shipment with one document—

g. Log in to ETA—

(1) Select Freight/Cargo and select GFM.
(2) Enter log-in information.
(3) Select Fast application.
(4) Select Add New Shipment.
(5) Populate the origin address using a search.
(6) Input emergency phone numbers if not populated.
(7) Populate the shipper address using the search function.
(8) Populate the destination address using a search.
(9) Update requested pickup and delivery information.
(10) Type the emergency phone numbers which auto populate in the remarks box.
(11) Select military code.
(12) Select DTTS (if required).
(13) Select mode.
(14) Enter shipper initials.
(15) Input desired carrier response time.
(16) Indicate, if required, carrier pickup is less than 24 or 48 hours.
(17) In the remarks box, type in emergency response guide information based on hazard class.
(18) Populate consignee address using a search.
(19) Select pickup service furnished.
(20) For agent name, enter “X.”

h. Select New Equipment (on a new screen)—

(1) Enter requested equipment based on size of the load (this is not on DD Form 1348–1A (Issue Release/Receipt Document)).
(2) Select yes on full visible load.

i. Select Services (on a new screen).

(1) Choose services—which are found in Federal Logistics (FED LOG) Data on Mobile Media and required services are found in the Defense Transportation Regulation (DTR) 4500.9–R—based on SRC.
(2) Save information and return to the Equipment Entry screen.

j. Select New Unit (new screen)—

(1) Choose Transportation Priority (box 27).

(2) Choose Security Risk Code (box 9).
(3) Enter the commodity code based on highest hazard class in shipment. Commodity codes can be found in FED LOG.
(4) Enter the project code (box 41).
(5) Enter the transportation control number (TCN) (box 24).
(6) Enter the DoDIC (box 27).
(7) Enter the NSN (box 25).
(8) Enter the appropriation code. Search using known transportation account code (TAC), select, and close.
(9) Enter the remarks. Always include lot numbers (box 40). This is not a present requirement for the CBL, but is a requirement for the report of shipment (REPSHIP).
(10) Enter the package count (box 19).
(11) Enter the type (box 18).
(12) Enter a description (item nomenclature box 17).
(13) Enter the quantity (total weight) (box 20).
(14) Enter the length, width, and height.
(15) Enter the cubic feet (box 21).
k. Select New Hazardous (on a new screen)—
(1) Enter the United Nations (UN) identification number using search and select (box 16). The UN identification number includes preloaded proper shipping names. Select closest installation transportation office then edit the proper shipping name box to match DD Form 1348–1A.
(2) The packing group and class division will auto populate (check against box 16).
(3) Check total hazardous quantity (check against box 20).
(4) Enter the net explosive weight (box 38).
(5) Enter the round count (box 26).
(6) Enter the certifier name (box 30).
l. Select Shipment Header (new screen).
m. Note the S-number for later reference.
n. Select Bill of Lading (on a new screen)—
(1) Select Rate and Rank button.
(2) Wait for the allowed time to be put in for carrier response.
o. The awards screen will open (the carrier selection process)—
(1) Print a copy of the carrier award screen and contact the carrier.
(2) Select the carrier that is available, and validate your nonuse codes if more than one populates.
(a) If the carrier is unable to pickup the shipment, create an incident report, and the next available carrier should populate.
(b) If there are no more carriers, place shipment back to incomplete and rate and rank again.
(c) If you are unable to get a carrier to move a shipment, inform the transportation office immediately to avoid missed RDDs.
p. When a carrier is selected, annotate on the carrier award screen the following. Annotate if 48 hours were given to the carrier and, if not, why they were not.
(1) Date and time the dispatcher accepted the load.
(2) Dispatcher's name.
(3) Date of pickup.
(4) Verification of secret clearances of drivers.
q. Select Shipment Tree.
r. Select the edit button next to Shipment identification (on a new screen).
(1) Update the actual pickup date and time.
(2) Update deliver to the no-later-than date.
(3) Put in the waybill or pro number if you know it. If not, insert a period.
(4) Type the standard carries alpha code per consignee.
s. Select Equipment identification (near the Go button) and select Go (on a new screen).
(1) Select appropriate furnished equipment.
(2) Annotate the date furnished.
(3) Annotate the dispatcher emergency phone number.
(4) Annotate the tractor number.

(5) Annotate the SN.
(6) Enter the seal numbers, if applicable.
t. Select signature and tally form (new screen).
(1) Put in TCN number.
(2) Select Ok.
u. Go into the routing identification number block (on a new screen).
(1) Edit the appropriate routing identification numbers applicable, usually 116, 114, or 347.
(2) Click on routing identification numbers menu and then on the shipment header.
v. Click on Bill of Lading (on a new screen).
(1) Click on a printable copy to view CBL for accuracy.
(2) Go back using the arrow key and select Complete Shipment.
w. Print the CBL. Hazardous materials certifier will verify information, sign, and date. Make as many copies as necessary.
x. Update the seal book with seals used on shipment.
y. Input into shared folder the following information:
(1) Pickup time.
(2) Less than a container load or B5O load or both. Include the document number if B50.
(3) Freight rate's name.
(4) Destination.
z. Input information into LMP: Load Finder.
(1) CBL number in (details tab) B/L # (full CBL#).
(a) Conveyance tab enter.
(b) Transport mode.
(c) Scheduled date.
(d) Equipment code.
(e) Scheduled time.
(f) Trailer number.
(g) Truck identification number.
(h) Carrier code.
(i) Placards.
(j) Protective services.
(k) Seals.
(2) Load action, inspect, seal, and shipment data ready.
aa. After the shipment has departed, mark the shipment as completed in LMP.

8–12. Transportation

a. The transportation processes to move ammunition for sustainment or resupply and contingency or mobilization operations are similar. The principal difference between sustainment or resupply operations and an emergency or mobilization is the quantity of ammunition moved and the timeline requirement. All ammunition requirements or movements begin with the following four operations:
(1) The Service or user generates a requirement.
(2) A sales order for SMCA-managed ammunition is initiated for the requirement and entered into LMP. Non-SMCA items for the services are submitted from their accountable property system of record (APSR) to LMP via Defense Automatic Addressing System and AMCOM or service requirements are input directly into LMP, as required. The sales order is then sourced by the CAM regional manager or the Transportation Division.
(3) SMCA documents, once sourced in LMP, deliver to the relevant installation for processing and shipment execution in LMP and MTMS.
(4) JMC Transportation Division selects the transportation movement category and TAC for the requirement. The determination is made to move the requirement by vessel or airlift, primarily based on RDD.
b. The requirements for non-SMCA-managed missiles are passed from AMCOM through LMP to JMC depots. The depot will process the requirements into MTMS, subsequently providing requirements and movement visibility to JMC. AMCOM will identify vessel or air submissions when offering missile movement requirements to JMC depots. Missile requirements are coordinated between DCS, G–4; AMCOM (missile managers); and AMCOM Transportation before releasing to the JMC depots. JMC depots and

JMC execute missile shipments based on AMCOM-provided requirement offerings for air or vessel movement.

8–13. Vessel movements

a. JMC vessel planner notifies SDDC G–3 (the cargo-booking office) of the movement requirement and need for a vessel to move materiel from seaport of embarkation (SPOE) to seaport of debarkation (SPOD).

b. SDDC and Military Sealift Command coordinate a vessel for the movement. The voyage number is provided by SDDC G–3.

c. JMC Transportation Division sets each sales order with the SPOE, SPOD, voyage document number, and TAC in MTMS.

d. Several factors are considered when selecting which depots will source ammunition. They include stock availability, container availability, workload, in-port dates, efficient consolidation, and compatibility.

e. Depots begin processing documentation and physically loading materiel. All containerized ammunition shipping OCONUS are fitted with radio frequency identification (RFID) tags, except for FMS, prepositioned material, and war reserve stocks for allies (WRSA) ammunition.

f. An advance transportation control and movement document (ATCMD) is sent from LMP to MTMS. MTMS transmits it to Global Air Transportation Execution System (GATES). GATES is used for air, ground, and over-ocean movements. The GATES serves as notification of materiel moving to the point of embarkation.

g. JMC depots ship ammunition as break bulk and containerized. When ammunition are designated for over-ocean movement via the Navy Opportune Lift Program or via ships designed to stow break bulk, they're shipped break bulk. Prepositioned material shipping requirements are moved via break bulk and containerized by JMC installations. They are moved to the SPOE by rail or truck.

h. Both MTMS and the DTTS automatically generate a REPSHIP for those shipments requiring Transportation Protective Services per DTR 4500.9–R.

i. Both containerized and break bulk ammunition are received and manifested by the port. The port will ship break bulk, or it is capable of loading ammunition into containers for forward movement.

j. Materiel is loaded on a vessel and moved to the SPOD.

k. Materiel is received, processed, and stored for distribution to the end user.

8–14. Air movements

a. Once JMC Transportation Division determines the material must be moved by air, the type of air movement is determined by the Air Mobility Command. There are two options: Air Mobility Command channel or special assignment airlift mission.

b. If Air Mobility Command channel is selected, JMC Transportation Division will set the sales order with the aerial port of embarkation (APOE), aerial port of debarkation, and TAC in MTMS. If a special assignment airlift mission is selected, although JMC Transportation Division coordinates directly with the APOE, no ATCMD is sent to Financial and Air Clearance Transportation System and the air clearance authority (ACA). Ammunition going to APOE are shipped break bulk. See the following process.

(1) Depots begin processing documentation and prepping the material for movement. Once material and shipment data are ready, the depot submits the ATCMD to Financial and Air Clearance Transportation System. The Service's ACA validates the requirement. Once the requirement is validated, the requirement is pushed to GATES. ACA coordinates with Air Mobility Command airfield to get a clearance date for the ammunition into the APOE.

(2) Once clearance is received, the depot ships ammunition break bulk to the APOE. The point of embarkation checks the material into GATES and palletizes the material on a 463L pallet. The APOE then submits the material for diplomatic clearance and assigns the material to an Air Mobility Command channel mission. Once all clearances are received, material is moved to the assigned aerial port of debarkation.

(3) The airport applies RFID tags to all 463L pallets going OCONUS.

(4) Inter-theater airlift is the responsibility of the Air Mobility Command. Because of the large volume and weight of ammunition required to support large force deployments, inter-theater airlift support is on an exception basis only.

(5) ASCC is responsible for intra-theater movement once ammunition are received in theater.

Chapter 9
Readiness

9–1. Strategic readiness
AR 525–30 defines strategic readiness as a focus on the readiness of the Army as an institution to provide sufficient, capable units to support our national military strategy. Army strategic readiness enables Army senior leaders to integrate their views of current and future strategic readiness. To respond quickly to our nation's warfighting needs, the Army must maintain ammunition readiness. Ammunition readiness applies to Army prepositioned stock (APS), conventional ammunition, missiles, and the DoD and commercial ammunition IB.

9–2. Ammunition readiness systems
The DCS, G–3/5/7 ammunition management office is responsible for assessing readiness to provide a common operating picture for worldwide ammunition readiness. The munitions readiness report (MRR), as outlined in AR 5–13, assesses readiness for the current period, and at 6-month intervals out to 24 months. The MRR provides an objective rating to each ammunition item based on requirements, inventory levels, stockpile quality, and production or procurement status (see app C for procedures to calculate ammunition ratings in support of the MRR). It is typically updated by the 15th of every month to show the readiness as of the end of the previous month.

a. Operations and Intelligence. HQDA uses the MRR information to develop a monthly update for the DCS, G–3 (DAMO–OD), Operations and Intelligence leaders, with an overview of operational issues. The MRR is a mechanism for presenting critical ammunition readiness issues to senior leaders and enables key ammunition managers to present a coordinated status. The report is developed and coordinated with DCS, G–3; DCS, G–4; DCS, G–8; ASA (ALT); and AMC to provide a consolidated Army assessment. The assessment outlines the current status of the worldwide ammunition stockpile and ammunition stocks in any ongoing operations and is briefed to senior leaders as required.

b. Strategic readiness update. The strategic readiness update indicates training ammunition expenditure trends compared to requirements over time. It is presented as part of the G–3/57 DAMO–TR training update.

9–3. Army prepositioned stocks concept of support
a. The ammunition concept support for the APS program is to match airlifted deploying unit personnel and equipment and prepositioned equipment with the correct types and quantities of ammunition in the theater of operations to provide initial combat and SL ammunition. To take full advantage of the APS concept, APS ammunition must be available as close to the area of employment as operations will allow. AR 710–1 provides overall guidance for the release of APS. Conditions under which APS ammunition may be released include major combat operations, small-scale contingencies, national emergencies, peacetime emergencies, and exercises.

b. When APS is shipped between theaters, the supporting CCDR in the theater where the ammunition are stored controls the movement of materiel through the theater until it arrives at the final destination or at an intermediate airport or SPOE. The supporting COCOM and AMC are responsible for loading and onward movement of the cargo at the storage site.

c. The unit employing APS ammunition will take possession at an ASCC-designated location. APS ammunition repositioning can also be used to build combat power without the commitment of a substantial Army force. The second benefit of repositioning APS ammunition is the parallel establishment of the necessary ammunition support structure which will become an early established resource, critical not only to APS ammunition issue but also to support follow-on ammunition sustainment operations.

d. Under the APS ammunition support concept, all personnel and a minimum amount of ammunition will deploy from home station via strategic airlift. Depending on the situation, the minimum amount of ammunition that will deploy with unit personnel, including small arms, pyrotechnics, and other ammunition not authorized for preposition, will be designated and approved by the DCS, G–3. Deploying units will check the Army Battle Command System, as outlined in Joint Publication 1–02, and coordinate with applicable ASCC operational and ammunition personnel to determine what ammunition will be brought from home station.

e. Equipment available in each APS unit set is visible in Army Battle Command System, which provides a deploying unit with information on the additional ammunition that it will need to bring from home

station. The deploying unit sends nothing needed for immediate use from home station via sealift as this would incur delays and negate the advantages of employing APS ammunition. Ammunition not mission essential early in an operation may be sent by strategic lift for subsequent linkup with the deployed force. Commanders, however, must be aware of the long delays associated with moving ammunition via sealift.

9–4. Conventional ammunition readiness

a. DoDI 3000.4 directs Services to develop their ammunition requirements. The Army develops and publishes its requirements annually in the TMR document. Both conventional ammunition and missile readiness metrics use the TMR as a key determining factor.

b. The TMR is a by-DoDIC listing of Army near-year and out-year WR, operational, testing, and training ammunition requirements. Army requirements identify the types and quantities of ammunition the Army must have to execute its warfighting and daily operational, testing, and training missions.

c. The Army staff uses the Army's near-year and out-year requirements to assist in managing the ammunition stockpile. The DCS, G–3/5/7, Ammunition Management Office (DAMO–TRA) is the lead Army agency for the development, validation, and prioritization of all Army ammunition requirements for both standard and nonstandard ammunition. The only exceptions to this are the special operations forces (SOF) unique requirements and developmental ammunition (and components) required to support testing.

d. Only test ammunition requirements are exempt from the Army ammunition requirements work group process. Test requirements are developed according to AR 73–1. The ASA (ALT) integrates and synchronizes Army ammunition test requirements to ensure the most effective and efficient use of Army ammunition prior to submitting requirements to the ATEC. The DCS, G–3/5/7, with ASA (ALT) support, approves Army test ammunition requirements in support of POM and year-of-execution resourcing.

9–5. Missile readiness

a. Maintaining a high degree of missile readiness is critical to ensuring a strong military defense. For example, key missile systems are our only viable defense against a ballistic missile threat. Missiles are one component of the DA-approved JROC risk mitigation plan and the TMR which were designed to maintain a minimum missile inventory level required to meet warfighting requirements.

b. The Phased Array Tracking Radar Intercept of Target (PATRIOT) missile field surveillance program (FSP) was established to provide PATRIOT missile managers with an assessment of the deployed missile stockpile. The purpose of the FSP is to ensure PATRIOT missiles will be maintained at an acceptable level of readiness throughout their life cycle. The FSP provides the necessary field and OT data to assess and project usable, deployable life for each missile configuration on a missile SN. This was done by integrating programs that evaluate missile and missile subassembly reliability, performance, and safety with other relevant data for timely corrective actions.

c. Each missile is subjected to continuing reliability and performance assessments throughout its life cycle and is refurbished by periodic replacement of parts that no longer meet established reliability or performance criteria. The most critical activities in maintaining reliability of PATRIOT missiles occurs at the PATRIOT missile facility where missiles can be tested, components replaced, and missiles recertified for additional years of maintenance-free service.

d. After missile deployment, results from surveillance firings, storage and aging programs, and PATRIOT missile processing at depot-level facilities will be used to provide the bulk of data for assessments of reliability and performance. Missile firing programs are conducted to demonstrate missile performance while storage and aging programs are designed to provide data to validate or extend component usable life. Missile reliability is assessed during regularly scheduled test and maintenance intervals, including missile field testing by users.

e. Annually, the usable life of each limited life component (LLC) is evaluated in view of existing test data to determine whether the usable life of the LLC can be extended. Prior to extending the missile usable life, the Lower Tier Project Office reviews and evaluates the missile flight, PATRIOT missile facility reliability, and the LLC reliability test data.

f. SB 742–1410–92–009 provides criteria to determine the serviceability of legacy and PAC–3 PATRIOT missiles. Surveillance inspections are performed (prior to storage, periodically while in storage, and prior to issue) using general provisions in DA Pam 742–1 (see chap 7 for general procedures for the MSRP).

g. Maximize use of automated information systems (AISs) and automatic identification technology (AIT) to contribute to and monitor missile readiness. SRPs are those sampling programs instituted to assess and confirm the continued reliability of the missile stockpile. Each program contributes information to the Certified Round Data Management database, maintained by the system prime contractor, and provides a measure of expected reliability; however, the reliability of the entire stockpile can only be assessed when the results of all of the reliability programs are taken in concert.

h. The PATRIOT missile system employs multiple health monitoring devices and initiatives.

(1) Digital humidity indicators with memory upgrades the capabilities of the existing digital humidity indicator to monitor and record humidity over the life of the device.

(2) Recorded data are downloaded and transferred for engineering review to identify issues with missile storage.

(3) Ammunition inspectors will download data from fielded assets using the Stockpile Reliability Program quality assurance specialist, ammunition surveillance user inspection device (SQUID).

i. The health of legacy PATRIOT missiles will also be monitored by a digital shock sensor device, which determines the criticality of a missile or subcomponent shock or drop. The digital shock sensor device is mounted to the canister or subassembly, and data are downloaded via universal serial bus (USB) (same as the digital humidity indicators with memory). The SQUID or stockpile QASAS user inspection device contains SB inspection requirements and is a collection device for field and depot inspections (for example, humidity, drop, and physical damage). This device streamlines QASAS inspections by reducing time to collect and report data and to generate exception reports. The SQUID maintains a history of inspections, provides data to support failure analysis, and is compatible with multiple systems.

9–6. Industrial base readiness

a. Army ammunition management is predicated upon an efficient and effective IB. The ammunition IB includes organic (GOGO and GOCO) and both CONUS and OCONUS commercial ammunition producers and logistical supply bases. It is designed, maintained, and sustained to meet the needs of our nation's warfighter. It is based upon a responsive, innovative, effective, and efficient engineering, manufacturing and logistics IB capable of meeting national security requirements. The IB process is outlined in AR 700–90.

b. The Defense Industrial Reserve Act calls for the establishment of the following:

(1) A comprehensive and continual program for the future safety and for the defense of the U.S. by providing adequate measures whereby an essential nucleus of Government-owned industrial plants and an industrial reserve of machine tools and other industrial manufacturing equipment may be assured for immediate use to supply the needs of the Armed Forces in time of national emergency or in anticipation thereof.

(2) That such Government-owned plants and such reserve will not exceed, in number or kind, the minimum requirements for immediate use in time of national emergency and that any such items which become excess to such requirements will be disposed of as expeditiously as possible.

(3) That, to the maximum extent practicable, reliance will be placed upon private industry for support of defense production.

c. In addition to the Defense Industrial Reserve Act, 10 USC 7532 ensures that "The Secretary of the Army shall have supplies needed for the DA made in factories or arsenals owned by the United States, so far as those factories or arsenals can make those supplies on an economical basis."

d. To minimize risk within the ammunition IB, the SMCA reviews all procurements of conventional ammunition in accordance with Section 806 of the Strom Thurmond National Defense Authorization Act for Fiscal Year 1999 (Public Law 105–261). Reviews will be designed to determine if the procurement poses an unacceptable level of risk to the NTIB. SMCA performs this function to address critical ammunition supply chain risks. Missile procurements are also reviewed by the SMCA through the same process.

e. IB base modernization is essential to ensure efficiencies, effectiveness, and safety. The SMCA executes an AAP and a selected depot modernization program so the organic IB facilities keep pace with advanced technologies that allow the Army to readily and efficiently equip the warfighter. The AAP modernization program will primarily target capabilities and capacities not available in the private sector. Goals of the modernization program are to—

(1) Mitigate risks to operational continuity.

(2) Improve environmental, safety, and occupational health deficiencies.

(3) Improve manufacturing efficiency.

(4) Reduce the overall operating footprint.
(5) Improve product quality.
(6) Improve quality of work environment.
(7) Increase energy conservation and sustainment.
(8) Improve the economic viability of each site.
(9) Establish initial production facilities.

9–7. Resourcing industrial base modernization

Modernization of the GOCO and GOGO production and logistics installations is primarily resourced using the following funding sources:

a. Procurement of Ammunition, Army. There are several initiatives funded under the PAA appropriation, including—

(1) *Providing industrial facilities.* Procures funds for modernization efforts at active GOCO AAPs and commercial facilities, including replacement of obsolete or worn production equipment, correction of deficiencies, and upgrade of infrastructures. Providing industrial facilities BLIN also establishes, augments, and improves ammunition production capabilities through modernization efforts, expands production capacity, maintains environmental compliance, and improves quality of work environment at AAPs, as well as emergency modernization and associated construction to address production disruptions at various sites.

(2) *Maintaining inactive facilities.* Procures funds to support maintenance of inactive facilities, including utilities, buildings, plant equipment, special tooling, and special test equipment being retained to support future production requirements at GOCO, GOGO, and COCO facilities. Additional efforts include supporting associated maintenance of inactive facility costs, such as grounds maintenance, fire protection, equipment security, administrative support, storage and addressing safety and environmental issues.

(3) *Laying-away industrial facilities.* Procures funding for preservation, establishment of appropriate storage environments, and movement of real property facilities and equipment required for anticipated future requirements at active and inactive GOCO, GOGO, and COCO facilities, or laid-away industrial facilities. Laid-away industrial facility funding will also support consolidation of laid-away production equipment and redistribution of production equipment that cannot be stored on-site. Laid-away efforts will also include retaining critical operational and technical knowledge of production equipment, such as engineering designs, process data, and control-manufacturing practices. Efforts will also include safety issues, environmental issues, rehabilitation, decontamination, disposal and demolition of production equipment and facilities, and environmental site assessments.

(4) *Armament retooling and manufacturing support initiative.* In accordance with 10 USC Chapter 764, commercial firms are encouraged to use underused capabilities and capacities at ARMS-eligible facilities (GOCO AAPs and GOCO depots (Hawthorne Army Depot only)) for commercial purposes to maintain a skilled workforce necessary to support industrial emergency requirements for national security purposes, to demonstrate innovative business practices to support DoD acquisition reform, to reduce the cost of Government ownership of eligible facilities and to leverage private investment at eligible facilities through long-term facility-use contracts, property management contracts, or leases.

b. Research, development test, and evaluation. This funding supports life cycle pilot process efforts. These efforts support the implementation of the SMCA Industrial Base Strategic Plan (IBSP) through technology investigations, model-based process controls, prototyping of technologies, and industrial assessments. They also assess life cycle production capabilities required for all ammunition families, address design for manufacturability to facilitate economical production, identify industrial and technology requirements, and address the ability of the production base to rapidly and cost effectively produce quality products.

c. Military construction, Army. Provides for facility construction for projects that exceed the unspecified minor military construction, Army thresholds.

d. Unspecified minor military construction, Army. Construction projects that cost more than $2 million but not in excess of $6 million. Laboratory revitalization projects can have as estimated cost up to $6 million.

e. Capital Investment Program under the Army Working Capital Fund. Provides for facility and equipment modernization at Army Working Capital Fund installations (GOGO production and logistics) and is depreciated through each installation's annual net operating revenue overhead production rate for the execution year plus 2 budget years. It relies on a consistent level of customer orders.

f. Capital investment thresholds greater than $250,000 categories. Equipment, automated data processing equipment, and software and minor construction up to $2 million.

g. Sustainment, restoration, and modernization under operation and maintenance, Army. OMA–Sustainment, Restoration, and Modernization provides for sustainment, restoration of existing structures, and some modernization and minor construction.

9–8. Identification of critical organic manufacturing technologies

a. Similar to 10 USC 2464, (core depot-level maintenance and repair capabilities), it is essential for our national defense that the DoD maintain a core ammunition manufacturing capability that is Government-owned to ensure a ready, reliable, and controlled source of technical competence and resources to ensure effective and timely response to mobilizations, national defense contingency situations, and other emergency requirements.

b. Per 10 USC 2535, to the maximum extent practicable, reliance will be placed upon private industry for support of defense production, yet it is necessary to maintain industrial manufacturing capability for production of critical items to provide production capacity not available in private industry or to assist private industry in time of national disaster. With support from the DoD Ammunition Enterprise, the Secretary of Defense identifies core manufacturing capabilities as described—

(1) *Ammunition industrial base organizations.* JPEO Armament and Ammunition and Program Executive Office Missiles and Space partnered with the AMCOM; JMC; DEVCOM; DEVCOM Aviation and Missile Center; Army Sustainment Command; and numerous additional commands, organizations, staffs, and commercial industry partners to form the ammunition enterprise (see app J for Joint Department Defense and commercial industry forums). The ammunition enterprise seeks to achieve the highest possible degree of effectiveness and efficiencies in DoD operations for production and acquisition of top quality ammunition for U.S. forces. All of these organizations play important roles in IB readiness (see AR 700–28 for roles and responsibilities for each of these). While other service liaisons are represented within the ammunition enterprise, the Joint Ordnance Commanders Group (JOCG) ensures that it fully supports the needs of our joint warfighting force.

(2) *Composition of the ammunition industrial base.* In addition to the commands, organizations, and agency partners that make up the ammunition enterprise, there are GOGO, GOCO, and COCO facilities that produce, store, issue, receive, sustain, and demilitarize ammunition (see app B and fig 9–1 for an overview of these facilities).

9–9. Long-term industrial base strategic planning

a. In accordance with DoDI 5160.68, the SMCA executor will “lead in the development and publication of an overarching conventional ammunition IB strategic plan that supports the Military Services and U.S. Special Operations Command’s conventional ammunition requirements as reflected in the Future Years Defense Program.”

b. The purpose of the SMCA IBSP is to establish a management framework for posturing the ammunition production and logistics supply chain to effectively and efficiently respond to current and future conventional ammunition requirements.

(1) The four major goals of the SMCA IBSP are—

(a) Ensuring readiness while balancing acquisition management and IB risks.

(b) Ensuring depot logistics readiness while balancing stockpile requirements (operational readiness) and financial management (stockpile management funding required versus received) risks.

(c) Transforming the IB to meet current and future requirements.

(d) Operating effectively and efficiently.

(2) Overarching strategies of the SMCA IBSP include—

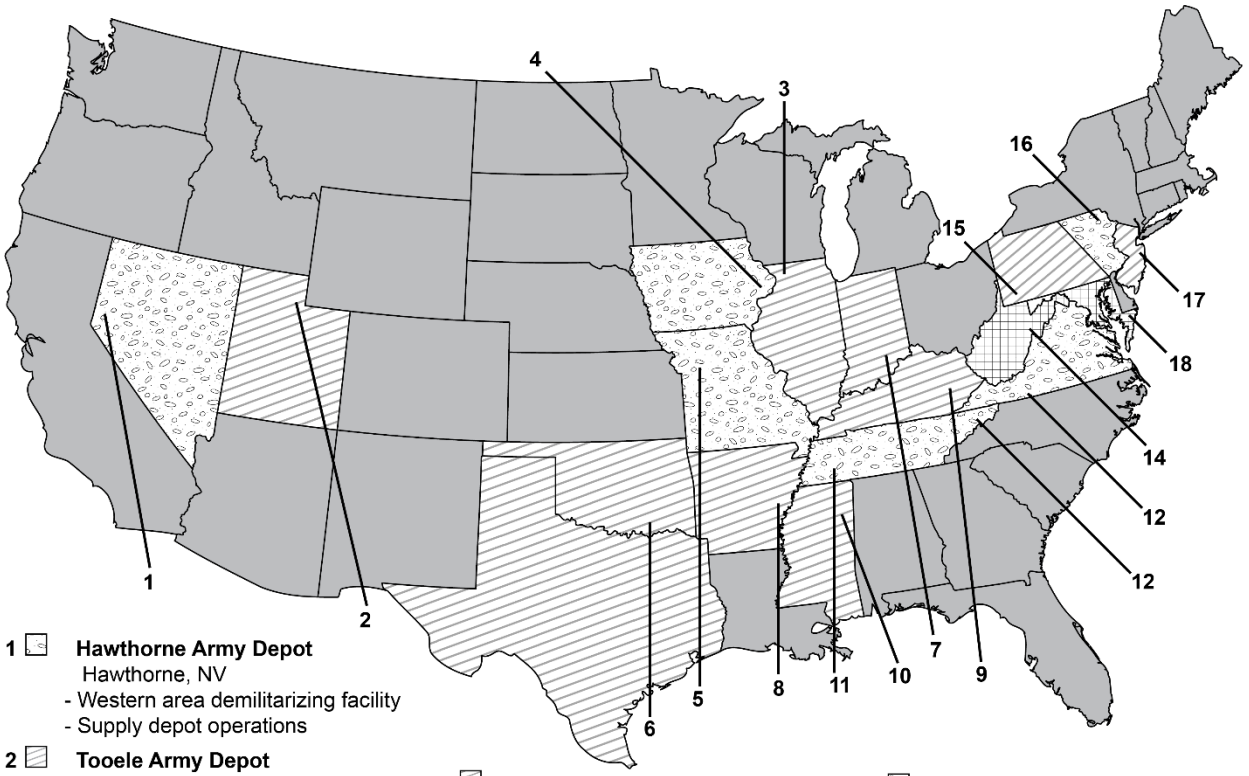
(a) Factoring IB considerations into the acquisition process.

(b) Synchronizing acquisitions and investments to ensure the required manufacturing and logistics capabilities remain available and viable.

(c) Ensuring acquisitions will posture and sustain the production base.

(d) Sizing the IB infrastructure to retain readiness and maximizing operating efficiencies to reflect DoD strategic guidance and economic realities.

(e) Identifying and implementing opportunities for greater Joint Service activities.



1 **Hawthorne Army Depot**
Hawthorne, NV
- Western area demilitarizing facility
- Supply depot operations

2 **Tooele Army Depot**
Tooele, UT
- Supply depot operations
- Ammunitions peculiar equipment

3 **Rock Island Aresenal**
Rock Island, IL
- HQ Joint Munitions & Lethality LCMC
- HQ Joint Munitions Command
- Quad City cartridge case facility (metal parts, steel cartridge cases, 5" Navy gun & 105mm Army Stryker)

4 **Iowa AAP**
Middletown, IA
- Missile warheads
- Load assemble & pack (120mm tank, 105/155mm artillery)

5 **Lake City AAP**
Independence, MO
- small caliber 5.56, 7.62 & .50 cal; 20mm

6 **McAlester AAP**
Mc Alester, OK
- 500, 1000 & 2000 lb bomb LAP
- Intelligent munitions
- Defense ammunition center
- White/red phosphorus
- Smoke/obscurants
- Supply depot operations

7 **Crane Army Ammunition Activity**
Crane, IN
- 5"/54 caliber & 76mm load, assemble
- Illumination, pyrotechnics, flares
- Supply depot operations

8 **Pine Bluff Arsenal**
Pine Bluff, AR
- White/red phosphorus
- Smoke/obscurants
- Supply depot operations

9 **Blue Grass Army Depot**
Richmond, KY
- Supply depot operations
- Chemical defense equipment

10 **Anniston Munitions Center**
Anniston, AL
- Supply depot operations
- Missile storage
- Demilitarizing facility

11 **Milan Army AAP**
Milan, TN
- No production mission

12 **Holston AAP**
Kingsport, TN
- RDX and HMX explosives, and IMX formulations

13 **Radford AAP**
Radford, VA
- Solventless propellent
- Nitrocellulose

14 **Allegany Ballistics Laboratory**
Rocket Center, WV
- Load, assemble and pack
- Fuses

15 **Letterkenny Munitions Center**
Chambersburg, PA
- Supply depot operations
- Tactical missiles

16 **Scranton AAP**
Scranton, PA
- Projectile metal parts (155mm artillery & 120mm mortars)

17 **Picatinny Arsenal**
Picatinny Arsenal, NJ
- PEO ammunition and 6 PMOs
- Development & Engineering Center

18 **Naval Surface Warfare Center-Indian Head Division**
Indian Head, MD
- Cartridge actuated device/ propellant actuated device

Legend

Army GOGO installation | **Army GOCO installation** | **Navy GOGO or GOCO** | **BRAC site**

AAP - Army ammunition plant
HMX - High-melting explosive
IMX - Insensitive-munitions
LAP - Logistics Assistance Program
LCMC - Lifecycle management command
RDX - Research Department explosive

Figure 9–1. Overview of storage facilities

Chapter 10
Reporting

Section I

Preparation of Reports

10–1. Overview
This chapter provides reporting procedures for the Worldwide Ammunition Report (WAR), for preparing the reports, and for preparing MFDRs and firing data reports for the Excalibur artillery round.

10–2. Companion Army regulation
See AR 700–28 for policies, responsibilities, and guidelines for reporting issues, receipts, and expenditures of class V materiel (that is, ammunition, Army, and commodity classification).

10–3. Description
WAR performs two functions—

a. User reporting, which consists of a consolidated database, generated from various APSR (that is, retail APSR, wholesale APSR, and Global Combat Support System—Army (GCSS–A)).

b. The user-defined reports providing worldwide ammunition asset posture, information for preparing budget and Army financial statements, other Services' ammunition asset posture for ammunition stored at Army ammunition supply activities, SNs of all physical security risk category (CAT) I missiles or rockets and PATRIOT missiles reported for unique item tracking (UIT), and user-defined custom reports.

10–4. Reports and data description
a. Physical security risk category I missiles and rockets and Phased Array Tracking Radar Intercept of Target unique item tracking report. This report contains ammunition requirements and asset posture for all CAT I ammunition, including PATRIOT missiles.

b. User-defined reports. These reports are fully customizable from any of the data elements provided by the systems.

c. Data for management. Reports generated furnish data required for—

(1) Budget estimates.
(2) CAT I missile or rocket and PATRIOT missile tracking.
(3) Supply control studies.
(4) MRDP and Missile Distribution Plan.
(5) Distribution planning.
(6) Procurement initiation.
(7) Scheduling.
(8) Readiness assessment.
(9) Maintenance programs.
(10) Stockpile reliability.
(11) Ammunition serviceability.
(12) Various other requirements, as determined by DCS, G–4.

10–5. Worldwide Unique Item Tracking Report (Part VI)
The Worldwide Ammunition Report System (WARS) UIT central registry maintains visibility of CAT I security risk ammunition (as identified in AR 190–11), PATRIOT missiles, and the 155 mm Excalibur artillery round, the 120 mm XM395 guided mortar cartridge, and the fuze multi-option precision guidance kit, as well as the residue for CAT I items, by SN, within the Regular Army, the Army National Guard (ARNG)/Army National Guard of the United States, the U.S. Army Reserve (USAR), and Army Reserve Officers' Training Corps.

a. The sources of class V data to update and maintain record keeping at the UIT central registry is the GCSS–A for unit level, Service Life Extension at the tactical, retail, and supply support activity (SSA), at the national (wholesale) depot-level activity, retail level, and production facilities (contractors).

b. All controlled inventory item code (CIIC) I or CAT I nonnuclear missiles and rockets with SNs, PATRIOT missiles and 155 mm Excalibur artillery rounds the 120 mm XM395 guided mortar cartridge,

and the fuze multi-option precision guidance kit, as well as the residue for CAT I items will be reported to the UIT central registry.

c. All CAT I ammunition that are introduced into the Army inventory will be reportable. The requirement to report SNs starts when DD Form 250 (Material Inspection and Receiving Report) is signed by an Army representative at acceptance prior to shipment to depot. All contractors who provide maintenance support must report receipt, possession, and shipment of CAT I missiles and rockets, by SN, the WAR.

d. Follow up for CAT I and UIT reportable ammunition in transit will be as follows:

(1) The UIT central registry will follow up on all in-transit open shipments of UIT reportable assets. JMC will send a report on open shipments of more than 30 days for CONUS shipments and more than 90 days for OCONUS shipments with no receipt confirmation. The receiving ASP will resolve these discrepancies within 10 working days.

(2) If the UIT central registry receives no response within 10 working days, an electronic message will be sent to the receiving activity with an information copy to the receiving activity's higher headquarters (for example, ACOM) and DCS, G–4 for prompt resolution and intervention.

(3) If there is a negative or lack of response to the message within 15 working days, the DCS, G–4 will direct the ACOM to report the assets as missing, lost, or stolen to the appropriate investigative agency with an informational copy provided to the shipping activity to initiate a financial liability investigation of property loss (FLIPL).

10–6. Worldwide Ammunition Report command codes

Use command codes identified in table 10–1 when submitting reports to WARS.

Table 10–1
Worldwide Ammunition Report command codes

Code	Description	Code	Description
100	Central Europe GE/UK	104	Central Europe GE/UK APS2
101	Norway (NA)	105	Bosnia (NA)
102	Italy (8th Log Command Camp Darby)	106	Hungary (NA)
103	Italy, Camp Darby APS2	107	Kosovo
108	U.S. African Command		
200	U.S. Army Corps of Engineers (U.S. Army Pacific (USARPAC)) Reserve (Okinawa)	210	Eighth Army
201	USARPAC Reserve (Japan) (NA)	211	Former WRSA–Korea
202	U.S. Army, Japan–Japan/Philippines	212	Republic of Korea Army (NA)
300	U.S. Army Forces Command	319	U.S. Army Intelligence and Security Command–U.S. Army Installation Management Command (IMCOM)
301	USARPAC (Alaska)	320	Military Operations Division, DCS, G–3/5/7–IMCOM
303	USARPAC (Hawaii)	321	Military Traffic Management Command–IMCOM
302	United States Army South	322	United States Army Criminal Investigation Command–IMCOM
304	USARPAC Reserve (Alaska) (NA)	323	United States Army Space Command–IMCOM
311	Military District Washington	324	United States Army Signal Command–IMCOM
312	Medical Command	325	Network Enterprise Command–IMCOM
313	USAR Command	326	U.S. Army Corps of Engineers–IMCOM
314	Multinational forces	327	1 CONUS–IMCOM
315	United States Army Special Operations Command	328	5 CONUS–IMCOM
316	AMC–IMCOM	330	ARNG

Table 10–1
Worldwide Ammunition Report command codes—Continued

Code	Description	Code	Description
317	NA–IMCOM		
318	IMCOM	400	U.S. Southern Command
500	TRADOC–IMCOM		
600	Iowa	610	Newport
602	Lake City	612	Kansas
604	Louisiana	614	Crane
605	Milan	615	McAlester
606	Ravenna	616	Hawthorne
607	PBA	617	Mississippi
608	Rock Mountain	618	Radford
609	Twin City	619	Holston
700	ATEC	710	Research Development and Engineering Command
701	AMCOM	711	Belvoir Research, Development and Engineering Center
702	JMC–Surveillance	712	Tank-Automotive and Armaments Command (TACOM)
703	TACOM	713	TRADE
704	RDT&E Other	720	ATEC
705	U.S. Army Communications–Electronics Command	741	Aberdeen Proving Ground
706	DEVCOM	742	Yuma Proving Ground
		743	White Sands Missile Range
708	CRDEC		
801	Production	858	Seneca
850	Anniston	859	Sierra
851	Blue Grass	860	Tooele
853	Letterkenny	862	Tobyhanna
854	Navajo (NA)	863	New Cumberland, PA
855	Pueblo (NA)	870	Contractor
856	Red River	880	Retrograde (in–transit to)
901	U.S. Army Central Command (Kuwait)	922	Bob Hope (NA)
902	QATAR (CL/Unit OPL)	923	Dahl
903	QATAR	924	Red Cloud (NA)
904	Iraq	925	Charlton
910	Container Ship #1 (John U D Page)	926	Watkins
911	Container Ship #2 (Eddie Carter)	930–939	War reserve stockpile (WRS) Countries A–J
912	Soderman	931	WRS Country B (NA) (Proj EBR)
913	Watson	935	WRS Country F
915	Charleston (Port)	990–999	Other Countries

Table 10–1
Worldwide Ammunition Report command codes—Continued

Code	Description	Code	Description
917	Sisler (NA)	990	Somalia (e)
918	Pomeroy (NA)	991	Haiti (NA)
919	Arizona (NA)	993	Syria
920	Green Valley (NA)	994	Afghanistan/Uzbekistan
921	Military Ocean Terminal Sunnypoint	995	Djibouti

Section II

Registration and Reporting

10–7. Items subject to reporting

a. Report SNs of all CIIC I CAT I nonnuclear missiles and rockets, PATRIOT missiles, 155 mm Excalibur artillery rounds the 120 mm XM395 guided mortar cartridge, and the fuze multi-option precision guidance kit, as well as the residue for CAT I items and CAT II ammunition to the WAR UIT missile registry.

b. Report all CAT I and UIT reportable ammunition produced at a contractor-owned or operated facility which are waiting for FDT for delivery into the Army inventory to the Army SN tracker when DD Form 250 is signed at acceptance by an Army representative prior to shipment.

c. All contractors who provide maintenance support and possess the assets must report receipt, possession, shipment, and destruction of CAT I missiles and rockets, by SN, to WARS.

10–8. Follow up for unique item tracking reportable ammunition in-transit

a. The UIT registry will follow up on all in-transit open shipments of UIT reportable assets. JMC will make available a report to an appropriate command or organization that has open shipments.

b. Upon notification, the receiving ASP will resolve all discrepancies within 10 working days for CONUS ammunition storage areas with open shipments and no receipt confirmation for more than 30 days and for OCONUS open shipments and no receipt conformation for more than 60 days.

c. If the UIT registry receives no response within 10 working days, JMC will send an electronic message to the receiving activity with an information copy to the receiving activity's higher headquarters (for example, ACOM) and DCS, G–4 for intervention and prompt resolution.

d. If there is a negative or lack of response to the message within 5 working days, the DCS, G–4 will direct the ACOM to report the assets as missing, lost, or stolen to the appropriate investigative agency with an information copy provided to the shipping activity to initiate a FLIPL.

10–9. Follow up for open transactions and missing serial numbers

a. The UIT registry maintains data files on SNs that have been dropped from an activity's record.

b. For training ammunition, ACOM Distribution Management Center (DMC) will promptly research and resolve missing SN discrepancies that do not have a corresponding closure—such as a turn-in of the SN item, a turn-in of residue of the SN transaction, or a destroyed transaction—for more than 30 days.

c. The UIT missile registry will generate a report for any open transactions or missing SNs that are delinquent for more than 30 days to the ACOM DMC. The ASP and units will resolve the discrepancies within 10 working days.

10–10. Receipt

a. If the SN on the item matches the SN data in the shipment document SN listing, the SN information will be considered correct and the reporting activity will prepare a receipt using appropriate data.

b. If the SN received does not match the SN on the shipping document, the correct SN will be posted to the system and an SF 364 (Report of Discrepancy (ROD)), per DA Pam 25–30, will be prepared and sent to the activity submitting the erroneous shipment data.

(1) If the SN entered is already shown on the UIT database as at another location, process it and consider it an asset of the last reporting location.

(2) JMC manager will notify both locations claiming ownership that both need to physically verify the item to determine which location is correct.

(3) When the location is verified, JMC will provide resolution instructions to each location.

10–11. Inventory gain

a. Report the gain of a missile or rocket with an SN through an inventory adjustment report (IAR). Transmit data to the UIT missile registry.

b. Additional reporting is as required per AR 710–2 and AR 190–11. Verify gain information with the appropriate accountable officer.

(1) If the SN entered is already shown on the UIT database as being present at another location, process it and consider it an asset of the last reporting location.

(2) JMC will notify both locations claiming ownership that both need to perform a physical verification of the item to determine which one is correct.

(3) When the location is verified, JMC will provide resolution instructions to each location.

10–12. Inventory loss

a. Suspected inventory loss.

(1) Units or ammunition storage areas will immediately report a potential lost or stolen asset to the UIT registry and confirm in writing that an investigation or FLIPL is in progress. Prepare a notification of suspected loss transaction.

(2) The UIT registry will—

(a) Review and research each suspected loss against the database master file.

(b) Report to the ACOM DMC if the asset is found under a different reporting activity.

(c) Report suspected loss to DCS, G–4 (DALO–SPM).

(3) The reporting activity will ensure that suspected lost or stolen missiles and rockets are reported per AR 190–11.

b. Actual inventory loss.

(1) Immediately report the loss or theft of a missile or rocket, and confirm in writing that an investigation or FLIPL is in progress. Prepare an IAR.

(2) Coordinate inventory loss with the responsible accountable officer.

10–13. Recovered missiles and rockets

a. Report assets confiscated, found on post, or otherwise recovered (previously dropped from accountability by an IAR, FLIPL, or board of investigation) to HQDA per AR 190–11 and register them to the UIT registry as an inventory gain.

b. Report recovered CAT I class V assets without NSN or SNs to the UIT missile registry by message including make, model, caliber, and other nomenclature data. The WARS Office will assign NSNs or new SNs.

10–14. Interrogation

a. When investigative agencies query the UIT registry by message, letter, or telephone, the UIT registry will identify to investigative agencies, within 72 hours, the last known accountable activity possessing a specific missile or rocket with an SN.

b. The UIT registry will query the responsible Army reporting activity as to current CAT I ammunition item status and owning activity (property book or stock record account (SRA)) from the master file or other available SN files.

c. The reporting ACOM DMC receiving missile or rocket SN verification or status requests from JMC will direct the accountable or owning unit (property book or SRA) to sight verify the CAT I ammunition item and furnish verification results directly to the JMC Office within 72 hours of the original request.

d. The UIT registry will maintain UIT registry investigative inquiry records indefinitely and request the logistic support agency to provide historical records prior to September 2000, as needed.

10–15. Demilitarization

a. Report missiles and rockets when demilitarized per DoDM 4160.28, Volume 1 and remove them from the accountable record to the WARS UIT registry. Send the transaction to the WARS UIT missile registry and update the reporting activity file.

b. Only the activity performing the demilitarization that removes the missiles or rockets from the system will submit this transaction.

c. The demilitarization activity must retain demilitarization certificates in the accountable record files and submit copies to the appropriate accountable officer.

10–16. Unit deployments

When a unit transfers from the jurisdiction of one reporting agency to the jurisdiction of another, the gaining activity (for example, Kosovo) will follow receipt transaction procedures, and the losing activity (for example, U.S. Army Forces Command and European Command) will follow shipping transaction procedures to show the accurate location of stock.

10–17. Reporting activity changes and corrections

a. Change to Department of Defense activities address code. When the DoDAAC of a reporting agency changes, notify the UIT missile registry and update the reporting activity file before reporting the transactions.

b. Serial number corrections. To correct an asset SN erroneously reported to the UIT missile registry, use procedures outlined in the APSRs or GCSS–A end user manual.

c. National stock number corrections. Use same procedures as in *paragraph 10–14b*.

d. Mass stock number change. Use procedures outlined in the APSR or the GCSS–A end user manual.

10–18. Reconciliation procedures

a. Each reporting activity will use procedures outlined in the APSR or the GCSS–A end user manual.

b. The UIT registry will follow up with reporting activities on nonresponses to previously submitted reconciliation requests and rejects.

c. The WARS office will perform the annual reconciliation as of 30 September each year.

10–19. Depot or storage facility procedures

a. Depot and storage facilities. Depot and storage facilities will use the procedures in paragraphs *10–19b* through *10–19d* to report SN transactions.

b. Processes for receipts. How to report various receipts—

(1) *Turn-in receipts from sponsored activities.* Report receipts from supported activities per procedures for wholesale or retail-level activities. For fired (expended) SNs, use the turn-in of residue transaction in the retail APSR. Expended SN must be annotated on this transaction.

(2) *Other than turn-ins.* Receipts, other than turn-ins, that have been registered in the UIT registry should have a listing of the SN of each asset shipped attached to the shipping documentation when received. Validate that listing by checking the list against the SN of each missile and rocket. Take the SN data from the validated asset SN listing and receipt transactions, and transmit it to the UIT registry.

(3) *Assets without a serial number listing.* Report receipts of assets without an SN listing to the UIT registry. Prepare a receipt transaction, using data from shipment documents, such as document number, shipper's DoDAAC, and so on. Report SN data for the WAR.

c. Shipments to other activities. Include the SN of each asset to be shipped on a list and securely attach the list to the storage containers in plain sight. Report shipment by SN for the WAR.

d. Other transactions. Report other required transactions as detailed in this regulation.

10–20. Reporting and disposition of expended launch tubes

a. Process the destruction of the expended launch tube in the appropriate automated system using the designated transaction code to indicate destruction.

b. Indicate the expended SN on the destruction transaction, which will close the life cycle for that SN.

c. Report the destruction and final disposition of expended tubes to JMC.

10–21. Dropped category I reconciliation

Every activity that has or has had possession of CAT I nonnuclear missiles, rockets, and the 155 mm Excalibur artillery round will access the WAR for drop CAT I generator at least once every 30 days utilizing their respective DoDAAC or unit identification code (UIC). This report reveals those SNs whose last re-

ported location was that particular DoDAAC or UIC. This requires access to the website, which is controlled by user identification and password or CAC. Once SNs have been identified, research will be performed to determine disposition of each SN reflected as over 60 days old. Following research, one of the following actions must be performed.

a. Process any missing transactions (for example, turn-in of residue and destroyed) and transmit them as required.

b. A flat file of transactions may be emailed to the NLAC. Obtain instructions by contacting the NLAC help desk via email to usarmy.pentagon.hqda-dcs-g-4.mbx.nlac-help-desk@mail.mil.

c. As an alternative, hardcopy documentation may be sent to Headquarters, Joint Munitions Command, (AMJM–MLI), 2695 Rodman Avenue, Rock Island, IL 61299–5500.

d. Final disposition on dropped CAT I ammunition will be updated in NLAC via one of the actions listed in paragraphs *10–21a* through *10–21c* prior to the line aging to 75 days.

Section III

Transit Accounting and Reporting

10–22. Transportation procedures

Transportation procedures described in paragraphs 10–23 through 10–25 ensure the generation of in-transit (to theater or command) data required for the WAR Requirements and Assets Reports. The JMC Ammunition Logistics Readiness Center Transportation Office communicates directly with all reporting theaters or commands to carry out its transportation activity responsibilities for this report.

10–23. In-transit to theater or command

Data furnished for the WAR will be developed by the JMC Ammunition Logistics Readiness Center Transportation Office and represent the quantity of total stock in-transit. In-transit status starts with the issue of the materiel release order (MRO) or APSR-generated delivery order to the source of supply, and it ends with the posting of a receipt transaction.

a. For airlift, data not in-transit are sent to NLAC.

b. FMS data is not included in the WAR.

10–24. In process

The MTMS reports the data for the WAR when the MRO has been received, sourced, and offered to the Integrated Booking System at the military SDDC for movement. This usually occurs within the same day. This data is reported to NLAC by MTMS when the MTMS REPSHIP is submitted.

10–25. In-transit data feeds

The in-transit data feeds are done electronically from the JMC MTMS to NLAC. There is an exception if the vessel is diverted, either en route or at the first scheduled point of delivery by the theater Army commander or the unified or Joint commander. In this case, advise JMC immediately. Continue to carry assets aboard the diverted vessel as in-transit to theater until the vessel arrives at the newly scheduled point of delivery. Specific procedures for reporting in-transit quantities are as follows:

a. JMC CONUS shipping activities will provide an electronic REPSHIP within 24 hours after shipment of all conventional ammunition or GMLR items to a domestic customer, transshipping activity, clearance authorities (ocean and air), sponsoring service accountable supply activity, ultimate consignee, or final destination. The format and subject will be according to DTR 4500.9–R.

b. GATES will electronically transmit a complete copy of all vessel manifests for all conventional ammunition or GMLR items, including small arms to the JMC MTMS, the first scheduled discharge terminal, and the DMC within 72 hours of vessel sailing. These manifests must include the vessel name and sailing date. Overseas terminals will provide the same documents and data by mail or electronically to JMC MTMS on conventional ammunition or GMLR items being retrograded.

Section IV

Firing Data Reports

10–26. Reports

Firing data reports are required for the reporting systems and provide performance data and field history to develop—

a. A continual evaluation of missile system or artillery round performance and effectiveness.

b. An effective surveillance management tool that will reflect trends and indicate potential problems throughout the life cycle of the system.

c. Reliability trends and estimates reflecting configuration modifications, environment, and system age.

d. Shelf life and service life assessments.

e. Data necessary to support malfunction investigations.

10–27. Procedures for submitting missile firing data reports

a. Commanders of active, reserve, and ARNG components; field commanders of active, reserve, ARNG components; and commanders of Army test agencies establish local implementation procedures and submit MFDRs for each missile firing attempted. Where missiles are being tested at an ATEC range, MFDRs are superseded by the detailed test report submitted at the end of the test. Where local procedures are applicable, the LAR or QASAS may assist the preparation of the reports.

b. Submit MFDRs by using the fillable forms available on the Army Publishing Directorate website, https://armypubs.army.mil/.

c. See appendix D of this pamphlet procedures for firing data reports for specific missiles. Copies may be required to be submitted to other agencies as identified in appendix D, depending on the missile system.

d. In the case of a class A, B, or C malfunction during any particular firing attempt, the firing agency will submit both a firing report and a malfunction report. Include the malfunction description information and the malfunction report number (if available) in the firing report (see AR 75–1 for guidance on malfunction reporting).

e. Submit MFDRs no later than 5 days after the event.

Chapter 11
Automated Information Systems and Automatic Identification Technology

Section I

Automated Information Systems

11–1. Overview

a. The Army Ammunition Management System uses a full suite of AISs and AIT to support the ammunition management mission. These systems provide the ammunition community, as well as senior military decision makers, with critical information on the health, size, location, status, and cost of the ammunition inventory. This chapter briefly overviews AISs and AIT, which enhance the Army's ability to provide ammunition in the right place at the right time.

b. The AISs play a significant role in our ability to manage the ammunition stockpile. They support the management and storage of ammunition information from requirements determination through expenditure.

c. Regarding property accountability, commanders at all levels will ensure that available AIT—such as barcodes, two-dimensional (2D) barcodes, optical memory cards, RFID tags, contact buttons, satellite tracking, or electronic signature capabilities—are fully integrated into all Government property management and accountability functions (such as, receipt, store, inventory, issue, and ship).

(1) AIT utilization applies to both formal and informal property accounting and greatly enhances management and visibility of arms, ammunition, and explosives (AA&E).

(2) Comply with hazards of electromagnetic radiation to ordnance (HERO) standards when using AIT in close proximity to ammunition.

(3) Ordnance and other devices that contain electro-explosive devices must function in their operational electromagnetic environment without inadvertent actuation. To prevent the susceptibility of electro-

explosive devices to radiated or conducted electromagnetic energy, HERO limits are imposed. So the systems achieve these limits, HERO tests are conducted at the naval electromagnetic radiation facility in conjunction with Naval Surface Warfare Center Dahlgren Division. These tests classify the ordnance's susceptibility to electromagnetic radiation as HERO safe, HERO susceptible, or HERO unsafe. RFID-associated HERO certifications are available on the Defense Acquisition University website at https://www.dau.edu/.

11–2. Munitions deployment planning process

a. The munitions deployment planning process (MDPP) is a joint DCS, G–3 and DCS, G–4 effort to enhance the adaptive planning process by identifying time-phased theater OPLAN ammunition requirements within the TAMIS application and to provide those requirements to the NLAC MDPP sourcing process, which matches requirements to on-hand theater, afloat, and CONUS wholesale ammunition assets. NLAC MDPP identifies and schedules specific DoDIC shipments from various CONUS ammunition depots to meet the theater OPLAN RDD.

b. NLAC MDPP also identifies sourcing mitigation actions to meet OPLAN requirements, such as substitutions, CC availability, and purpose code availability. Once requirements are received from TAMIS or another requirement-generation process, the NLAC MDPP sourcing result can be obtained within a matter of minutes.

c. NLAC sourcing data can also be provided to the U.S. Transportation Command for transportation feasibility analysis and time-phased force and deployment data build.

11–3. Standard Army Ammunition System

a. The Standard Army Ammunition System (SAAS) is a web-based, windows environment information system used at the operation and management levels in a theater of operations and retail installations. SAAS is the system of record for retail-level accountability at ammunition support activities, including ASPs and TSAs. It provides information processing support for conventional ammunition logistical support application.

b. SAAS provides an integrated ammunition management and control capability for ammunition support operations including receipt of shipments, inventory, surveillance, issuances, turn-ins, and shipments.

11–4. National Level Ammunition Capability

a. The NLAC enhances ammunition logistics planning and management by supporting the joint ammunition community, including ammunition users, managers, and planners throughout the DoD. NLAC is managed by the DCS, G–4 Ammunition Directorate. NLAC provides a web-based total asset visibility system that receives its data from the Services' ammunition management and visibility systems, as well as DoD transportation and document tracking systems. Worldwide ammunition stockpile visibility information is viewed in a number of ways, including by location, SN, lot number, CC, Service ownership, and location within the transportation pipeline. In addition, ammunition asset posture and transportation status data are used in conjunction with NLAC's advanced decision-support tools, developed to enhance the decision process at the strategic and operational levels and to enhance Service, wholesale, retail, and unit level ammunition operations management functions.

b. NLAC account holders can access worldwide ammunition asset posture, in-transit visibility (ITV), CAMM–AV, and OCONUS ammunition operations management, configured load, ammunition reports, and ammunition reference material. NLAC can be accessed at https://www.nlac.army.mil/. NLAC accounts can be requested at the NLAC website.

11–5. Total Ammunition Management Information System

a. TAMIS is the DCS, G–3/5/7 enterprise information system of record for calculating, prioritizing, and managing ammunition requirements, forecasts, and requests for issue for the Army.

b. TAMIS generates requirements and reports for annual training, OPLs, CLs, SLs, testing requirements, command stockage objectives, deploying units, readiness assessments, and numerous Army, joint, and DoD studies.

c. The DCS, G–3/5/7 Ammunition Management Office uses TAMIS to calculate, validate, approve, and distribute ammunition authorizations and collect expenditures from each ACOM, ASCC, field operating agency, DRU, and the ARNG.

d. ACOMs and other Army organizations use TAMIS to build, prioritize, and sub-authorize (distribute) training ammunition authorizations and to build and establish operational requirements for unit CLs and SLs.

e. The Total Force and the Marine Corps use TAMIS to forecast and approve ammunition requirements, to process and validate requests for both operational and training ammunition, and to report expenditure metrics and ammunition status. AMC and ATEC use TAMIS to build requirements, forecast, and sub-authorize ammunition to support testing.

f. TAMIS is a real-time, web-based enterprise information system that processes data defined by the Army as unclassified but sensitive. TAMIS is the only official Army system for establishing, maintaining, and managing requirements, authorizations, forecasts, requests, and expenditures of ammunition. TAMIS computer-based training is available at https://tamis.army.mil/.

11–6. Global Combat Support System—Army

a. The GCSS–A fields an Army AIS as the primary tactical logistics enabler to support Army and joint transformation of sustainment using an enterprise resource planning (ERP) system. It reengineers current business processes to achieve end-to-end logistics and provides unclassified feeder data to applicable command and control systems. It implements tactical financial processes relating to supply and maintenance. GCSS–A integrates modular and interactive information management and operations systems across all combat support and command and control functions.

b. The system will operate in a network-information centric environment that incorporates, to the greatest extent possible, DoD standard data by using commercially available software. By providing a seamless, integrated, and interactive information management and operations system at all force support levels, GCSS–A will execute the Army's combat support or combat Service support transformation vision and will support the tactical component of the Single Army Logistics Enterprise. GCSS–A will field an Army AIS as the primary tactical logistics enabler to support Army and joint transformation of sustainment using an ERP system and will reengineer current business processes to achieve end-to-end logistics and to provide unclassified feeder data to applicable C2 and joint systems. It will also implement tactical financial processes relating to supply and maintenance.

11–7. Industrial Base Assessment Tool

a. The Industrial Base Assessment Tool (IBAT) is a web-based, decision-support tool that provides supply chain analysis and risk assessment of critical ammunition end items and components across functional organizations to enhance acquisition planning and IB preparedness. JMC is the proponent for the IBAT. IBAT is the repository of industrial preparedness planning data supporting ammunition items and components within the SMCA and was developed in accordance with DoDI 5160.68.

b. The IBAT contains industrial preparedness planning information on more than 1,200 end items and 1,300 components, as well as data on hundreds of U.S. and foreign ammunition producers. IBAT provides detailed information relative to the production base that supports the procurement and sustainment of ammunition end items and management of the ammunition IB. Examples of industrial preparedness planning data include manufacturing capacities, bill-of-materiel data, item attributes, source dependencies, SPFs, critical skills and processes, and the Section 806 watch list. It also contains hundreds of supply chain maps used to convey the complex ammunition supply chain.

c. IBAT has a robust custom reporting feature, as well as several automated reports to extract data on facility capacities; foreign, single, or proprietary sources; and component goes-into information. These tools support decision makers in developing viable acquisition strategies and in maintaining a healthy supply chain.

d. The simulation and modeling function enables a user to conduct ammunition production and demand scenarios across any timeframe, to analyze POM-based scenarios, and to review archived analysis. The IBAT disaster-mapping module is used to assess IB impacts due to disasters, such as floods, hurricanes, or major production malfunctions. The minimum sustaining-rate module is used to predict suppliers at risk due to downturn in ammunition budgets.

11–8. Army Enterprise System Integration Program

a. The Army continues to modernize its ERP business systems to simplify operations, optimize processes, and provide an accurate, enterprise view of business information to all users. The Army Enter-

prise System Integration Program (AESIP) is a key component of this initiative. AESIP integrates business processes and systems by serving as the enterprise hub for the Army's logistics and financial ERP business systems—

(1) General Fund Enterprise Business System (GFEBS), the Army's financial system.

(2) GCSS–A, the tactical logistics system.

(3) LMP, the national logistics system.

b. AESIP enables integration by linking business processes and data across existing information technology systems. This integration optimizes business processes and supports enterprise-level information requirements. AESIP houses and enables the Army Enterprise Material Master which provides the Army a single authoritative source for material data supporting all Army constituent (modernized and legacy) systems.

c. This Army Enterprise Material Master provides the catalyst to manage, control, create, change, archive, and validate data, while providing a single global view of material, thus providing the basic building blocks for product life cycle management and weapon system management. Implementation of the Enterprise Material Master has enabled inventory management, accountability, pricing, accounting functions, and material requirements planning operations to be seamlessly integrated into the Army Enterprise vision.

d. The AESIP hub translates and integrates data, manages and synchronizes critical master data into the enterprise systems, and houses the management tools for the Army's enterprise business intelligence suite. The business intelligence suite aggregates data from ERP and non-ERP systems, eliminating extraneous transactions for queries and reporting.

e. The ERP central component is the central repository for material master, equipment master, customer master, vendor master, and asset master data for the LMP, GCSS–A, and GFEBS. Acting as the hub to integrate ERP and non-ERP systems, the AESIP system sends and receives live updates via ERP central components across and between programs so the most up-to-date information is accessible at any given time.

11–9. Logistics Modernization Program

a. The LMP sustains, monitors, measures, and improves the modernization of the national level logistics support solution, transitions services from contractor to organic support without performance degradation, delivers new capabilities to achieve business systems information technology and DoD enterprise transition plan objectives, addresses strategic Army and DoD business transformation elements, and supports DoD and Army ERP integration efforts and related end-to-end processes.

b. The LMP supports the Army national level logistics mission to develop, acquire, field, and sustain F equipment and services, so Soldiers have decisive advantage. LMP delivers an enterprise system for the AMC with a fully integrated suite of software and business processes, providing streamlined data on maintenance, repair, and overhaul; planning; finance; acquisition; and weapon systems supplies, spare parts, services, and materiel. LMP also maintains the accountable record for national level conventional ammunition management and its business process execution system. LMP access can be requested through the LMP website at https://www.army.mil/lmp.

11–10. General Fund Enterprise Business System

a. GFEBS develops, acquires, integrates, deploys, and sustains enterprise-wide financial and procurement management capabilities to support Army's current and future missions. GFEBS is the Army's new web-enabled financial, asset, and accounting management system that standardizes, streamlines, and shares critical data across the Regular Army, the ARNG and the USAR. GFEBS uses System Applications Products in data processing software, a commercial off-the-shelf ERP solution.

b. Plans for GFEBS are to negotiate roles and responsibilities with the Army Financial Management and Comptroller by identifying subject matter experts on business-process-related issues, working with users to address problems, analyzing business processes, analyzing system or training problems, and proposing changes to tier II support. GFEBS will also be used to review cost estimates to right-size sustainment and will support the maturation of the functional governance board process.

11–11. Munitions History Program

a. The MHP is a web-based application that supports the Army's ammunition surveillance mission. MHP was designed to collect and store inspection and test data and to track ammunition technical history

quality assurance data. All organizations with an ammunition surveillance mission are required to use MHP to maintain their DSR information where Internet connectivity is available.

b. MHP provides ammunition managers at all levels with a universal data management system that is fully deployable, easy to use, and maximizes flexibility for a true train-once-deploy-anywhere system. MHP can be accessed at https://mhp.redstone.army.mil/. MHP uses public key infrastructure authentication that requires a DoD-approved certificate. All users must register to access MHP and submit a request for the functionality needed. Access requests for most modules are approved by a JMC administrator, while requests for some modules are approved by the module's owner.

c. MHP is an evolving application that is continually enhanced to meet the needs of the ammunition community. MHP is used for the following core ammunition business processes:

(1) Inspection module.
(2) Ammunition Surveillance Information System module.
(3) Notices module.
(4) ACR module.
(5) Worldwide Ammunition Repository Program module.
(6) ASRP module.
(7) DAC application module.
(8) Joint Hazard Classification System.

d. The MHP application has an online help module that explains how to use the various modules and functionality within MHP. These files are maintained and updated as processes are added and enhanced. Refer to the help files and frequently asked questions under the Help menu for specific instructions to use MHP. There is also a forum for MHP users to assist other MHP users with questions regarding MHP or to discuss ammunition-related issues. MHP distance learning training is available through the Army Learning Management System. Register through the Army Training Requirements and Resources System using course number 4E–F64/645–F48. The course provides extensive information to successfully navigate within the MHP website, retrieve DSRs, and create new inspection records and data record headers. Students will become familiar with main menu modules, submenus, links, and other useful features and resources available in MHP.

Section II

Automatic Identification Technology

11–12. Item unique identification

a. Item unique identification (IUID) is a system of marking items delivered to the DoD with unique item identifiers (UIIs), encoded in machine-readable symbols and distinguishing an item from other items. The IUID system is a foundation for enabling DoD to improve readiness, total asset visibility, life cycle item management, and accountability.

b. A UII is a set of data marked on items that is globally unique, unambiguous, robust enough to ensure data information quality throughout life and supportive of multifaceted business applications and users. Eventually, UIIs will functionally replace SNs.

c. DoD requires that all delivered items with an acquisition cost of $5,000 or greater, all serially managed items, and some items meeting other criteria be marked with a UII prior to delivery to the Government (there are few exceptions) if they are acquired as a result of a solicitation issued on or after 1 January 2004. IUID is required for all items meeting the criteria specified in DoDI 8320.04. Contracts used to acquire personal property (items) must contain DFARS 252.211–7003. Contracts involving Government-furnished property must contain DFARS 252.211–7007.

d. There are more than 50 ways to encode a UII. The two most common constructs are construct 1 for items serialized within an enterprise and construct 2 for items serialized within a part, lot, or batch number. For items serialized within an enterprise, a UII is derived by concatenating—that is, linking together in a chain—the enterprise identifier and the SN. For items serialized within a part number, the UII is derived by linking the enterprise identifier, part number, and SN. Each item that requires a UII also requires, at minimum, a mark using a 2D data matrix error correction code 200 symbol applied in a way that ensures the UII remains marked for the entire life cycle of the item.

e. Packaging of uniquely identified items is required to be marked in accordance with MIL–STD–129. It is important to differentiate between the UII and the medium that carries the UII. The UII is data. The data

matrix symbol is one of many automatic identification technologies that can be used to carry that data. A data matrix is not a UII and a UII is not a data matrix.

11–13. Barcoding and military shipping labels

Linear barcodes can provide item identification and document control information for individual munition items and shipments by document number. 2D barcodes and military shipping labels are used when the individual items or the items that make up the document number are consolidated into a larger container (for example, a tri-wall box). They identify the contents of the box or another type of container where individual items are consolidated.

11–14. Radio frequency tracking

a. Once barcodes and military shipping labels are developed for ammunition, radio frequency (RF) tags or International Organization for Standardization 18000–7 tags can be applied to either containers or pallets to provide inside-the-box and near-real-time nodal visibility. There are several variants of RF tags that help track pallet and container movements, including container intrusion-detection devices and security tags equipped with sensors that detect and report breaches through the use of various sensors, such as ones for light, shock, and temperature.

b. There are also several AISs and hardware items that can be used to place container and pallet data onto the RF tag. AISs often used to write ammunition data to RF tags include retail information, Transportation Coordinators'—Automated Information for Movements System II, and wholesale information. As RF-tagged pallets and containers pass within close proximity of RF interrogators, the tags are read and the ITV server updated, thus providing near-real-time nodal ammunition ITV.

c. Shipping data are pulled and pushed from the national ITV server to various systems supporting AISs including NLAC, GCSS–A, and other systems requiring the data. In addition to the national ITV server, there is a trainer server that can be used for training and testing without putting data on the live server.

d. ITV is also supported by the use of handheld interrogators or Intermec CK70. Unlike fixed interrogators, these devices combine the tag-read capability of a fixed interrogator with a keyboard in a handheld, mobile device. As an example, the handheld interrogators can be used to verify receipt of containers and pallets of ammunition at locations where a fixed interrogator may not be installed. They are also capable of searching for specific RF-tagged pallets, containers, and equipment, as well as conducting receipt inventories. Once tags are read using the handheld interrogators, the data may be transferred to a computer for uploading to the ITV server providing worldwide visibility.

11–15. Radio Frequency In-Transit Visibility Tracking Portal

With a CAC, authorized users can log on to the RF–ITV Tracking Portal, the user interface to the ITV server, at https://national.rfitv.army.mil/. The RF–ITV Tracking Portal has a variety of queries that report ITV information. Authorized users will find queries and reports tailored to unit moves, sustainment cargo, commodities, and ammunition. The ammunition queries allow searches by DoDIC, lot number, SN, TCN, tag identification, and NSN. Ammunition can also be tracked by document number, tag identification, container or pallet identification, and satellite device if those items are known. RF–ITV system documentation and training materials also are on the tracking portal, as well as reference features to allow users to look up DoDAAC's, classes of supply, country codes, and ports.

11–16. Satellite tracking

Satellite tracking is often used for truck and rail shipments of sensitive, conventional AA&E. Both military and commercial satellite tracking capability is available.

11–17. Defense Transportation and Tracking System

a. DTTS uses commercial satellite positioning and communications technology, combined with digitized mapping and a 24-hour operations center, to execute its primary mission for the DoD AE and other sensitive material moving via commercial carriers in North America. DTTS initiates rapid emergency response to in-transit mishaps and incidents to minimize their impact and public exposure.

b. Shipping activities order satellite monitoring service DTTS using service shipper systems (Cargo Management Operating System, Distribution Standard System, and GFM) or inputting shipments directly into DTTS/TGIS. Using the service shipper systems, shippers select satellite monitoring service DTTS,

the shipment characteristics, and associated data elements that flow directly to the DTTS/TGIS mapping platform, which provides a suite of tools with the capability to track and organize information, provide weather layers, support drivers, and notify appropriate civil and military offices for emergency response.

c. The DTTS operations center is comprised of the computer-based system and operational procedures that provide improved safety, security, and ITV of AA&E and sensitive shipments within CONUS, Alaska, or Canada as they move from origin to destination on contracted commercial motor vehicles and barges. Coastal barge shipments of AA&E and truck shipments of toxic inhalation hazard rocket fuels are also tracked within DTTS. The operations center uses the installation transportation facility guide's emergency contact information to keep installations abreast of events affecting their shipments.

d. DTTS personnel monitor in-transit shipments via satellite-position reports and programmed exception alerts. There are nearly 50 participating commercial carriers registered to move DoD, DTTS-tracked AA&E and other sensitive material. Drivers can alert the DTTS operations center to mishaps or incidents via an in-cab panic button that provides DTTS with the truck's current location, shipment details, truck description, closest military installation, and nearest police department or 911 call center. DTTS contacts the Army Watch for EOD response in CONUS on behalf of the military Services and regardless of the DoD shipper.

e. In the event of a panic button alert from a driver, the DTTS program manager's office reports and facilitates an emergency response. Ready access to preloaded shipment data allows the DTTS program manager's office staff to coordinate with local emergency response personnel to inform them of the type of ordnance on board, its hazard class, and the total net explosive weight. When responding to an emergency situation, the DTTS staff implements procedures to attain real-time ITV of the threatened shipment and coordinates with appropriate emergency response personnel to mitigate the situation.

f. DTTS personnel support drivers during mechanical breakdowns to help maintain oversight of the load, provide police escort, or offer traffic control for trucks stranded along the side of the highway. DTTS personnel assist drivers in obtaining safe haven during emergency situations or conditions, and they assist drivers obtaining installation access for after-hours arrivals and secure hold at destination installations.

g. When shipment details released by service shipping systems reach the DTTS software server, an automatic REPSHIP is triggered to the destination activity. Automatic REPSHIPs alert shipping activities to anticipate and prepare for the delivery.

11–18. Joint Battle Command—Platform

a. The Joint Battle Command—Platform (JBC–P), part of the Army joint capability release, is a network battle command information system that enables units to share near-real-time friendly and enemy situational awareness information, operational maps and graphics, and C2 messages. CAC-authorized users can request access to the PM JBC–P Readiness Center at https://jbc-p.army.mil/jbcp/menu.cfm.

b. The Army and Marine Corps intend JBC–P to achieve platform-level interoperability for ground vehicles, dismounted Soldiers and Marines, and aviation assets operating in land, littoral, and joint operational environments. JBC–P is fielded in both mobile and command post versions, and JBC–P communications is supported by Blue Force Tracker 2 satellite for mobile operations and the tactical Internet for command post operations.

c. Army, Marine Corps, and SOF commanders use JBC–P to provide integrated, on-the-move, near-real-time, battle command information and situational awareness from brigade to maneuver platform to dismounted Soldiers and Marines. JBC–P provides a link between command, maneuver, and logistics networks.

d. The JBC–P logistics capability operates on the unclassified side of the network. JBC–P logistics platforms use RFID interrogators to collect and upload cargo data into the RFID ITV server for near-real-time worldwide visibility. Operational and sustainment commanders can plan, coordinate, and track cargo and sustainment services in near-real-time, significantly enhancing the overall common operating picture. Logistics vehicles—including freight haulers, heavy expanded mobility tactical trucks, and fuel tankers that transport ammunition on the battlefield in support of maneuver formations—will be equipped with joint capability release logistics.

11–19. Commercial transport satellite tracking

Depending on the location, transportation mode, and specific ammunition that are moving, satellite tracking via commercial systems is available. Commercial satellite tracking devices are often organic to the

transport mode (truck, rail, vessel, and aircraft). In the absence of or to augment available organic systems, an add-on satellite tracking device may be affixed to the transport, ammunition container, or pallet.

11–20. Commercial vessel satellite tracking

Commercial vessel satellite tracking is accomplished using the U.S. Department of Homeland Security's AIS. This AIS provides a shipboard radar or an electronic chart display that includes a symbol for every significant ship within radio range, each as desired with a velocity vector (indicating speed and heading). Each ship symbol can reflect the actual size of the ship with position to Global Positioning System or differential Global Positioning System accuracy. The AIS provides a ship symbol, through which the ship name, course, speed, classification, call sign, registration number, Maritime Mobile Service Identity, and other information can be obtained. Display information previously available only to modern vessel traffic service operations centers now is available to every AIS user through the website at https://www.navcen.uscg.gov/?pagename=aismain.

11–21. Munitions Information Disposition Action System

The Munitions Information Disposition Action System is a pure knowledge management system, that details munitions items to meet requirements of Title 40, Code of Federal Regulations (40 CFR). Characterization is the knowledge management process that is used to break down munitions items to identify the recoverable components and identify those items that generate environmental issues upon demilitarization (Military Munitions Rule and Resource Conservation and Recovery Act). This process involves taking TDPs, specifications, material safety data sheets, technical documentation, and experiential learning and formatting them into a usable knowledge source for the enterprise.

Chapter 12
Ammunition Management

Section I

Managing Operational and Combat Load Ammunition

12–1. Overview

a. Procedures in this chapter apply to the Regular Army, ARNG, and USAR. All Army organizations, elements, and activities that keep an ammunition SRA—including posts, camps, and installations—maintain accountable records for ammunition stock, which includes training ammunition. Organizations that consume ammunition will use the procedures in this chapter to account for ammunition and missiles at the user level. The Brigade Ammunition Office is not authorized a stock records account, and it is not authorized to use this chapter to maintain accountability of ammunition. Therefore, that office's accountability must be maintained in accordance with property book procedures as outlined in AR 700–28, AR 735–5, and DA Pam 710–2–1.

b. Ammunition is authorized, issued, and expended based on the intended purpose: CL, OPL, training, and test. Ammunition is not considered expended unless actually consumed. Using ammunition for other than the intended purpose circumvents current ammunition management policy. As such, an AR 15–6 investigation will be initiated by the commanders on subordinate organizations using ammunition for other than its intended purpose (that is, expend CL for training).

c. For clarification or deviation authority, send correspondence through the chain of command to DCS, G–4 (DALO–SPM), 500 Army Pentagon, Washington, DC 20310–0500, for approval and dissemination.

12–2. Operational and combat load ammunition

a. General. OPL and CL ammunition will be accounted for at each level of distribution down to the individual. ACOMs designate the units which must keep CLs of class V (ammunition). ACOMs will determine what CL requirements are required to support specific missions. CL requirements are calculated in TAMIS and units and commands are responsible for validating these requirements.

b. Responsibility. Assign responsibility for CL and OPL ammunition to individuals using standard property book and hand receipt procedures found in DA Pam 710–2–1.

c. Requirements. Organizations will use the requirements module in TAMIS to submit CL requirements. CL and OPL requirements are submitted through their command to HQDA in accordance with the

annual requirements and stockage objective guidance that is published by DAMO–TRA. Organizations will not submit a request for issue of ammunition without an approved authorization within TAMIS. Ammunition that are requested and issued will be accounted for, and it is the responsibility of the organization to report deficiencies. In the ARNG, the state's adjutant general designates those units authorized to maintain ammunition OPL. TAMIS provides by organization authorizations for type and quantity of ammunition.

d. Requesting. Use DA Form 581 (Request for Issue and Turn-In of Ammunition) or DA Form 581–SG (Request for Issue and Turn-In of Ammunition) in SAAS to request ammunition authorization to request or receipt for ammunition.

(1) On appointment, commanders or accountable officers will send a copy of assumption of command orders or appointing memorandum to each ammunition storage area from which ammunition are drawn. This authorizes the commander or accountable officer to request or receipt for supplies.

(2) DA Form 1687 (Notice of Delegation of Authority - Receipt for Supplies) is used when an accountable or responsible person wants to designate personnel as authorized representatives to request and sign for ammunition at the user level. DA Form 1687 will be used to request and receipt all ammunition.

(3) DA Form 1687 will require either a handwritten or digital signature (not both) for the identified authorized representatives.

e. Accountability. AR 735–5 and AR 700–28 require all class V to be placed on the organizational property book upon issue from the supporting ammunition supply activity or receipt from another organization (including ammunition issued on DA Form 581 and ammunition shipped to a unit via DD Form 1348 (DoD Single Line Item Requisition System Document (Manual)) or a lateral transfer from another unit). The only exception is ammunition used in training (that is, training ammunition) will be accounted for upon issue from the ammunition supply activity until expended and the issue document is reconciled with the ammunition supply activity. Organizations will maintain 100-percent accountability of ammunition either expended or returned to the supporting ammunition supply activity as outlined in section III of this chapter. An AR 15–6 investigation will be initiated for ammunition accounting discrepancies in accordance with AR 190–11 when there is a shortage between the quantity of unexpended ammunition turned-in and the quantity issued less expended. Ammunition utilized for testing that is not currently managed on GCSS–A will be reported weekly to NLAC.

(1) *Operational load.* Ammunition is authorized in organizations to support or conduct a broad range of day-to-day operational missions (for example, installation EOD, special reaction team, ceremonies, quarry operations, guard mission, force protection, and SOF pre-deployment site surveys). Follow standard accountability procedures outlined in DA Pam 710–2–1 for ammunition stored in the arms room.

(2) *Combat load.* The standard quantity and type of munitions an individual weapon, crew-served weapon, or a weapons platform and its associated munitions carriers are designed to hold. CLs for bulk munitions (grenades, signals, and so forth) are not associated with a weapon or weapons platform. Bulk munitions CLs are assigned by SRC and reflect the quantity of munitions required to give units capability and flexibility. CLs support the initiation of contingency and combat operations. Units are required to have appropriate CL on hand or on request at all times. Ammunition CL quantities are specified in rounds, units, or weight as appropriate. Account for on-hand CL ammunition on the unit property book. Follow standard accountability procedures found in DA Pam 710–2–1. Records of responsibility are also required.

(a) When a unit's CL is stored at the supporting ASP and the ASP retains accountability for the ammunition, record in the property book the document number from DA Form 581 or DA Form 581–SG request and the location of the stocks reserved for the unit's CL.

(b) The ASP may provide secure storage to a unit when ammunition is issued.

1. Owning units will provide an access roster for individuals authorized to access the secured storage location, ensuring that personnel granted access have been screened in accordance with AR 190–13.

2. Provide updates to the ASP when ammunition is removed or added to the storage location within 24 hours.

3. Secure storage availability and location will be determined by the ASP accountable officer.

(c) The property book officer (PBO) will transfer responsibility for the ammunition to an individual who will store and maintain it by using DA Form 2062 (Hand Receipt/Annex Number) as outlined in DA Pam 710–2–1.

(d) Use the policies listed in AR 735–5 to adjust the property book if ammunition is expended.

f. Cartridge actuated devices and propellant actuated devices accountability. These items are CL V under the Federal Supply Class 1377 cartridge and propellant actuated devices and components. All CL

V operational and CLs require formal accountability on the APSR throughout their life cycle. Units will place CADs and PADs on the property book like any other OPL CL V assets. CADs and PADs will appear on the monthly AA&E portion of the sensitive items inventory. These items are not considered expended once installed on the aircraft.

(1) Once installed, TB 9–1300–385 requires tracking CADs and PADs for shelf life, installed life, and service life in the aircraft logbooks, but this is a maintenance action and does not replace the requirement to maintain property book accountability. According to AR 750–1, "for cartridge actuated devices and propellant actuated devices, DoD identification code, lot numbers, shelf life, and install date information is required to be maintained in the electronic aircraft logbook in accordance with AR 5–13." Depending on the circumstances, contingency service life extension may be granted in accordance with regulatory guidance. DA Form 2408–18 (Equipment Inspection List) includes CADs and PADs checks to ensure items are present, serviceable, and within tolerance for shelf life.

(2) Performing the sensitive items inventory does not have to involve an additional physical inspection of installed devices beyond the routine DA Form 2408–18 equipment inspections. The commander designates individuals to perform the weapons and ammunition inventory by AR 700–28 and DA Pam 710–2–1 can reconcile the inventory listing with aircraft logbook records showing the last inspection of installed CADs and PADs. If there is any quantity issued to the unit but not installed on an aircraft, those items still require a physical inventory.

(3) CADs and PADs may be required for shelf life testing or engineering investigation. Units are not authorized to discard or dispose of expired of unserviceable CADs. TB 9–1300–385 requires CADs and PADs to be turned in to their supporting ASP following procedures in the pamphlet, whether expended in use or expired before use. If CADs and PADs are expended, documentation of the expenditure is also required. The unit will sue documents from turn-in to the ASP to remove items from the property book.

Section II

Managing Nonstandard Ammunition

12–3. Validation of nonstandard ammunition requirements

Submit requirements to G–37/TRA no later than 15 September of each year to meet the standard ammunition requirements submission deadline. Commands that require emergency, high priority, nonstandard ammunition for both training and operations will coordinate requests for these ammunition through G–37/TRA with a copy furnished to JMC. This process is outlined in AR 5–13 and is not intended to circumvent the ONS process.

12–4. Transportation

a. In the continental United States. If the nonstandard items have a DoD final hazard classification and are listed in the Joint Hazard Classification System database, then normal shipment procedures apply. Changes to the original packaging invalidates the hazard classification and requires reassessment.

(1) If the nonstandard items have a Department of Transportation (DOT)-assigned reference number (sometimes called an ex number), then shipments can be made using the hazard classification associated with the DOT reference number.

(2) If nonstandard items have an interim hazard classification, carry a copy of the interim hazard classification and DOT Special Permit–15448 with the shipping documentation on board each conveyance used to transport the nonstandard items.

b. Outside the continental United States. Interim hazard classifications are not recognized for international shipments by commercial carriers and may not be recognized by host nations. When shipping AE without a final DoD hazard classification internationally by commercial carrier, shipments require a DOT classification of explosives with a DOT-assigned number. As outlined in TB 700–2, interim hazard classifications and justifications for international shipments must accompany a request for a DOT classification of explosives with DOT-assigned number, which may be issued for a period of up to 2 years.

12–5. Inventory

a. ACOMs, ASCCs, and DRUs will inventory and report existing stocks of nonstandard ammunition by lot number, nomenclature (for example, type and caliber), quantity, manufacturer, source information, and SN (if available) no later than 1 January of each year to DCS, G–3/5/7 (DAMO–TRA).

b. Each organization is required to report their inventory to the servicing installation to ensure proper storage and accountability.

Section III

Managing Training Ammunition

12–6. Training ammunition

a. Responsibility. This section prescribes procedures for assigning and maintaining responsibility for training ammunition. Use DA Form 5515 (Training Ammunition Control Document) and DA Form 5515–1 (Training Ammunition Control Document Continuation Sheet) as hand receipts to assign responsibility for ammunition. These forms are available on the Army Publishing Directorate website.

b. Authorization. AR 5–13 authorizes the quantity of ammunition that a unit may receive of conventional ammunition and missiles in support of readiness training for combat once the requirements are validated. DA Pam 350–38 provides requirements-computation data for training ammunition and missiles based on the number of weapons systems assigned, readiness levels, and quantities of ammunition needed to sustain Soldier and crew proficiency. Use the models provided in DA Pam 350–38 to compute the amount of ammunition and missiles needed to support training standards. Training ammunition requirements for deployed organizations will be determined utilizing contingency tables within DA Pam 350–38.

c. Accountability. This section prescribes procedures for maintaining accountability and visibility of ammunition for training events. Units will place training ammunition on the property book for training event lasting 30 days or more.

12–7. Training ammunition management and control procedures

a. Units that request and receive ammunition from an ASP must maintain training ammunition management and control documents. Documents consist of—

(1) DA Form 5203 (DoDIC Master/Lot Locator Record).
(2) DA Form 581 (Request for Issue and Turn-In of Ammunition) or DA Form 581–SG.
(3) DA Form 581–1 (Request for Issue and Turn-In of Ammunition Continuation Sheet).
(4) DA Form 3020 (Magazine Data Card).
(5) DA Form 3151 (Ammunition Stores Slip).
(6) DA Form 5515 (Training Ammunition Control Document).
(7) DA Form 5515–1 (Training Ammunition Control Document Continuation Sheet).
(8) DA Form 5811 (Certificate - Lost or Damaged Class 5 Ammunition Items).
(9) DA Form 5692 (Ammunition Consumption Certificate).
(10) DA Form 2064 (Document Register for Supply Actions).
(11) MFDR if applicable, outlined in appendix D and available on the Army Publishing Directorate website.

b. Use these documents to manage the training ammunition and missile authorization, to control issue of ammunition and missiles, and so unexpended ammunition, missiles, and residue is controlled until return to the ASP.

c. Use TAMIS to review and validate the annual training ammunition requirement. DA Pam 350–38 (STRAC) and a unit's modification table of organization and equipment (TOE) or table of distribution and allowances (TDA) is the basis for a unit's annual training ammunition requirement.

d. TAMIS manages a balance of remaining authorizations to support training for the summary report. TAMIS does this by deducting from the current authorization and issues from the ASP as they occur.

12–8. Issuing training ammunition to users

a. Use DA Form 5515 (Training Ammunition Control Document) as a hand receipt for issuing ammunition in various quantities from a parent unit (battalions) to a subordinate unit (companies), from one supervisory level to another, or from one person to several recipients. Units are not allowed to transfer ammunition from one unit to another outside of their battalion. Also use it as a turn-in document for unexpended ammunition and residue when the training event is completed. Use a different DA Form 5515 (Training Ammunition Control Document) for each issue. Additional sub-issues may be made using the

second part of DA Form 5515 (Training Ammunition Control Document) and additional DA Form 5515 (Training Ammunition Control Document).

b. The organization that receives ammunition through DA Form 581 will maintain a copy of each sub-issue DA Form 5515 to provide an audit trail of expenditures of all ammunition down to the first-line supervisor and return. Attach a copy of each supporting DA Form 5515 to the issue DA Form 581. The total of the issues cannot exceed total quantities on hand in the unit. Each level that receives or issues ammunition must keep a copy of the issue DA Form 5515; use those on hand in the unit and use this copy to simplify ammunition and residue turn-in. Do not use DA Form 5515 to issue ammunition lower than the first-line supervisor (a sergeant or the equivalent).

(1) The activity that maintains DA Form 5203 for ammunition received from the ASP assigns a document number to DA Form 5515 from the expendable items document register. On the document register, show the date issued, the DoDIC, and the nomenclature of the first item on DA Form 5515.

(2) Post DA Form 5203 (DoDIC Master/Lot Locator Record), as appropriate, for all items on DA Form 5515 (Training Ammunition Control Document) with the date issued, document number, unit designation, quantity, and remaining on-hand balance. Use DA Form 5515 as a hand receipt to pass responsibility to subordinate levels. For example, an infantry-company supply sergeant who receives ammunition on DA Form 5515 from the battalion S–4 may use another DA Form 5515 to sub-hand receipt the ammunition to the platoon leader, squad leader, or the range noncommissioned officer in charge who will control ammunition use. Each level that uses DA Form 5515 perpetuates the document number assigned to the form by the level that drew the ammunition from the ASP on DA Form 581. The intent of this action is to maintain signature accountability to a supervisory level closest to the Soldier to ensure proper control and consumption of ammunition and to simplify collection of residue after the ammunition is expended.

(3) Brief Soldiers on their responsibility for authorized use, turn-in, and reconciliation of ammunition items issued to them. Give this briefing both before and immediately following any training activity that includes ammunition. DA Form 5515 contains the required briefing and debriefing certificates. Open boxes of ammunition only as needed. Returning live ammunition is easier when only the number of boxes required to conduct training are opened. Problems occur when more ammunition than needed is opened and lot number integrity is lost. Upon completion of each training event, ensure that all personnel turn in any ammunition or residue they have in their possession.

(4) After all personnel have turned in ammunition and residue, conduct a safety inspection to ensure that they do not have in their possession, in their equipment, or on their vehicles any live ammunition or residue.

(5) Inventory the remaining ammunition and residue. Repack the live ammunition as close as possible to its original configuration, maintaining lot number integrity. Complete DA Form 5515 by annotating the appropriate blocks. If the nature of the training conducted (for example, field training exercise, joint training exercise, or live fire exercise) prevents collecting all residue, explain the circumstances on DA Form 5515.

(6) Opened ammunition containers will be inspected by a sergeant first class or higher from the unit returning the items to ensure that lot numbers agree with the lot numbers printed on the container and that all ammunition components are present and properly repacked. Place an ammunition inspection certificate, signed by a sergeant first class or higher, from the unit returning the items in each container certifying that the information listed is correct. Final determination of the condition of ammunition, that is, serviceable or unserviceable, rests with ASP personnel.

(7) Pack supplementary charges removed from artillery projectiles prior to assembling proximity fuzes to projectiles in the containers from which the proximity fuzes were removed. The containers should be properly marked and will be returned to the ASP.

c. Regarding issuing training ammunition to allied countries within CONUS, allied countries that will train in the United States will purchase their ammunition through the ACSA or FMS. The unit that is serving as the liaison for the host nation is responsible for coordinating with the ASCC or higher echelon who will coordinate with DCS, G–4 to ensure requested items are in excess to the Army's requirement and to ensure that the items are not restricted or prohibited.

(1) Each country will be assigned unique identifying characters that will resemble a DoDAAC/UIC using the first three letters of the country ending with 1R2 for the DoDAAC and 1RA for the UIC (example DoDAAC/UIC for Thailand is THA1R2/THA1RA) to process the shipment in the APSR to maintain auditable records.

(2) The ASP will process and transfer ammunition to a non-U.S. entity using the shipment process, in accordance with the material release order and document numbers provided by the supporting material management. The MRO assigns a document number, specifies the ASP, country, organization, primary point of contact, DoDIC, quantity to be released, and the individuals identified to receive the items.

(3) The gaining ASP will process the shipment or transfer of the ammunition as outlined in the MRO, and the ASP will maintain a copy of DD Form 1348 (DoD Single Line Item Requisition System Document (Manual)) as an accountable record.

d. The following are the minimum criteria that must be met prior to being processed:

(1) Implementing arrangements or support agreements. Original agreement negotiated between U.S. and allied nation.

(2) Date of order. Date which the order or agreement was initiated between two allied nations.

(3) Designation and address of office to be billed. The designated billing office.

(4) Numerical listing of stock numbers of items (if any). A number assigned under the Federal Cataloging System or the North Atlantic Treaty Organization Codification of Equipment System (not required if a proper description is available).

(5) Quantity and description of materiel or services requested. The materiel or services requested.

(6) Quantity furnished (received). The quantity of item received by receiving activity.

(7) Unit of measurement. The quantity of an item such as each, dozen, gallon, pound, yard, and so forth.

(8) Unit price in currency of billing country. The price based on unit of issue in the currency of the billing country. For the DoD, this usually is when the item is dropped from inventory.

(9) Total price billed per item. Dollar value of each line item resulting from quantity furnished multiplied by unit price.

(10) Currency of billing country. Currency of the country providing the logistics support, supplies, or services (LSSS).

(11) Total order amount expressed in currency of billing country. Extended dollar value of all line items added together.

(12) Name, signature, and title of authorized ordering or requisitions representative. The signature and title of authorized ordering or requisitioning representative.

(13) Payee to be designated on remittance. Who will receive the payment after proper fulfillment of the LSSS agreed upon.

(14) Designation and address of office to receive remittance. Location of the unit who will be receiving the LSSS that is requested.

(15) Recipient's signature acknowledging service or supplies received on the order or requisition or a separate supplementary document. Signature of the recipient of the materiel or services.

(16) Document number of order or requisition. ACSA Global Automated Tracking and Reporting System order number (for example, NSPA–17241–001).

(17) Receiving organization. Organization to receive the LSSS.

(18) Issuing organization. Organization to provide the LSSS.

(19) Transaction type. Indicates whether the transaction is cash.

(20) Fund citation or certification of availability of funds when applicable under parties' procedures. The funding source when advance payments are to be provided or if funding is not to be paid in advance, include a certification that funds are available.

(21) Date and place of original transfer. In the case of an exchange transaction, a replacement schedule including time and place of replacement transfer. Date and place or estimated date and place as appropriate.

(22) Name, signature, and title of authorized acceptance official. The name, title, and signature of the authorized accepting official for the ACSA order. Person who agreed to provide LSSS.

(23) Additional special requirement, if any, such as transportation, packaging, and so forth. Show any additional needs of the receiving organization, if applicable (not always required).

(24) Limitation of Government liability. Show the maximum liability of the ordering or receiving organization.

(25) Name, signature, date, and title of supplying party official who actually issues supplies or services. Name, title, signature and date of the authorized issuing official.

12–9. User return of ammunition and residue

The activity that first issued the ammunition on DA Form 5515 reconciles the quantities of ammunition and residue returned against the quantity originally issued by—

a. Noting all shortages.

b. Verifying a statement is entered on DA Form 5515 to explain the circumstances causing the shortages.

c. Ensuring the statements on the form are signed and dated.

d. Signing DA Form 5515, confirming that receipt of the ammunition and residue turned in and that the residue does not contain any live rounds, primers, explosives, or other extraneous material.

e. Posting DA Form 5515 to the document register and annotating the issue transaction as completed, including the date completed.

f. Posting the quantity of live rounds received to the appropriate DA Form 5203 as gains.

12–10. Specially controlled training ammunition

a. Expenditure certification. This certification is in addition to requirements in paragraph 12–15.

(1) The unit range officer in charge (a sergeant or higher) will sign and date DA Form 581 or DA Form 5515 and control all required items identified by the APSR.

(2) The unit range safety officer (a sergeant or higher) will certify quantity drawn, quantity to be returned, and quantity consumed in training at the range. A second lieutenant or higher will perform the unit range safety officer duties at any training event requiring expenditure of explosives at locations other than ranges on Army installations or when CAT I and II items are used in live fire exercises.

(3) The unit range safety officer will personally observe placement of charges and actual detonation and certify the quantity of all items expended. Certification will be completed on DA Form 5692 (Ammunition Consumption Certificate) (see fig 12–1 for a sample DA Form 5692).

(4) Attach the original copy of each certification of expenditure to the turn-in document (DA Form 581 or DA Form 5515). The unit range safety officer will sign and date expenditure statement placed in block 30 of DA Form 581. Documents will be provided to the ASP during the turn-in and reconciliation process. The ASP will not clear units without the required certifications and signatures.

AMMUNITION CONSUMPTION CERTIFICATE

For use of this form, see DA PAM 700-16; the proponent agency is DCS, G-4.

UNIT		RANGE AND LOCATION
Alpha Company		Range 35 Fort Bragg, NC
DOCUMENT NO.	DATE	
Number from your issue document	20210506	

ITEM	DODIC	NOMENCLATURE	LOT NUMBER	QUANTITY CONSUMED
1	A059	CTG, 5.56MM Ball M855 CLPD	TAA11E005-070	1680
		----------LAST ITEM----------		
		The Unit Range Safety Officer (RSO) will certify quantity drawn, quantity to be returned, and		
		quantity consumed.		
		The Unit RSO will personally observe placement of charges, actual detonation, and certify the quantity		
		of all items expended. Certification will be validated using this form.		

CERTIFYING OFFICIAL

I certify that I saw the above items consumed during training on *(indicate date)* →	DATE 20210506
NAME *(Typed or Printed)* Jane Smith	SIGNATURE DIGITAL SIGNATURE 123456789
UNIT Alpha Company	POSITION Range Safety Officer

DA FORM 5692, JUN 2021 PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE. APD AEM v1.00ES

Figure 12–1. DA Form 5692 (Ammunition Consumption Certificate)

b. Demolition plan.

(1) A copy of the unit's demolition plan will be provided to range operations when the unit requests use of the range for training purposes. Use FM 3–34.82 for instructions when preparing and submitting to range operations prior to using training ranges.

(2) The training unit's demolition reconnaissance report must be approved one level higher than the unit requesting explosives, but not lower than battalion level.

(3) Use this plan check against explosives reported as expended.

(a) Range operations will retain all demolition reconnaissance reports.

(b) Units conducting training will provide range operations with the following: time the range was opened and closed, type of training, type and amount of explosives consumed, firing system types and amounts consumed, and a copy of the issue DA Form 581. This information will be provided to range operations at the time the range is closed. Range operations will record this information in a daily log.

(c) Range operations will compare amounts reported as consumed with the amounts indicated on the training unit's demolition reconnaissance report. Any differences will be challenged within 1 working day.

Section IV

Request, Receive, and Turn-in Ammunition

12–11. Requesting ammunition

a. Organizations will request ammunition in TAMIS using a TAMIS-generated DA Form 581–SG. Detailed instructions for preparing DA Form 581 or DA Form 581–SG to request ammunition are in figure 12–2. Prepare a separate DA Form 581 or DA Form 581–SG for each training or test event code as outlined in AR 5–13. Training event codes are listed in DA Pam 350–38.

REQUEST FOR ISSUE AND TURN-IN OF AMMUNITION

For use of this form, see DA PAM 700-16; the proponent agency is DCS, G-4.

1. ISSUE ☒ / 2. TURN-IN ☐	3. DOCUMENT NO. W12ABC61651000	4. LOCAL USE	5. PAGE 1 OF 1	6. FOR LOCAL USE	
7. SEND TO ASP FORT CAMPBELL, KY	8. REQUEST FROM 101ST SUS BDE FOR CAMPBELL, KY	9. DATE MATERIEL REQUIRED (YYYYMMDD) 20210601	10. PRIORITY	11. ALLOCATION PERIOD 4TH QUARTER	12. DODACC W12ABC
		13a. REQUESTED BY PATRICK M. SMITH,MSG	13b. DATE (YYYYMMDD) 20210512	13c. SIGNATURE Digital Signature DIGITAL SIGNATURE 123456789	
		14a. APPROVED BY SUSAN E. AMMO, MAJ	14b. DATE (YYYYMMDD) 20210512	14c. SIGNATURE Digital Signature DIGITAL SIGNATURE 123456789	

15. ITEM	16. DOCIC	17. NSN	18. NOMENCLATURE	19. UI	20. QTY REQUESTED/ TURNED-IN	21. TEC	22. ACTION CODE	23. QTY ISSUED/ RECEIVED	24. LOT/SERIAL NO.	25. CC	26. POSTED BY	27. DATE (YYYYMMDD)
1	A059	1305-01-155-5459	CTG, 5.56MM BALL M855 CLPD	EA	1680	TRS	TIS		LB-91L086-152			
2	A059	1305-01-155-5459	CTG, 5.56MM BALL M855 CLPD	EA	1680	TRS	TIS		LC-04L380-211			
3	A064	1305-01-156-7584	CTG, 5.56MM BALL M855/I TR M856	EA	1680	TRS	TIS		LC87K69L218			
4	A064	1305-01-156-7584	CTG, 5.56MM BALL M855/I TR M856	EA	1680	TRS	TIS		LC-88M691L295			
5	A131	1305-00-143-7163	CTG, 7.62MM BALL M80/I TR M62	EA	1680	TRS	TIS		HIB-L-500-29			
6	A131	1305-00-143-7163	CTG, 7.62MM BALL M80/I TR M62	EA	1680	TRS	TIS		LC-LI40125			
7	A131	1305-00-143-7163	CTG, 7.62MM BALL M80/I TR M62	EA	1680	TRS	TIS		LC-89F601Y620			

28. REMARKS

Remarks for Training Document:
- Explain the type of training to be conducted
- Training dates
- Requested issue date

POC: Name, phone number, and email address
AR 710-2
Remarks for Combat Load:
-Explain reason for issue
-The above items will be accounted for on the property book IAW AR 710-2 and DA PAM 700-16
- Items listed above are not authorized from training

POC: Name, phone number, and email address

29. RELATED DOCUMENT SERIAL NOS.

30a. ISSUED BY	30b. SIGNATURE	30c. DATE (YYYYMMDD)	31a. RECEIVED BY	31b. SIGNATURE	31c. DATE (YYYYMMDD)	32. TAMIS CONTROL NO.
RON B. SNUFFY	Digital Signature DIGITAL SIGNATURE 123456789	20210512	SAMUEL C. JONES	Digital Signature DIGITAL SIGNATURE 123456789	20210512	

DA FORM 581, JUN 2021 PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE. APD AEM v1.00ES

Figure 12–2. DA Form 581 (Request for Issue and Turn-In of Ammunition), regarding request for issue

b. If manual procedures are utilized, the PBOs or supply officer will assign DA Form 581 a document number from the expendable document register. If automated procedures are used, a computer-generated document number will be generated.

c. Have the unit commander or DA Form 1687-designated representative sign and date DA Form 581.

d. Keep one copy of DA Form 581 or DA Form 581–1 (Request for Issue and Turn-In of Ammunition Continuation Sheet), if applicable, in the suspense file. Forward all other copies through the authenticating officer to the ASP within the timeframe and in the number of copies specified in the ASPs operating procedures (usually 3 days prior to the requested pickup date).

e. Request for ammunition on DA Form 581 should list no more than seven DoDICs on each page. If the ammunition requested is for overhead fire, enter in the remarks block of DA Form 581 the statement, "To be used for overhead fire."

f. Requests for pickup of ammunition are approved by automated means, by the approving commander's signature, or by DA Form 1687-designated approving official. ACOMs will establish procedures for a records check to be performed by local Provost Marshal Office in accordance with AR 190–11 on each individual authorized to requisition or receipt for AEs. Both the requesting and approving authorities provide DA Form 1687 to the ASP. The approval procedure gives commanders control of ammunition issues to their units. Approval is based on units not exceeding their sub authorization. The ASP will verify that the authorized signatures of the requesting and approving officials appear on each request.

g. Unit commanders are responsible for security and control of the unit's ammunition program and for ensuring that only authorized personnel will receipt for class V drawn from any ASP.

(1) Ensure DA Form 1687 is valid for a period the approving authority expects to remain in their position or not to exceed 1 year from the date annotated in the date box located in the top right corner of the form, whichever is less. Review the dates quarterly for accuracy.

(2) Commanders authorize officers, sergeant and higher and civilian equivalents, to sign requests for pickup of ammunition. Only persons in the rank of sergeant and higher and civilian equivalents are authorized to receipt for CAT I and II AA&E per AR 190–11. Commanders will designate a responsible person to receipt for CAT III and IV ammunition.

(3) Give two copies of DA Form 1687 to the ASP and one copy to the authenticating officer. Attach a copy of the commander's assumption of command orders or battalion supply officer or PBO orders to each of the signature cards.

12–12. Receiving ammunition

a. Prior to ammunition pickup, the ASP will use DD Form 626 (Motor Vehicle Inspection (Transporting Hazardous Materials)) to verify the selected vehicles have passed a stringent safety inspection. Vehicle inspection criteria is also explained in the supporting ASP's SOP.

(1) At the ASP, a civilian QASAS, military personnel, ammunition warrant officer (890A), or other qualified person inspects unit vehicles used to pickup ammunition to ensure the vehicles are safe to transport ammunition. The unit may not substitute other vehicles to transport live ammunition unless the substitute vehicles have a current DD Form 626 issued by the ASP.

(2) DOT regulations and local public laws govern transportation of ammunition on public highways. The ASP will provide the driver with a completed DD Form 2890 (DoD Multimodal Dangerous Goods Declaration) when vehicles are loaded with ammunition for movement over public highways or are travelling on a military installation considered to have public access (see DTR 4500.9–R-Part II), prior to leaving the ASP. DD Form 2890 must be completed by a QASAS or installation-transportation-office-qualified individual or unit personnel that are certified with Ammo 62 (Technical Transportation of Hazardous Materials) in accordance with DTR 4500.9–R-Part II when units are moving internal assets.

Note. This certification is good for 2 years only, and individuals will retake Ammo 62 or the refresher course, Ammo 37 (General Transportation of Hazardous Materials Refresher), every 2 years. Do not use vehicles to transport ammunition on public highways or open installations without having DD Form 626 and DD Form 2890. Vehicles transporting inert ammunition items or inert residue do not require DD Form 626 or DD Form 2890.

(3) Requirements for the security of ammunition and missiles are prescribed in AR 190–11. When storing ammunition, follow the safety procedures in DA Pam 385–64 unless specifically exempted or when host nation laws take precedence.

b. Pickup personnel report to the ASP customer service clerk. Give the clerk the unit suspense copy of DA Form 581 and request inspection of the vehicles that will transport the ammunition.

c. Follow the ASP checker (escort) to the ammunition storage area.

d. Inventory, load, block, and brace the ammunition selected by the ASP checker. The inventory must verify quantities and lot numbers.

e. Upon completion of issue, the ASA (ALT) will ensure all issue documents (DA Form 581 and DA Form 3151) have legible handwritten or digital signatures and date of all personnel who issued and received ammunition.

f. Return loaded vehicles to the vehicle assembly area for inspection by QASAS personnel for proper loading, blocking, bracing, and safety (including placards).

g. Accompany the ASP checker to the ASP customer service clerk who will complete the issue blocks of DA Form 581. Sign and date the receipt block of DA Form 581. Obtain copies of DA Form 581, DA Form 3151, DD Form 626, and, if necessary, DD Form 2890. Ensure that any restrictions pertaining to the use of the ammunition issued are entered on DA Form 3151 and DA Form 581 in clear and concise language.

h. When the ammunition is received, the unit will post the issue to the unit document register (DA Form 2064) by completing the date and quantity received as shown on DA Form 581. File the completed DA Form 581 in the unit voucher file.

12–13. Turn-in live and residue ammunition

a. Prepare separate DA Forms 581 to turn in live ammunition and residue (see figs 12–3 and 12–4). Assign document numbers to DA Form 581 from the expendable items document register. Requests for live ammunition and residue turn-in require signatures in blocks 13 and 14 of DA Form 581, and date blocks 13b and 14b when the following criteria are met—

(1) The original ammunition issue document was not processed or approved through TAMIS.

(2) Controlled item inventory code I or II ammunition items were issued on the original document.

(3) Turn-in of live ammunition is formally accounted for on the organizational property book (for example, CL and OPL), as outlined in AR 700–28.

REQUEST FOR ISSUE AND TURN-IN OF AMMUNITION
For use of this form, see DA PAM 700-16; the proponent agency is DCS, G-4.

1. ISSUE ☐ 2. TURN-IN ☒ | 3. DOCUMENT NO. W12ABC61701000 | 4. LOCAL USE | 5. PAGE 1 OF 1 | 6. FOR LOCAL USE

7. SEND TO	8. REQUEST FROM	9. DATE MATERIEL REQUIRED (YYYYMMDD)	10. PRIORITY	11. ALLOCATION PERIOD	12. DODACC
ASP FORT CAMPBELL, KY	101ST SUS BDE FOR CAMPBELL, KY	20210615		4TH QUARTER	W12ABC

13a. REQUESTED BY	13b. DATE (YYYYMMDD)	13c. SIGNATURE
PATRICK M. SMITH,MSG	20210525	Digital Signature DIGITAL SIGNATURE 123456789

14a. APPROVED BY	14b. DATE (YYYYMMDD)	14c. SIGNATURE
SUSAN E. AMMO, MAJ	20210525	Digital Signature DIGITAL SIGNATURE 123456789

15. ITEM	16. DOCIC	17. NSN	18. NOMENCLATURE	19. UI	20. QTY REQUESTED/ TURNED-IN	21. TEC	22. ACTION CODE	23. QTY ISSUED/ RECEIVED	24. LOT/SERIAL NO.	25. CC	26. POSTED BY	27. DATE (YYYYMMDD)
1	A059	1305-01-155-5459	CTG, 5.56MM BALL M855 CLPD	EA	1680	TRS	TIS		LB-91L086-152			
2	A059	1305-01-155-5459	CTG, 5.56MM BALL M855 CLPD	EA	1680	TRS	TIS		LC-04L380-211			
3	A064	1305-01-156-7584	CTG, 5.56MM BALL M855/I TR M856	EA	1680	TRS	TIS		LC87K69L218			
4	A064	1305-01-156-7584	CTG, 5.56MM BALL M855/I TR M856	EA	1680	TRS	TIS		LC-88M691L295			
5	A131	1305-00-143-7163	CTG, 7.62MM BALL M80/I TR M62	EA	1680	TRS	TIS		HIB-L-500-29			
6	A131	1305-00-143-7163	CTG, 7.62MM BALL M80/I TR M62	EA	1680	TRS	TIS		LC-LI40125			
7	A131	1305-00-143-7163	CTG, 7.62MM BALL M80/I TR M62	EA	1680	TRS	TIS		LC-89F601Y620			

28. REMARKS
The above-listed items were drawn on document number W12ABC61651000.
All other items on that document were properly expended.
Residue turn-in document number W12ABC61701000.
Requested turn-in date: 15 June 2021.

POC: Name, phone number, and email address

29. RELATED DOCUMENT SERIAL NOS.

30a. ISSUED BY	30b. SIGNATURE	30c. DATE (YYYYMMDD)	31a. RECEIVED BY	31b. SIGNATURE	31c. DATE (YYYYMMDD)	32. TAMIS CONTROL NO.
RON B. SNUFFY	Digital Signature DIGITAL SIGNATURE 123456789	20210615	SAMUEL C. JONES	Digital Signature DIGITAL SIGNATURE 123456789	20210615	

DA FORM 581, JUN 2021 — PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE. — APD AEM v1.00ES

Figure 12–3. DA Form 581 (Request for Issue and Turn-In of Ammunition), live turn-in

REQUEST FOR ISSUE AND TURN-IN OF AMMUNITION

For use of this form, see DA PAM 700-16; the proponent agency is DCS, G-4.

1. ISSUE ☐	2. TURN-IN ☒	3. DOCUMENT NO.	4. LOCAL USE	5. PAGE	6. FOR LOCAL USE
		W12ABC61671001		1 OF 1	

7. SEND TO	8. REQUEST FROM	9. DATE MATERIEL REQUIRED (YYYYMMDD)	10. PRIORITY	11. ALLOCATION PERIOD	12. DODACC
ASP FORT BRAGG, NC	82ND SUS BDE FORT BRAGG, NC	20210601			W12ABC

13a. REQUESTED BY	13b. DATE (YYYYMMDD)	13c. SIGNATURE
JANET B. SMITH, SFC	20210506	Digital Signature DIGITAL SIGNATURE 123456789

14a. APPROVED BY	14b. DATE (YYYYMMDD)	14c. SIGNATURE
CHRIS A. BROWN, 1LT	20210506	Digital Signature DIGITAL SIGNATURE 123456789

15. ITEM	16. DOCIC	17. NSN	18. NOMENCLATURE	19. UI	20. QTY REQUESTED/ TURNED-IN	21. TEC	22. ACTION CODE	23. QTY ISSUED/ RECEIVED	24. LOT/SERIAL NO.	25. CC	26. POSTED BY	27. DATE (YYYYMMDD)
1	A061	1305-00-121-0877	CLIP, CTG	EA	305	TRS	TIR					
2	NX69	8140-00-078-8969	BOX, WIREBOUND W/ENDS (M2A1)	EA	5	TRS	TIR					
3	WY89	8140-00-828-2938	BOX, MTL M91A1	EA	7	TRS	TIR					
4	WY91	8140-00-690-1699	BOX, MTL M2A1	EA	6	TRS	TIR					
5	ZSAA	8140-00-864-3194	BOX, WIREBOUND W/ENDS	EA	1	TRS	TIR					
6	ZW43	1305-00-0000-0556	CASE CTG, FIRED BRASS 5.56MM	EA	67	TRS	TIR					
7	ZW44	1305-00-000-0762	CASE CTG, FIRED BRASS 7.62MM	EA	41	TRS	TIR					

28. REMARKS

The above-listed items were drawn on document number W12ABC61651000 and were properly expended.
All other items drawn on that document are being returned under document number (insert document number).

Contents have been inspected. Contents do not contain any live rounds, unfired primers, explosives, dangerous or hazardous materials.

Requested turn-in date: 1 June 2021.

POC: Name, phone number, and email address.

29. RELATED DOCUMENT SERIAL NOS.

30a. ISSUED BY	30b. SIGNATURE	30c. DATE (YYYYMMDD)	31a. RECEIVED BY	31b. SIGNATURE	31c. DATE (YYYYMMDD)	32. TAMIS CONTROL NO.
RON B. SNUFFY	Digital Signature DIGITAL SIGNATURE 123456789	20210604	SAMUEL C. JONES	Digital Signature DIGITAL SIGNATURE 123456789	20210604	

DA FORM 581, JUN 2021 PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE. APD AEM v1.00ES

Figure 12–4. DA Form 581 (Request for Issue and Turn-In of Ammunition), regarding residue turn-in

b. Ensure that DA Form 581 for residue turn-in contains the statement shown in figure 12–4 certifying that no live ammunition is among the residue materiel. DA Form 581 for live ammunition must contain the statement shown in figure 12–4 certifying that all ammunition received was either expended or turned in. Complete DA Form 5811 (Certificate - Lost or Damaged Class 5 Ammunition Items) for any damage to live ammunition upon inspection of turn-in by QASAS and residue shortages as shown in figure 12–5. The first lieutenant colonel in the chain of command or civilian equivalent signs the certificate. Make every effort to collect all residue for turn-in, even when the nature of the event prevents collection of all residue. Missing live ammunition requires action under AR 190–11. An AR 15–6 investigation will be initiated when a shortage of CAT I ammunition or CAT I residue occurs.

c. Commanders are required to initiate action and attach evidence of that action (for example, a copy of AR 15–6) when—

(1) Turn-in action and all administrative requirements were not completed within 5 working days following the event for which the ammunition was issued and an extension was not granted due to abnormal circumstances.

(2) The combined quantities of live ammunition and residue turned in is less than the quantities of ammunition initially issued by the ASP and is not accounted for by the commander's statement.

(3) Damage to live ammunition is from other than fair wear and tear.

CERTIFICATE - LOST OR DAMAGED CLASS 5 AMMUNITION ITEMS

For use of this form, see DA PAM 700-16; the proponent agency is DCS, G-4.

PART I - CERTIFICATION

I certify that the item(s) described in blocks 1-5 below were as stated. Circumstances of the loss or damage are accurately described below.

1. STOCK NO.	2. DESCRIPTION	3. QUANTITY	4. ITEM WAS *(Check)*		5. DAMAGED BY NEGLIGENCE? *(Check)*	
			a. LOST	b. DAMAGED	a. YES	b. NO
1305-01-266-9570	CAS CTG, FIRED BRASS 7.62MM	4 LBS	☒	☐	☐	☐
LAST ITEM----------	----------	----------	☐	☐	☐	☐
			☐	☐	☐	☐
			☐	☐	☐	☐

6. CIRCUMSTANCES OF LOSS OR DAMAGE

The items listed above were lost during an aviation live fire exercise. The rounds were fired from an aircraft over an area with high vegetation. The brass could not be recovered.

The above items were drawn on Document #W12ABC61661000 on 17 June 2021.

7a. SIGNATURE	7b. DATE
DIGITAL SIGNATURE 123456789 Digital Signature Organizational Commander	20210619

PART II - ACTION

8. I have reviewed the evidence pertaining to the loss or damage as stated. I agree ☐ do not agree ☐ that the loss or damage to the class 5 item *(s)* was ☒ was not ☐ due to negligence, willful misconduct, or deliberate unauthorized use. The following actions shall be taken:	CHECK ALL THAT APPLY
9. No further action is required. →	☒
10. An administrative adjustment shall be made in the property book for the class 5 item *(s)* that were not lost through negligence, willful misconduct, or deliberate unauthorized use.	☐
11. The damaged class 5 item*(s)* shall be repaired as fair wear and tear as the damage was not caused by negligence, willful misconduct, or deliberate unauthorized use.	☐
12. The circumstances surrounding the loss or damage warrant the processing of a formal Report or Survey that will be initiated immediately by the responsible property officer.	☐

13a. SIGNATURE	13b. TITLE	13c. DATE
DIGITAL SIGNATURE 123456789 Digital Signature	LTC/GS-14 or above	20210619

DA FORM 5811, JUN 2021 PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE. APD AEM v1.00ES

Figure 12–5. DA Form 5811 (Certificate - Lost or Damaged Class 5 Ammunition Items)

d. ASPs must meet a unit's requirement to return ammunition and residue and to reconcile the documentation within 5 working days after completing the training event or the ASP must grant an extension. The ARNG state marksmanship coordinator is responsible for turning in all marksmanship ammunition and residue on a quarterly basis. A complete reconciliation of prior issued document that is delinquent is required before receiving additional training ammunition.

e. ASPs provide temporary storage for ammunition and residue pending completion of the turn-in action. At the end of a training event, prior to close of the training day, return all ammunition and residue to the ASP or guarded ammunition holding area (AHA) for temporary storage pending completion of turn-in action. Before taking ammunition to the ASP or AHA, sort all explosives from inert residue and inspect all items for safety. Coordinate turn-ins in advance to ensure timely acceptance. The ASP may grant exceptions to the same-day turn-in requirement when factors such as distance, weather, and record-processing workload prevent the turn-in.

f. When the unit exceeds the 5-working-day turn-in, documentation-reconciliation period without prior coordination, the ASP initiates command notification, places the unit on the delinquent document list, and will not issue more training ammunition to that unit until the turn-in action is completed or proof of initiation of an investigation is provided to the ASP.

g. Following turn-in of the ammunition and residue, the ASP reconciles the turn-in quantities using the weight factors in appendix G or an item count, as appropriate. The ASP gives signed copies of DA Form 581 and DA Form 3151 to the unit. File these forms with the issue copy of DA Form 581 and appropriate DA Form 5515. Maintain the file under AR 25–400–2, as applicable.

h. For training units, add the quantities of serviceable live ammunition turned-in (ammunition CCs A, B, and C), as indicated by the ASP, as a gain to adjust the running balance on the unit copy of the TAMIS authorization report.

i. Ammunition items returned in their original containers with the seals intact will be credited to the units when DA Form 581 is processed through TAMIS via the ASP transaction.

j. Use the following procedures when training units have AE on hand, regardless of the reason or circumstance, after turn-in has been completed and documents reconciled—

(1) Prepare a new DA Form 581 for the AE. Note in block 11, the original issue document number and state "This is an amended turn-in document" (see fig 12–6).

REQUEST FOR ISSUE AND TURN-IN OF AMMUNITION

For use of this form, see DA PAM 700-16; the proponent agency is DCS, G-4.

1. ISSUE ☐ 2. TURN-IN ☒ | 3. DOCUMENT NO. W12ABC61791001 | 4. LOCAL USE | 5. PAGE | OF | 6. FOR LOCAL USE

7. SEND TO	8. REQUEST FROM	9. DATE MATERIEL REQUIRED (YYYYMMDD)	10. PRIORITY	11. ALLOCATION PERIOD	12. DODACC
ASP FORT CAMPBELL, KY	101ST SUS BDE FORT CAMPBELL, KY	20210603		4TH QUARTER	W12ABC

13a. REQUESTED BY	13b. DATE (YYYYMMDD)	13c. SIGNATURE
JAMES E. JONES, SFC	20210520	Digital Signature DIGITAL SIGNATURE 123456789
14a. APPROVED BY	**14b. DATE (YYYYMMDD)**	**14c. SIGNATURE**
SUSAN P. SMITH, CPT	20210520	Digital Signature DIGITAL SIGNATURE 123456789

15. ITEM	16. DOCIC	17. NSN	18. NOMENCLATURE	19. UI	20. QTY REQUESTED/ TURNED-IN	21. TEC	22. ACTION CODE	23. QTY ISSUED/ RECEIVED	24. LOT/SERIAL NO.	25. CC	26. POSTED BY	27. DATE (YYYYMMDD)
1	ZAAA	8140-00-960-1699	CASE CTG, BRASS, 5.56MM	LB	15	TRS	TIR					
		--------LAST ITEM--------	----------									

28. REMARKS

This is an amended turn-in document due to (reason).

_____

Signature of First O-5

The above- listed items were drawn on document number W12ABC61651000.
All other items on that document were properly expended.
Live Turn-in document number W12ABC616701000.
Requested Turn-in date: 3 June 2021.

POC: Name, phone number, and email address.

"Contents have been inspected. Contents do not contain any live rounds, unfired primers, explosives, dangerous or hazardous materials."

29. RELATED DOCUMENT SERIAL NOS.

30a. ISSUED BY	30c. DATE (YYYYMMDD)	31a. RECEIVED BY	31c. DATE (YYYYMMDD)	32. TAMIS CONTROL NO.
FRANK B. SNUFFY	20210603	JANET P. WILLIAMS	20210603	
30b. SIGNATURE Digital Signature DIGITAL SIGNATURE 123456789		31b. SIGNATURE Digital Signature DIGITAL SIGNATURE 123456789		

DA FORM 581, JUN 2021 PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE. APD AEM v1.00ES

Figure 12–6. DA Form 581 (Request for Issue and Turn-In of Ammunition), regarding amended residue turn-in

(2) The unit commander will ensure that AE scheduled for turn-in will be maintained under the appropriate controls and safeguards until it can be turned in to an ASP.

(3) Turn in AE during normal duty hours for the ASP.

(4) The first lieutenant colonel in the chain of command will—

(a) Sign and date the amended return. Ensure units do not abuse the amended turn-in procedures.

(b) Use the amended turn-in procedures to monitor AE control in their subordinate units.

12–14. Unit turn-in actions at the ammunition supply point

a. Provide adequate personnel to accomplish the turn-in task. Turn in the personnel report to the ASP stock control clerk, give the clerk the unit turn-in documents, and request inspection of the unit vehicles.

b. Accompany the ASP checker and take the live ammunition to the ammunition segregation and inspection area. Unload and segregate the live ammunition by DoDIC and lot number. Assist ASP personnel in inspecting, inventorying, repacking, and stenciling containers as necessary. Reload the repacked ammunition on the unit vehicles and follow the ASP escort to the appropriate ammunition storage areas. Unload and place the ammunition in storage as directed by the checker.

c. Accompany the ASP checker to the residue salvage yard. Unload and segregate the residue by type. Assist ASP personnel in weighing or counting the residue.

d. Accompany the ASP checker to the ASP stock control clerk who will complete the appropriate blocks on DA Form 581, ensuring that blocks 26 and 27 are filled in for each line item present. Obtain signed copies of DA Form 581 and DA Form 3151.

12–15. Consumption of ammunition

a. Reporting. Units will report the expenditure for combat, sustainment, operational, and training ammunition using DA Form 4949 (Administrative Adjustment Report (AAR)) for all ammunition, missiles, and explosive items and on an MFDR for all applicable missiles. Units will report loss or damage of ammunition in accordance with AR 190–11 and AR 700–28.

(1) TAMIS manages the roles and permissions to transmit electronic forms by user rights. Ammunition consumers, managers, or unit reporting officials must establish a user account within TAMIS and be granted the rights to submit DA Form 4949.

(2) Commanders and PBOs do not require a TAMIS account. TAMIS-generated DA Form 4949 is designed to be sent via link to the PBO's email directly from TAMIS once the routing is established. RDT&E units are exempt from this requirement, as PBOs don't normally review or approve DA Form 581 for test use.

(3) Accounts are required for commanders, delegated officials, or PBOs requesting access to previously signed forms and reports. DA Form 4949 is retained on the TAMIS server to maintain auditability and data validation.

(4) Unit PBOs or designated representatives will use their TAMIS account to review, verify, and approve all ammunition expenditures or loss.

(5) The TAMIS user guide provides detailed instructions to establish and maintain DA Form 4949 routing. Organizations will establish a routing chain for all assigned UICs in TAMIS.

b. Expenditure. Posting will include, at a minimum, the DoDIC, SNs of items consumed, lot numbers, and quantity expended. Units will make every effort to identify the document number against which the ammunition consumed was issued. Information for ammunition issued through TAMIS is maintained and available during DA Form 4949 creation process to assist with expenditure reporting. Ammunition issued in support of testing is exempt from using DA Form 4949. Units will annotate the type of expenditure from the following categories:

(1) *Consumed.* Ammunition, missiles, or explosive fire from weapons systems for its intended purpose to meet mission requirements.

(2) *Demilitarization.* Ammunition, missiles, or explosives destroyed through means other than those already described. Ammunition consumed as part of the destruction (C–4, blasting caps, and other donor materials) will not be captured in this category. All ammunition consumed to affect demilitarization of other ammunition will be captured as consumed as outlined in paragraph 12–15b(1).

(3) *Combat loss.* For use in forward operations for ammunition issued as CL or SL only. It includes ammunition, missiles, or explosives that are lost due to enemy action or are damaged through fire, explosion, or delivery process (such as air drops and speedball) that renders the ammunition unusable or unrecoverable. Do not report ammunition captured as combat loss as demilitarization if additional destruction is not required during clean up or recovery.

(4) *Mission event code.* Units will select the proper mission event code, as outlined in the TAMIS user's manual, and ensure the reported date of expenditure is the actual date consumed, lost, or demilitarized. Report expenditures on DA Form 4949 only once in addition to the required MFDR or supplemental MFDRs required by regulations.

Section V

Physical Security, Amnesty, Inventory Inspections, and Audits

12–16. Physical security

a. Upon departure from the ASP, the receiving unit must provide physical security for the ammunition per AR 190–11 and this chapter. Armed guards are required for CAT I and CAT II missiles and rockets. ARNG units and Regular Army units located overseas, at the discretion of their ACOMs, are authorized home storage of training ammunition. When keeping ammunition on hand in the unit for more than 30 days, but not more than 90 days, follow the storage and inventory procedures that apply to CL ammunition. Store training ammunition not in use in ammunition storage rooms or magazines that meet the construction requirements in AR 190–11. Just prior to and during training events, the using unit may store training ammunition on vehicles, in open field storage, or uploaded in AHAs provided the following criteria are met:

(1) A perimeter barrier, either temporary or permanent, is maintained.

(2) Continual surveillance is provided by on-duty or specifically appointed guard personnel.

(3) Security lighting is provided, if available, during hours of darkness or poor visibility.

(4) The area is posted as a restricted area.

(5) Access is denied to unauthorized personnel.

(6) Communications are provided for guard personnel (for example, radio or telephone).

(7) The ammunition in field storage is inventoried by the responsible person at the time of storage and every 24 hours thereafter. Report verified inventory shortages per AR 190–11 and submit appropriate serious incident reports. When more than one unit is using the same storage area, separate and identify training ammunition stocks by unit. Only one unit at a time is responsible for providing security for the field storage area.

b. As an aid to maintaining ammunition security, ACOM, installation, battalion, and company commanders should implement, if possible and applicable, local measures to deter access to training areas and ranges when not in use (that is, post them off limits, employ roving patrols, or make periodic checks to deter the presence of unauthorized personnel). These security practices discourage unauthorized access to these facilities and reduce the scavenging of ammunition items that units may have either purposely or inadvertently left on the range or in the training area.

c. After use, certain items of ammunition retain some value for training (for example, a light anti-tank weapon launcher). Such items are commonly reissued from ASPs to support unit training. For safety, security, and accountability purposes, ensure that all such items are conspicuously marked per DA Pam 385–64, have holes drilled in them, or are identified in some other way to prevent them from turn-in as accountable residue or restoration to their original configuration. Check all such items and return them to the ASP if they are not marked, drilled, or prominently identified in some other manner.

d. Units are not authorized to request ammunition residue from the Defense Logistics Agency (DLA). When residue is needed for a specific training purpose, request the residue from the ASP. Units or unit personnel will not purchase ammunition residue from DLA. The ASP demilitarizes ammunition residue before issue and disposal, sale to authorized contractors, or return to the wholesale level, as appropriate.

e. Ammunition issued in support of testing will follow physical security measures outlined in AR 190–11.

12–17. Ammunition and explosives amnesty program

a. General.

(1) *Ammunition and explosives amnesty programs.* AE amnesty programs are intended to maximize recovery of military AE items found outside the supply system. They are not intended to circumvent normal turn-in procedures. Garrisons, installations, and forward-operating bases having elements that use ammunition will establish an AE amnesty program.

(2) *Ammunition and explosives found on post or installation.*

(a) All found AE, excluding small arms ammunition (up to and including 0.50 caliber), will be considered hazardous and will not be moved by untrained personnel. Supporting EOD personnel will respond upon request to recover AE found on post. EOD need not be called when small arms ammunition is found. These items are to be delivered to the ASP. No documentation is required.

(b) EOD units may store recovered AE overnight in the EOD storage locations and may turn in serviceable AE to the ASP as soon as workload permits but no later than 3 duty days following recovery. If the EOD unit does not have a storage facility, ASP storage personnel will be on call to receive AE from EOD at the ASP. EOD units are exempt from the 24-hour advance turn-in notification to the ASP when turning in recovered items found on post for amnesty for AE.

(c) Military police responding to a call to investigate AE found on post will coordinate all activities with supporting EOD.

(d) At installations without EOD support, commanders will establish a roster of properly trained personnel to evaluate ammunition prior to movement. Formal support agreements will be established with the nearest DoD installation having EOD capability to support the amnesty program.

(3) *Arms, ammunition, and explosives found off post or off installation.* When any type of AE or explosive material is found outside an installation boundary, contact local civilian authorities, host nation military authorities, or military police. EOD units will respond to off-post incidents only at the request of civilian authorities or military police.

b. Roles of commanders.

(1) The adjutant general for ARNG establishes and implement an AE amnesty program that does not intimidate the individual or prevent the individual from freely turning in ammunition. Each organization

commander having elements that use or expend ammunition or explosives will develop an amnesty program that supports the ACOM AE amnesty program.

(2) All commanders—

(a) Monitor the amnesty program as an indicator of the effectiveness of ammunition accountability, so the program is not used to circumvent accountability.

(b) Ensure assigned personnel are briefed on AE amnesty program policies and procedures semiannually and prior to each exercise or training event that requires the use of AE.

(c) Monitor the AE amnesty program to ensure units do not abuse the program instead of using proper turn-in procedures.

(d) Post the location and telephone number of the nearest military turn-in point and provide directions to anyone (military or civilian) who wants to turn in AE under the program.

(e) Develop an SOP detailing specific functional responsibilities and highlighting explosive safety requirements for handling AE amnesty items.

(3) Senior commanders—

(a) Furnish qualified persons to technically supervise amnesty operations and request EOD support as needed.

(b) Establish, at a minimum, an AE amnesty program with the following provisions: publicizing in the media, unit training programs, and community operated facilities and military organizations; amnesty days.

(c) Schedule AE amnesty days annually for collection of abandoned or unauthorized AE. CONUS ammunition production facilities and CONUS wholesale depots will schedule amnesty days at least annually. Coordinate and amnesty day schedule with supporting ASP 60 days prior to each amnesty day. Forward the schedule of the AE amnesty day to all subordinate commanders. Establish collection points that are easily accessible to persons desiring to turn in AE. Safeguard turned in AE and transport it to the ASP. Exercise extreme care in handling both serviceable and unserviceable AE that has been turned in.

(d) Ensure EOD personnel, QASAS, or Soldiers (military occupational specialist 89B) or ammunition warrant officers (890A) are available on AE amnesty days to supervise the collection process. Ensure that medical personnel are on call for emergencies, that explosive safety personnel approve collection procedures and facilities, and that the fire department is notified and firefighting equipment is on call.

(4) ACOM commanders may—

(a) Designate EOD units as amnesty turn-in points.

(b) Provide amnesty collection containers at each ASP.

(c) Make these containers available 24 hours a day for recovery of amnesty AE.

(d) Inspect amnesty containers at irregular intervals. The installation Provost Marshal Office, in coordination with the installation safety officer and chief QASAS, will establish the interval. Document results of the inspection and remove and secure any amnesty items found in the containers.

(e) Authorize amnesty containers for AE items in locations other than the ASP.

(f) Have both the installation safety officer and chief QASAS approve the design, identification, location, and operating instructions of all amnesty containers.

c. Ammunition supply points. ASPs or surveillance and accountability control teams will accept ammunition turned in under the provisions of the AE amnesty program. Individuals turning in AE under the amnesty program are not required to have a turn-in document and are exempt from the 24-hour advance turn-in notification to the ASP.

(1) When AE is turned in to the ASP under the amnesty program, the individual making the turn-in will not have documentation. Therefore, the ASP will initiate DA Form 581 turn-in document to establish an audit trail. The Request From block of DA Form 581 will contain one of the following entries (no other entries are permitted):

(a) Individual.

(b) Amnesty container.

(c) EOD.

(2) ASP storage personnel will respond in a prompt and timely manner to accept AE recovered by EOD personnel.

d. Telephone numbers. Each senior commander will establish a 24-hour telephone number to provide directions to anyone (military or civilian) who wants to turn in military AE under the amnesty program. A recorded message providing information and procedures may be used.

(1) Designate a telephone number at each installation to provide information and procedures for amnesty turn-ins.

(2) This requirement can be satisfied by providing a recorded telephone message with information and procedures for found ammunition and ammunition amnesty turn-in.

(3) Where recorded messages are not used, individuals working in the area of the phone will be knowledgeable of the AE amnesty program.

e. Publicity. All commanders will ensure AE amnesty program procedures and the location of the nearest amnesty turn-in point are advertised throughout their command's area. ACOM commanders may choose to publicize the amnesty policy in the surrounding civilian community. Senior commanders will ensure the following will be widely publicized:

(1) A telephone number for information on the AE amnesty program and procedures for found ammunition.

(2) The location of the nearest amnesty turn-in point.

12–18. Inventory

a. Physical inventory is accomplished by counting palletized configuration or outer packs. Do not disassemble banded pallets to count individual boxes. Do not open sealed boxes to count individual items. If markings are believed to be incorrect, actually count each item of those configurations.

b. DA Form 3020 (Magazine Data Card) is a working document that helps control the receipt, storage, issue, and inventory of munitions within a storage location. Magazine data cards are not formal accountable documents. Use DA Form 3020 (Magazine Data Card) only to aid in the resolution of discrepant accountable records and for storage of ammunition. DA Form 3020 is available in MHP and on the Army Publishing Directorate website. Do not use DA Form 3020 to determine quantities when conducting inventories because inventories will be recorded on DA Form 3020 as they are conducted.

c. For installations participating in the sealed site program, sites will be sealed within LMP and monitored. SSA will submit plan for seal site recommendation to JMC Accountable Property Office (APO) for approval. When ammunition is in storage, use a protective seal on the storage structure, and keep in place the same unbroken seal that was installed on the structure at the completion of the last inventory. Data from the last inventory may be used.

d. During an inventory, if any class V items are missing or found, take immediate action under AR 190–11.

e. Post results of the inventories to accountable records within 3 working days after completion of the inventory action at the retail level and within 5 working days of completing the count at the wholesale level (3 days to post to post the inventory and 2 days to post adjustments). For those units not operating automated systems of stock accounting, see chapter 13 for instructions on posting inventory results to lot locator record via APSR or manually using DA Form 5203.

f. The Commanding General, Army Criminal Investigation Command will specify procedures to inventory the ammunition reference file at the Defense Forensic Science Center.

g. Count each item stored at a particular floor location as one item. Data elements required for each stocked item are DoDIC, quantity, SN, lot number, and location. An error in any one of those data elements means an error for the item. The formula to compute first count inventory accuracy is total number of items inventoried minus number of items with errors, divided by total number of items inventoried, multiplied by 100.

h. For physical inventory count palletized configuration or outer packs, that is, the number of pallets multiplied by the number of containers per pallet, multiplied by the quantity of rounds per container. The wholesale level may conduct the inventory with a combination of physical and AIT. Do not disassemble banded pallets to count individual boxes. Do not open sealed boxes to count individual items. For less-than-full quantities, either box or pallet, record the quantity used on the light box or the number of boxes on the light pallet multiplied by the number of rounds per box. Note any quantity discrepancies and follow procedures to account for discrepancy.

i. Inventory procedures for ammunition annotated on the property book or stored in the arms room are outlined in DA Pam 710–2–1.

j. Ammunition issued to users at RDT&E facilities will—

(1) Be accounted for on the property book by quantity, lot number, and SN if applicable.

(2) Be accounted for by users and stored in an approved AHA.

(3) Be inventoried monthly by two personnel to ensure accountability. The same two personnel will not inventory for 2 consecutive months. Inventories will be annotated on DA Form 3020 for each DoDIC, lot, and CC.

(4) Comply with all ammunition and safety requirements for storage as outlined in DA Pam 385–64.

(5) Comply with ammunition physical security requirements and key control procedures as outlined in AR 190–11 and AR 190–51.

(6) Comply with accountability policy and management procedures outlined in AR 735–5, DA Pam 700–16, and DA Pam 710–2–1.

(7) Maintain strict accountability by using consumption reports to update user-level accountability systems on a daily basis.

(8) Be accounted for in TAMIS accounts established per local need required for processing DA Form 581 and to manage requirements in support of testing, training, and OPL.

(9) Have maintained supporting accountability records generated during RDT&E operations as outlined in AR 735–5 and AR 25–400–2.

12–19. Audits and inspections

The Office of the Assistant Secretary of the Army Financial Management and Comptroller, Accountability and Audit Readiness Directorate, will conduct operating material and supply audits monthly for both retail and wholesale ammunition management procedures and business processes with the exception of ATEC, U.S. Army Communications-Electronics Command, and DEVCOM. The HQDA Worldwide Ammunition Logistics/Explosive Safety Review and Technical Assistance Program reviews and audits are conducted approximately every 4 years or as required by the Logistics Review and Technical Assistance Office (LRTAO) from the Army DAC. ACOMs prescribe the frequency for command inspections and audits for compliance with the procedures in this chapter.

Section VI

Storage

12–20. Introduction

a. DoD ammunition is stored, monitored, maintained, and moved through a combination of military and commercial means (see app I for ammunition supply facilities). This network includes military, DA civilian, and commercial facilities, equipment, and personnel. Permanent and temporary storage locations that are located throughout the CONUS, OCONUS, and afloat are listed in appendix B. Ammunition in these facilities must be monitored and periodically maintained to ensure reliability, safety, and security as outlined in AR 190–11, and DA Pam 385–64.

b. A stock control account will be set up at each storage activity. The stock accounting system will be designed to permit recording of multiple locations by condition of each stock line.

c. Army storage and supply operations with comply with AR 740–1 and its reporting requirements.

12–21. Types of storage

a. Strategic storage. Storage of ammunition throughout the DoD ammunition enterprise occurs at a number of depots, plants, arsenals, ammunition centers, and commercial storage facilities. These locations store fully functional ammunition or ammunition components, nonstandard ammunition, and bulk energetic materiel within the production and distribution cycle.

b. Operational storage. Operational storage is the linkage between strategic storage to tactical storage of ammunition, support tactical storage facilities, and store reserve stocks.

c. Tactical storage. Tactical storage of ammunition directly supports the combat division or portions of the division. The type and quantities stored varies depending upon the type of unit supported and their mission.

12–22. Coalition and multinational ammunition and explosives storage

Procedures in this section outline the storage of coalition and or multinational AE on areas (for example, forward bases and staging areas) under Army control. All AE operations on Army-controlled AE storage sites and facilities (for example, ASP, AHA, CL AHA, basic load AHAs, ammunition transfer and holding

points, forward arming and refueling points, and combat aircraft parking areas) will comply with applicable policy.

a. Coalition and or multinational AE may be stored with DoD AE only if it has been hazard classified in a manner equivalent to DoD explosives hazard classification procedures as outlined in TB 700–2. Coalition or multinational AE with a DoD equivalent hazard classification that is stored with DoD AE—

(1) May be stored in the same storage structure or on the same storage pad but must be separated from DoD AE.

(2) May be stored in the same storage structure or on the same storage pad with DoD AE provided the Deviation Approval and Risk Acceptance Document (DARAD), which considers the surveillance, propellant stability controls, packaging, and transportation, handling, and operational practices of such AE, is prepared and approved by the appropriate level per DA Pam 385–30.

b. Separate coalition and or multinational AE, either without a DoD equivalent hazard classification or when the equivalency of the hazard classification procedure is uncertain, from DoD AE by inter-magazine distance.

12–23. Coalition and multinational ammunition and explosives operation

a. The safety separations between an AE operation and a storage site depend on several factors, including the hazard class present, the net explosive weight present, and the level of protection required. The following are the minimum required levels of protection when AE operations are involved:

(1) Concurrent U.S. Army and coalition or multinational AE operations (for example, ammunition issues, turn-in, and inspections) will be separated by a minimum of intraline distance.

(2) Noncurrent U.S. Army and coalition or multinational AE operations may be performed on the same storage pad, site, or facility provided the AE of the first operation is removed prior to starting the second operation.

(3) AE operations (U.S., coalition, or multinational) at risk from AE storage sites will be given intraline distance level protection from that storage site.

(4) AE storage sites (U.S., coalition, or multinational) at risk from AE operations will be given inter-magazine-distance level of protection from that AE operation.

b. Coalition or multinational AE storage or operations will be separated by inhabited building distance or public traffic route distance from non-AE facilities or locations that require this level of protection as outlined in Defense Explosives Safety Regulation (DESR) 6055.09 and DA Pam 385–64.

c. When mission necessity or operational constraints will not allow these minimum separation distances to be maintained, the U.S. Army will obtain approval of a DARAD at the appropriate command level or, when required, from the CCDR. When the U.S. requires storage with coalition or multinational AE hazards, coordinate the DARAD with the coalition or multinational units involved with the storage of ammunition. Mitigating measures may include a memorandum of agreement to all affected allowing U.S. Army commanders to inspect coalition and or multinational AE sites for compliance with safe storage and operating practices. Such agreements will be coordinated in accordance with COCOM policies and instructions.

12–24. Nonstandard ammunition storage

a. To properly store nonstandard AEs on an Army installation requires a DoD hazard division (HD) and compatibility group. Nonstandard AEs without a DoD HD and compatibility group will be stored as HD 1.1 and compatibility group L. Small arms items (0.50 caliber and below in which the projectile does not contain energetics other than tracer material) will stored as HD 1.4 and compatibility group G.

b. Storage items that require compatibility group L will take up excessive storage space at ASPs. Such storage is discouraged, so make every attempt to get a DoD HD for storage as outlined in Defense Finance and Accounting Service-Indianapolis Manual 37–100, which is updated each FY.

c. Life cycle management plans, including the disposal of unused nonstandard ammunition, must be available to the NICP prior to storage except for nonstandard ammunition used by RDT&E activities in support of testing sites. Demilitarization, residue, and emergency destruction procedures must be included in the acquisition plan.

12–25. Safe haven or secure hold

a. In accordance with DTR 4500.9–R-Part II, any vehicle using the DTTS will be allowed access at any time to installations designated as secure holding facilities in the Transportation Facility Guide for secure holding, including during a nonemergency situation.

(1) In accordance with DoDM 5100.76, DoD installations must accept AA&E shipments for safe haven or secure hold, regardless of arrival time or final destination. If safe haven or secure hold cannot be provided, the DoD activity, in coordination with civil law enforcement authorities, will assist and escort to a suitable location.

(2) A safe haven is a DoD installation parking location where a driver carrying AA&E can secure the vehicle in the event of an emergency situation, such as vehicle breakdown, driver illness, terrorist threat or action, criminal activity, civil disturbance, or natural disaster.

(3) Secure hold is a DoD installation parking location where a driver carrying AA&E can park under nonemergency situations, such as arrival after duty hours.

b. Protection of shipment will be commensurate with the sensitivity of the AA&E. Under safe haven conditions or secure hold, explosive safety quantity distance requirements must be considered, but these requirements will not eliminate the responsibility to provide safe haven or secure hold to mitigate shipment vulnerability.

(1) Verification of the driver's or passenger's clearance in the Joint Personnel Adjudication System is mandatory prior to entry. Commanders will ensure Joint Personnel Adjudication System access is available at all times. Installation security personnel can validate the DoD carrier's identification by calling the SDDC Operations Center at 800–826–0794.

(2) Commanders may set local policies for hours that drivers may retrieve their loads from secure hold areas. Commanders of impacted ammunition facilities will develop local SOPs in accordance with applicable regulations to ensure safe, secure, and efficient secure holding capability is available as needed.

12–26. Explosive safety siting

a. Storage of AEs requires minimum safety distances to prevent a cascade of damage in the event of an explosion at a storage location. To identify and abide by these distances, accurate information about an installation's explosives storage is needed.

b. Trained explosive safety personnel at approved storage facilities will identify and record all storage locations and HDs so that the information can be entered into the explosive safety siting (ESS) program for analysis.

c. Explosives safety quantity distance is the distance created by explosive safety arcs generated by ESS procedures and software when explosives are present. The arcs' inter-magazine distance, intraline distance, public traffic route distance, and inhabited building distance correspond to the total net explosives weight of all explosives in an open storage pad, aboveground magazine, or earth-covered magazine. These distances are minimum safety distances between magazines, open storage pads (inter-magazine distance), ammunition mission related work areas (intraline distance), roads (public traffic route distance), and non-ammunition mission areas (inhabited building distance).

d. When an installation receives approval from the DoD Explosives Safety Board for a site plan, the net explosives weight limits represent the maximum amount of AE that an installation is approved to store. If this limit is exceeded, it not only violates and invalidates the explosive safety site plan, but it can also greatly reduce the minimum safety distance from non-ammunition related areas and activities.

e. Army commanders and directors of AE storage facilities will ensure that ESS software, using up-to-date installation Geographic Information System (GIS) map data, combined with real property inventory (RPI) data and potential explosion sites (PESs) data, are used to calculate, analyze, and generate explosive safety quantity distance arcs. Before starting this process, GIS, RPI, and PES data must be prepared for use with the ESS software.

f. ESS uses GIS data for map window display, spatial analysis of separation distances between map features, and detection of barricaded facilities using line of site between features and development of site plan drawings.

g. RPI data are used with the ESS software to indicate the use of each facility. The ESS software reads category codes found in RPI data and automatically translates the information into three-letter type codes that define the general use of a facility. RPI data comes from the Army Integrated Facilities System, Internet Navy Facilities Asset Data Store, Air Force Automated Civil Engineer System, or ARNG Planning Resource Infrastructure Development and Evaluation database.

h. ESS software uses PES data to define the net explosives weight and properties of each explosives storage and handling location. This information is usually managed by the installation safety office. ESS software will link the GIS, RPI, and PES data sets using a number associated with each storage facility.

Chapter 13
Manual and Automated Stock Control Procedures

Section I

Stock Record Accounting

13–1. Stock control system

The stock records are the core of the stock control system. The key to an effective supply support operation is an accurately posted and efficiently kept SRA. When these records are also kept by automated means using the APSR, the AMCOM Ammunition Tracking Systems, or the Ordnance Management System, it is equally important to be able to recover from a data loss or system crash. To do this effectively and timely, back up data files and software operating files to a reliable storage device and store them in a safe place. In short, an effective continuation-of-operation plan must be in place. Maintain all stock records for 6 years and 3 months—1 year active and 5 years and 3 months inactive.

a. Purpose of a stock record account.

(1) The SRA is a holding account for ammunition stocks, and ammunition is recorded in an SRA while stored for issue or disposal. Users must return all ammunition items, residue packing material, and components to an SRA before those items are removed from the Army inventory. The SRA is not used to account for property once the property is issued to a unit.

(2) The SRA is used by TOE and TDA units having an ammunition support mission to service their customer units.

(3) The SRA is an ammunition support activity accounting record. An accountable stock record officer (SRO) must keep the ammunition accounting record on prescribed forms or in an approved automated system. The only authorized automated system that may be used to account for ammunition is the APSR. The SRA has data to support three major supply functions—

(a) Inventory control decisions. An accurate inventory is required to make proper decisions that control the inventory. The data in the SRA is the basis for inventory control functions of requirements, acquisition, disposal, inspection, and repair of stock.

(b) Item control. The vouchers posted to the SRA are the basis for the ammunition control functions of receiving, issuing, recovering, shipping, and storing.

(c) Accountable records. The records and files of the account are the basis for the stock control functions of stock accounting and asset reporting.

b. Authority to keep a stock record account. The TOE or TDA authorizes an organization to establish and maintain an SRA. Mission support SRAs (supporting special development maintenance, manufacture, production, renovation, research, or test missions) are unauthorized unless approved by the ACOM commander.

c. Stock record account serial numbers. AR 735–5 requires assignment of an SN to each SRA to identify the SRA and to prevent establishing unauthorized SRAs.

(1) The DoDAAC is the SRA SN (see AR 725–50).

(2) The ASP authorizing official (AO) or unit commander requests an SN when a new account is established or when an SN was not assigned to an existing account.

(3) The SRO requests cancellation of the SN when the account is closed.

(4) SNs remain with the SRA, even when the SRO who keeps the SRA rotates to another unit.

d. Stock record officer. The SRO operates the SRA. The SRO is an AO who is accountable for the ammunition from the time of receipt until the ammunition is issued, released, or dropped from accountability (see AR 735–5). When SROs change, the outgoing SRO transfers accountability to the incoming SRO under AR 735–5 following the inventory procedures outlined in AR 710–2. The inventory will be conducted as a 100-percent and wall-to-wall effort. The ACOM may grant exceptions to the wall-to-wall requirement using a sample percentage, provided the cause for exception is due to the size of the account. The outgoing SRO is responsible for conducting all causative research and adjustments prior to depar-

ture. Emergency procedures outlined in AR 735–5 may be used if warranted. All discrepancies found after the outgoing SRO has departed will be investigated and adjusted per AR 735–5. Instead of a board of officers, an investigation per AR 15–6 will be done for all adjustments.

(1) The AO will establish roles and list permissions based on the mission for all stock control clerks using DD Form 2875 (System Authorization Access Request (SAAR)). Only AOs and their designated representatives will be authorized to modify user roles and permissions. The personnel authorized to have access to the system are the AOs, stock control clerks, and QASAS assigned and working at the specified DoDAAC. The AO will review users' access annually or when there is a change in personnel.

(2) The AO will use DD Form 2875 to modify or deactivate a user. The AO will sign and date the form.

(3) The AO will print out users from the system before and after the review, document changes on a memorandum for record, sign, and date the report. The AO will maintain DD Form 2875, the list of users, and the memorandum for record for 6 years and 3 months.

(4) The theater sustainment command (TSC), expeditionary sustainment command (ESC), or JMC material manager will review the AOs access annually or when there is a change in personnel. Document the review and or changes on a memorandum for record, sign, and date. The TSC, ESC, or Army Sustainment Command will maintain DD Form 2875, list of AOs, and the memorandum for record for 6 years and 3 months.

e. Review and validate data entry. The AO will review and validate data entry for all transactions completed by the stock control clerks daily to ensure timely and accurate posting against the SRA. The AO will validate the transactions in the systems against the documentation from the stock control section. After review, the AO will annotate reviewed, sign, and date. Documentation of the review will be retained for 6 years and 3 months. If the AO processes a transaction, the material manager at the TSC or ESC will review the entry into the systems daily to ensure timely and accurate posting against the SRA. The material manager will annotate reviewed, sign, and date. Documentation of the review will be maintained on file at the ASA (ALT) for 6 years and 3 months.

f. Disposing of stock records. Use the directions in AR 25–400–2 and files prescribed in this chapter to dispose of ammunition stock records. The archived history files and closed document registers from the automated system will be maintained the same as the stock records for a manual system.

13–2. Maintain stock records

Current and accurate postings ensure records always show the true balance of stock. Post gains, losses, or adjustments to the records within 1 workday; otherwise, records are useless for editing requests, controlling levels, or gathering statistics. Manual and automated entries are the two posting methods used in the APSR.

a. Manual. One way is the preposting method for DoDIC master and lot locator records. The other way is the preposting method to due in and due out records.

(1) Use indelible ink for all postings unless indicated otherwise in this chapter.

(2) Post receipts from the release document, shipping document, turn-in document, or materiel inspection and receiving report. Also post receipts from any other document on which the receiving section has noted receipt of ammunition or components.

(3) If posting is delayed for any reason and, as a result, several postings to a stock record are necessary, make the postings in the following sequence:

(a) Inventory adjustments. First, post increase adjustments as gains, then post decrease adjustments as losses.

(b) Receipts from ammunition supply sources.

(c) Turn-ins from customer units.

(d) Shipments to other ammunition supply activities.

(e) Issues to customer units.

(f) Cancellations of receipts due in from ammunition supply sources.

b. Automated. One way is the preposting method for some types of transactions (issues, turn-ins, shipments, receipts, and intradepot transfers (IDTs)). The other way is the post-posting method (single entry) used for other types of transactions (account code change, CC change, and maintenance transfer).

(1) Prepost transactions from the release documents, shipping documents, turn-in documents, or materiel inspection and receiving reports. Post transactions from the verified copies of DA Form 3151.

(2) If posting is delayed for any reason and, as a result, several postings to a stock record are necessary, make the postings in the following sequence:

(a) Inventory adjustments. First, post increase adjustments as gains, then post decrease adjustments as losses, including posting error adjustments.
(b) Receipts from ammunition supply sources.
(c) Turn-ins from customer units.
(d) Shipments to other ammunition supply activities.
(e) Issues to customer units.
(f) Cancellations of receipts due in from ammunition supply sources.

13–3. Stock record set

a. Manual. Keep a stock record set for each item authorized for stockage or having an on-hand balance. A stock record set for a single item is made up of one or more of the following forms filed together:
(1) DA Form 5203 (DoDIC Master/Lot Locator Record). Use DA Pam 710–2–2 for instructions when preparing the form.
(2) DA Form 3151 (Ammunition Stores Slip) is a multipurpose form (hardcopy and automated) used when ammunition is issued, shipped, received, turned in, or relocated. This form is available on the Army Publication Directorate website. Instructions to prepare the form are outlined in *paragraph 13–16e*.
(3) DA Form 1298 (Due Out Record) should be used for manual operations to record obligations to fill requests for ammunition from ASP customers or pending shipments.
(4) DA Form 4999 (Due In Record) is used to record expected receipts of stocks when conducting manual operations based on an estimated ship date from NICP.
b. Automated. All the data files within the APSR system have a prefix. Various files within the automated system can be equated to the forms used in a manual stock record system. DA Form 3151 (Ammunition Stores Slip) will print the same via the APSR. Lot locator file and SN file are equivalent to DA Form 5203 (DoDIC Master/Lot Locator Record). Both history files contain records of each completed transaction, except inventories with no discrepancies. None of the files within the APSR will be modified, edited, or altered in anyway outside of normal transaction posting, without the approval of the SSA commander.
c. Building support files. Prior to posting any transaction, support files must be built using the System Maintenance menu option. Those support files include—
(1) Account code table file.
(2) Catalog data file.
(3) Explosive safety limits file.
(4) SP or SP to file.
(5) Transaction type file.

13–4. Maintaining document control

a. A good document control system reduces the chances of losing documents and makes it easier to retrieve documents when information is required. Controlling ammunition documents is so important that ASPs are authorized to assign internal document numbers to all transactions and record the assigned document numbers on a document register.
b. Maintain all documents that affect the accountability and status of ammunition stocks. Some examples of accountable documents are—
(1) DA Form 581 (Request for Issue and Turn-In of Ammunition).
(2) DA Form 4508 (Ammunition Transfer Record).
(3) DD Form 1348–1A (Issue Release/Receipt Document).
(4) DD Form 1384 (Transportation Control and Movement Document).
(5) DA Form 444 (Inventory Adjustment Report (IAR)).
c. Assign a document control number to each transaction document received or initiated in the APSR that affects the accountability, status, or condition of ammunition stocks on hand. In the automated system, a document control number will automatically be assigned to each one of these transactions when posted. These numbers will end with a four-digit number that will reset in sequence each day, for example, -0001, then -0002. It may be necessary at some retail sites to create a segmented document register to initiate documents within the APSR. For other than automated document numbers, record the transactions on DA Form 2064.
(1) Use the document control number to identify all postings to the stock records.

(2) The ASP document control number is the Julian date of the transaction plus a four-digit SN, for example, 5173–0019. The first transaction processed each day is transaction number -0001, the second is -0002, and so on. For example, 5173–0019 is the 19th document processed by an activity on Julian date 5173.

13–5. Document register

The document register file will be maintained automatically by the APSR. If a segmented document register is used, blocks of numbers will be assigned, in writing, to other sections or for specific uses. For example, the surveillance section needs a block of numbers to process DA Form 4508 for a CC change. Therefore, surveillance needs a block of numbers to create the form. The control number is then assigned by the system when it is posted. Use DA Form 2064 to record document number sequences for all supply transactions for the account. A segmented document register may be established if various sections need to establish or create documents. The ultimate responsibility for these segments lies with the SRO.

a. Active file. This file contains document registers for the current year. The entire document register will be kept together until closed. When a new document register is opened on 1 January, all open documents will be transferred to that document register. In the remarks column on the old document register, for each entry carried forward, write “forward” in ink. Enter the documents carried forward on the new document register in document number sequence starting with the oldest first. Keep this file on DA Form 2064 in document number sequence. In the automated system, this will be done by the ACOM DMC system administrator. In the case of segmented document registers, treat those portions that are maintained on DA Form 2064 as a manual register.

b. Inactive file. This file contains document registers for past years. All the documents are either closed or have been brought forward to the current year. After the automated document register file is closed and the open documents are put into the new document register file, back up the old file electronically and maintain it with the history files for that year.

13–6. DA Form 5203

This form is the manual accounting ledger for ammunition, ammunition residue, ammunition components, and ammunition packaging material. Use it to record all transactions for a single item. Keep all forms for a single DoDIC (DoDIC master and supporting lot locator records) in the visible file.

a. Using DA Form 5203 as a Department of Defense identification code master record.

(1) Complete the bottom portion of the form before posting any transactions. Use DA Form 5203 (DoDIC Master/Lot Locater Record) as a master record for each DoDIC within a storage site. Annotate separate account codes in the remarks block with the quantity for each account.

(2) Enter transaction heading data at the top of the DoDIC master record as follows:

(a) Enter transaction data in columns A through I of the DoDIC master record. Enter one complete transaction, referred to as a DoDIC transaction, per line.

(b) Record up to 16 DoDIC transactions on each side of the DoDIC master record.

b. Using DA Form 5203 as a lot locator record.

(1) Make entries in blocks at the bottom of the lot locator record, before posting transactions. Enter transaction heading data at the top of the lot locator record. A lot locator record is required for each combination DoDIC, NSN, and lot number. Account codes do not have to be assigned to lot numbers.

(2) Enter transaction data in columns A through I of the lot locator record. Enter one transaction, referred to as a lot number transaction, per line. Record up to 16 lot number transactions on each side of the lot locator record. If more than one lot number is involved in the transactions, post two or more lot locator records.

c. Use of DA Form 5203 as a Department of Defense identification code master record or lot locator record for residue, components, and packaging material.

(1) This form is the accounting ledger for ammunition residue, components, and packaging materiel without DoDICs or NSNs assigned. Use it to record all transactions for a single item. Keep all forms for a single item in the visible file.

(2) Complete blocks 1 through 6 at the bottom of the form before posting any transactions. Enter transaction heading data in columns A through I of the master record. Enter one complete transaction, referred to as a master record transaction, per line. Record up to 16 transactions on each side of the master record.

(3) Use local SOPs (see app F and SB 755–1) to identify packaging material that requires accountability when turned in (see app G for a brass conversion chart). Those items returned by the customer unit that are placed in trash or disposed of as scrap (other than expended brass) do not require accountability at the ASP or direct support level.

13–7. Vouchers

The voucher is the evidence of a transaction in an SRA. Documents processed as adjustments, issues, shipments, turn-ins, or receipts, whether posted to the records or not, are vouchers.

a. There are three types of vouchers—

(1) *Adjustment voucher.* This voucher is used to make the recorded condition or quantity agree with the actual condition or quantity of items on hand. Post adjustment vouchers to the stock accounting record.

(2) *Credit voucher.* This voucher lists items deducted from the account. Credit vouchers decrease assets. Post them as losses. Issues and shipments are credit vouchers. Post credit vouchers to the stock accounting record.

(3) *Debit voucher.* This voucher lists items added to the account. Debit vouchers increase assets. Post them as gains. Receipts and turn-ins are debit vouchers. Post debit vouchers to the stock accounting record.

b. Mark vouchers that are canceled or rejected for any reason as “cancelled” or “rejected.” Write the reason for cancellation or rejection on the voucher. The SRO signs the revised voucher. If the voucher was posted to the stock accounting record, reverse the posting. Make a second posting notation on the voucher. Prepare a memorandum for record to explain what happened and enter the voucher number on it. File the memorandum for record as a completed document and keep a copy with the original voucher.

c. Hold incomplete vouchers in the suspense file until they are completed. Examples of incomplete vouchers are those that have a wrong signature, missing signature, missing date, statement missing, or backup document. Ensure that only completed vouchers are filed in the completed voucher file.

d. When a voucher is missing, make a thorough search. If the voucher is not found, file a certificate in the voucher file in place of the voucher. In the Remarks column of the document register entry for the missing voucher, enter “lost.” The certificate must include—

(1) All data in the document register entry for the missing document and any applicable posting data.

(2) An explanation of actions taken to find the missing document.

(3) Copies of correspondence or documents that prove all possible sources were checked for the missing voucher.

(4) The SRO’s signature and date.

13–8. Completed voucher file

This file has a copy of each voucher processed as an adjustment, issue, shipment, turn-in, or receipt, whether posted to the stock accounting record or not. Start a new file each calendar year.

a. File all vouchers in document number sequence. Mark vouchers requiring posting to the stock records to show they were posted before they were filed. After posting the voucher, the posting clerk writes “posted,” the Julian date, and their initials in any blank space on the face of the voucher. When a posting block is provided on the voucher, use it.

b. The SRO verifies the accuracy of all completed vouchers posted to the account. Check completed vouchers before filing them to make sure no postings were overlooked.

c. File a voucher to support each posting to the SRA. File canceled vouchers to support their cancellation. There must be at least one piece of paper to support each voucher number.

d. File completed vouchers in voucher number sequence in manila folders, 100 vouchers to each folder. Separate files will not be created for each type of transaction or customer. All types of transactions will be filed together. However, create a separate file for each direct support customer (unit) for reconciled training issues. This file will contain a copy of all the necessary documentation needed to prove expenditure or turn-in of ammunition issued for training. File these documents in issue-voucher-number sequence with all supporting documentation attached. Label the folders.

e. Do not remove vouchers from the voucher file except when removal is specifically authorized by the SRO. Before releasing any voucher from the file, prepare DA Form 543 (Request for Records) in two copies. Have the person receiving the voucher sign and date both copies of DA Form 543 (Request for Records) for the voucher. Place one copy of DA Form 543 (Request for Records) in the voucher file in place

of the removed voucher. Give the other copy of DA Form 543 (Request for Records) to the SRO to monitor the return of the voucher. This requirement does not apply to ASP personnel during duty performance, nor does it apply to auditors and inspectors during an audit or inspection unless the voucher is removed from the immediate work area.

13–9. Suspense voucher file

This file contains a copy of adjustments, requests for issue, pending shipments, requests for cancellation, reports of excess, requests for turn-in, unreconciled training issues, and any other incomplete voucher until they are completed. This file has four sections. File suspense vouchers in document number sequence within each of the following sections:

a. Due in status section. This file contains the incomplete vouchers for turn-ins and receipts. After posting DA Form 4999 (Due In Record), place a copy of each in transit-in notification (IIN) or incomplete request for turn-in in this file, pending completion. Also file a copy of each document and status card received later. File all the documents on each document number together so that the oldest is in the back and newest is in the front. Hold all documents of each document number until the items due in are received. When filing the receipt voucher or cancellation confirmation is the completed voucher file, include the supporting documents.

b. Due out status section. This file contains the incomplete requests for pending shipments, issues, and reports of excess. After posting DA Form 1298 (Due Out Record), place a copy of each incomplete request for pending shipment in this file. File the documents related to each document number together so that the oldest is in the back and newest is in the front.

c. Incomplete voucher file. Place a copy of each incomplete adjustment, and any other incomplete voucher that must be posted to the stock records, in this file.

d. Training issue reconciliation file. Place a copy of each training issue in this file. As turn-ins and other documentation are received to support the expenditure or reconciliation of the issue, add them behind the issue document. When all necessary documentation is received to support the complete reconciliation (when all ammunition and residue is accounted for), mark the front of the issue document “reconciled” and file the complete packet in the unit reconciliation file.

13–10. Stock record file

a. Active stock record. This file contains a stock record set for each item on hand or authorized for stockage. These records are required for accountability and asset visibility or ammunition, ammunition residue, components, and packaging material.

(1) A stock record set contains at least DA Form 5203 (DoDIC Master/Lot Locater Record), DA Form 4999 (Due In Record), and DA Form 1298 (Due Out Record).

(2) File stock records in visible file cabinets in DoDIC sequence. File lot locator records that support each DoDIC master record in NSN sequence. Reserve some empty card pockets at the bottom of each visible file drawer to accommodate card rearrangement as changes in stockage occur.

(3) For an automated system, this will consist of the daily backup of the data files. These files must be backed up each day that transactions are posted. No fewer than three backups will be maintained because recovery is more likely should a problem arise with the database.

b. Inactive stock record. This file contains stock accounting records that were completed but their balances carried forward or for items at zero balance.

(1) When a stock record set (see para 13–3) is removed from the active stock record file, place it in this file. Keep this file in DoDIC-NSN-lot number sequence.

(2) The inactive stock record file for the system is the archived history file. This is the equivalent of the manual stock accounting system. The file is created during the end-of-day, backup process. This file must be backed up not less often than annually and stored in a safe place. Because ammunition records are kept by calendar year, this backup should be conducted on 31 December after running the end-of-day processes. Maintain the original disks for 5 years past the cutoff (31 December of the year it was backed up). For example, a history file created 31 December 2020 must be maintained until 1 January 2025. Printed history files may be used in addition to the file backup but not in place of the backup file.

13–11. Ammunition surveillance records and reports

a. All ammunition, ammunition components, and residue on hand at the depot, ASP, ammunition transfer and holding point, and AHA are subject to ammunition surveillance by inspection during movement, storage, and maintenance. Some examples of accountable documents are—

(1) *DA Form 3022–SG (Army Depot Surveillance Record).* Maintain inspection records on MHP for each lot number, SN, or group of ammunition on hand. The MHP inspection record has information on the technical history of the materiel, such as the results of all investigations, examinations, or tests, as well as any unusual or changing conditions that affect the ammunition and type of storage. Maintain surveillance record in MHP as outlined in paragraph 7–6.

(2) *DD Form 1650 (Ammunition Data Card).* When ammunition is renovated, modified, or regrouped, revised data cards are prepared by the unit performing the operations and are approved by the inspector in charge. The requirements for new ammunition data cards, including their distribution, are shown in MIL–STD–1167C and specific instructions from the national maintenance points. Enter the CC in the remarks section for materiel that does not meet the requirements for CC A because of functional defects found during initial or renovation acceptance testing. Include a statement explaining the reason for the CC.

(3) *Record notice of ammunition reclassification.* This lists ammunition suspected of being unsafe or defective. Such ammunition is placed under suspension to prevent the issue or use of a lot or item. This action is based on malfunction or mishap reports, malfunction tests, or inspection reports.

(4) *TB 9–1300–385.* These bulletins, issued by message and published by JMC and AMCOM, list up-to-date notices of worldwide ammunition suspension, destruction and release.

(5) *DA Form 2415 (Ammunition Condition Report).* This form reports failures, discrepancies, and other conditions of ammunition materiel.

b. The ASP will provide a stock status report to the surveillance section monthly or as required. This report will provide the necessary data to surveillance personnel for the performance of their periodic inspections.

c. The purpose of the lot number restriction file is to provide any necessary restriction data to the stock control clerks at the time of lot selection for issues and shipments. Those lots cleared for overhead fire may be located in this file. It is the surveillance section's responsibility to maintain the data in this file.

d. Within the system there is an explosive safety limits file that controls each storage magazine warehouse or pad. The information necessary to build or update each record should come from the surveillance section since the data required pertains to quantity distance, explosive weights allowed, and compatibility. The stock control section maintains this record with input from the surveillance section.

Section II

Stock Control Procedures

13–12. Catalog data

a. The primary source for ammunition catalog data is the AESIP, which provides the catalyst to manage, control, create, change, archive, and validate data, while providing a single global view of material supplies. Process cataloging of standard and nonstandard ammunition through the AESIP. The logistics support activity is responsible for the standard and nonstandard material and nonstandard line item number records in AESIP.

b. AESIP publishes and distributes the necessary catalog data for ammunition transactions supply via automated updates to the APSR. To gain access to the AESIP material database, submit a request as outlined in chapter 11.

c. Data for GMLRs is provided by the AMCOM.

d. If items are received that are not listed in AESIP, the information will be requested from the end user through the Enterprise Material Discrepancy and Challenge System which enables reporting material master data discrepancies, coordinates discrepancy resolution, and enables syndication of master data correction. Challenges may be initiated manually or automated.

13–13. Document numbers

All documents recorded in an SRA at the wholesale or retail level must have a system automated document control number. Documents initiated by customer units or other supply activities are vouchered under the APSR document number. Documents initiated by the ASP are also vouchered under the APSR document control number.

a. Document control numbers are 14 positions divided into 3 fields as follows:

(1) *Department of Defense activities address code.* The SRA SN is in positions 1 through 6 of the document control number.

(2) *Date.* The Julian date the document control number was assigned is in positions 7 through 10 of the document control number.

(3) *Serial number.* The SN of the document is in position 11 through 14 of the document control number. Do not duplicate SNs on the same day. Start with 0001 each day.

b. SROs may reserve blocks of SNs to segment the document register. Normally these will be assigned within the supply activity to various sections. A separate DA Form 2064 will be maintained for each segment of the document register. The SRO is responsible for each segment of the register since it is still part of the account.

c. When a document control number is canceled for any reason, write “cancelled” in the Remarks column of DA Form 2064 (Document Register for Supply Actions). Do not reuse canceled document control numbers. All supporting documentation will be filed as a completed document.

d. Unused document control numbers at the end of a series do not require cancellation.

13–14. Processing account code changes

Ammunition stocks are maintained at an SP by DoDIC, NSN, lot number, CC, account code, warehouse location and sometimes a management control number is assigned to the manufacturer’s part number and cage code in AESIP. An account code is a three-position code that identifies the owner or intended user of the ammunition. It may also explain the reason why the ammunition is reserved. Account codes changes are assigned by the material manager (for example, TSC or ESC, JMC, or Army Sustainment Command) when available above the ASP. When ammunition is found during an inventory or turned in under amnesty, place it in account code MAA (excess).

a. Notification. Material managers direct account code changes for assigned ASP activities using the appropriate system of record, email message, or memorandum format. The memorandum must be signed and dated by the material manager directing the account code change. Each message will have sequential SNs and be transmitted to all subordinate ASPs. If the ASP is missing a message, it can be requested from the material manager. Account code changes conducted as a result of ammunition becoming unserviceable are exempt from this paragraph and can be directed by the QASAS and accountable officer.

b. Posting account code changes.

(1) When an account code message is received from the material manager, it is forwarded to the stock control clerk.

(2) The stock control clerk will assign a document control number to it and return it to the stock records section.

(3) The stock records clerk will then post the account code changes as directed in the message within 1 business day of receipt. Mark the Posted option, initial and date the message, and then forward it to the document register clerk.

(4) The stock control clerk will close the transaction on the document register file and file the voucher in the completed voucher file.

(5) When the account code change has been posted, associated transactions will be sent to the directing DMC via AIS of record. If automated means are unavailable, stock control personnel will perform a screen print identifying what account changes were made with the associated document number and file with stock records.

c. Creating an account code.

(1) DMCs will submit a request to the APSR help desk to create a new account code. If the request is for another service, the DMC will provide the help desk with the information provided by the requesting service. The DMC will notify DCS, G–4 of the account code request.

(2) The account code will be approved by DCS, G–4.

(3) DCS, G–4 will identify the routing identifier code and ownership or purpose code assignment.

(4) The DMC will create the approved account codes in the APSR and align with the routing identifier code and purpose code within the associated DMC DoDAAC.

d. Project code management at the wholesale level.

(1) Requests for project codes will be submitted to JMC Material Master Cell and the APO for approval.

(2) JMC Material Master Cell and APO will align the project code with a single ownership or purpose code (see app H for ownership or purpose codes and action codes for guided missiles and large rockets).

(3) Once approved, the request will be sent to AMC Logistics Data Analysis Center for creation and broadcasting from AESIP to LMP.

13–15. Processing condition code changes

The QASAS or equivalent determines the need for CC change based on an inspection, a NAR, MIN, AIN, or inventory control point-directed written requests for a specific quantity of materiel to be put in CC D for testing. Surveillance personnel or certified military personnel will use DA Form 4508 (Ammunition Transfer Record) to notify stock control of ammunition suspensions, function tests, and inspections that result in changes in CC for on-hand stocks.

a. Posting condition code changes at the retail level.

(1) Upon receipt of DA Form 4508 (Ammunition Transfer Record) from the surveillance section, the stock control clerk—

(a) Sends DA Form 4508 (Ammunition Transfer Record) to the document register clerk who assigns a document number to the form, posts it to the document register as an open action, and returns it to the stock control clerk.

(b) Posts the lot locator record or SN record, as appropriate.

(c) Posts the CC change to the applicable DoDIC master record.

(d) Updates the magazine data card with the correct CC.

(e) Marks the Posted option and the posting date on the face of DA Form 4508 (Ammunition Transfer Record), then initials the entry.

(f) Sends DA Form 4508 (Ammunition Transfer Record) to the document register clerk who closes the entry in the document register and files the form in the active supporting voucher file. Stock control is required to screen print the posting and file it to stock records.

(2) Once the updated CC is processed and posted in the APSR, the QASAS or safety individual with approval authority in MHP reviews the remarks within MHP inspection module to determine whether the CC change type and reason for the change are aligned and reasonable.

(3) If discrepancies are noted, the QASAS will contact the initiator of DA Form 4508 (Ammunition Transfer Record) and DSR remark and require correction in the APSR. The QASAS will receive a daily file, review monthly, and sign and date the file.

(4) When CC change impacts user entity assets, the QASAS will submit an ammunition CC report through MHP to Navy and Marine Corps item managers or through the Global Control Point to Air Force item managers if required.

b. Posting condition code changes at the wholesale level. For CC changes processed from MHP to LMP, there is no requirement for DA Form 4508 (Ammunition Transfer Record). If MHP is down, or if the MHP/LMP interface is down and the CC change must be made manually in LMP, DA Form 4508 (Ammunition Transfer Record) is required. The form must be initiated by a QASAS or equivalent and must be approved and signed by a QASAS with approval authority prior to the posting in LMP. Once the CC change has been manually posted within LMP, DA Form 4508 (Ammunition Transfer Record) must be uploaded to the material document header text of the associated posting via MB02.

(1) Upon completion of an inspection, a QASAS or equivalent updates DSR comments within MHP and then workflows the DSR comments and proposed CC change for approval. Once the designated quality assurance personnel approves the comments and CC change, the transfer posting must update LMP within 3 calendar days.

Note. When the MHP/LMP interface is functioning as designed, the approved DSR comments and CC change will process within the same day.

(2) For all materiel with shelf life or service life characteristics, the date of next inspection will be set to the shelf life expiration date or the next cyclical inspection, whichever comes first. Dates of next inspection will be updated at first touch, unless otherwise notified.

13–16. Processing issues

a. Transfers. An issue is the transfer of ammunition stocks from an ASP activity to an authorized user. Using units request ammunition by submitting DA Form 581 (Request for Issue and Turn-In of Ammunition). Issues decrease ammunition stocks on hand at ASP. Post issues as losses on the lot locator record or SN record (as applicable) and the DoDIC master record. Post the lot locator record or SN record first.

b. Authority to request or receipt for supplies. The ASP activities maintain DA Form 1687 (Notice of Delegation of Authority - Receipt for Supplies) for all personnel authorized to receive ammunition.

(1) On DA Form 1687 (Notice of Delegation of Authority - Receipt for Supplies) submitted to the ASP activity, using unit commanders must designate unit members authorized to receive class V items. DA Form 1687 (Notice of Delegation of Authority - Receipt for Supplies) is required to have either a handwritten or digital signature (not both) for the identified authorized representatives, accompanied by the assumption of command or appointment orders (for example, class V accountable officer, brigade ammunition officer), for the individual delegating the authority.

(2) Before accepting DA Form 581 (Request for Issue and Turn-In of Ammunition) for processing at the ASP activity, ensure the request is properly authenticated.

c. Authentication.

(1) A designated officer from the customer unit must authenticate all valid requests for issue of ammunition submitted to a ASP activity. The commander who controls the ammunition allocation may designate a responsible person to authenticate (sign block 14a on DA Form 581 (Request for Issue and Turn-In of Ammunition)) ammunition requests (for example, the brigade ammunition officer or the representative supply officer). Authentication gives commanders control of ammunition issues. This designation will be provided to the ASP activity on DA Form 1687 (Notice of Delegation of Authority - Receipt for Supplies).

(2) The authentication DA Form 1687 (Notice of Delegation of Authority - Receipt for Supplies) must be accompanied by the appointment orders or assumption of command orders for the individual delegating the authority.

d. Types of issues. Issues are either routine, or they are immediate or emergency.

(1) Routine issues request ammunition for pickup on a specific RDD. Most peacetime issues are routine and normally involve two actions. The first action establishes a due out for the requested stocks. The second action (the actual issue) reduces the balance on hand. Do not confuse routine issues with the forecasts that users submit to TAMIS to ensure sufficient stocks are on hand to support projected training or operating requirements.

(2) Immediate or emergency issues provide ammunition for unscheduled or short notice requirements for combat issues. Establish a due out if the issue is not required within 24 hours, so visibility of the pending issue is not lost. Post the loss to the lot locator record and DoDIC master records as soon as possible.

e. Processing issues.

(1) Normally, a routine issue is not fully processed until 1 to 3 days before the RDD, since actual lot and location selections are involved. However, limited processing is required when a routine request for issue is received. Edit the request (ensure it is filled out properly), use its assigned document number, and post the request to the due out record. File the request in a suspense file. Process RDD suspense requests a given number of working days before the RDD (normally 1 to 3 days). On the date processing begins, the document control section forwards DA Form 581 from the suspense file to the stock control section for review and selection of appropriate DoDICs and CC stocks by lot number and location. Account codes may also be used to determine which stocks are issued. The chief of the stock control section gives stock selection guidelines, per issue priorities established for the ASP activity, for selecting stocks for issue.

(2) Take the following data from the lot locator record for the ammunition selected for issue and enter it on DA Form 3151:

(a) NSN or equivalent type of stock number.

(b) Lot number.

(c) CC.

(d) Location.

(3) After completing DA Form 3151 (Ammunition Stores Slip), send it to the surveillance section for lot clearance and restriction certification. The surveillance section returns the approved DA Form 3151 (Ammunition Stores Slip) to the stock control section. If more than 30 days pass before the issue is completed, the surveillance section must recheck the document.

(4) The checker uses the approved DA Form 3151 (Ammunition Stores Slip) to select stocks and load items on using unit vehicles. The checker initials each line item and returns DA Form 3151 (Ammunition Stores Slip), showing quantities loaded, to the stock control section for final processing.

(5) Stock control reviews entries and completes DA Form 581 (Request for Issue and Turn-In of Ammunition).

(6) The customer unit is provided a copy of the system-generated DA Form 581 (Request for Issue and Turn-In of Ammunition) and DA Form 3151 (Ammunition Stores Slip). The unit will also receive documents for live and residue turn-ins.

(7) When the issue is completed, post it to the accountable records. Post the due out record, lot locator record or SN record, and the DoDIC master record (in that sequence).

f. Filing. After the issue is completely processed, including posting to the document register and stock records, file DA Form 581 (Request for Issue and Turn-In of Ammunition), DA Form 3151 (Ammunition Stores Slip), and any additional supporting documents at the ASP activity in the completed voucher file (see para 13–8) by document control number. Training issues will have a copy of DA Form 581 (Request for Issue and Turn-In of Ammunition), a copy of DA Form 3151 (Ammunition Stores Slip), and a copy of the residue requirements placed in the training issue reconciliation suspense file (see *para 13–9d*).

g. Issues for demilitarization or destruction. Ammunition stocks identified for demilitarization or destruction are issued by the ASP activity on DA Form 581 (Request for Issue and Turn-In of Ammunition). Process them as follows:

(1) Assign a document control number from the document register.

(2) For demilitarization, place an X in Issue (block 1). In Remarks (block 28), enter the statement "ammunition certified unserviceable by qualified inspector and authorized for destruction under the provisions of DA Pam 750–8." Show the ACR number, authority message number, or other reason or authority for disposal. Enter the signature block of the individual certifying the destruction and a blank line to sign.

(3) The stock control section prepares and forwards DA Form 3151 (Ammunition Stores Slip) to the surveillance section for verification of lot serviceability.

(4) The surveillance section returns the verified DA Form 3151 to stock control. Stock control forwards DA Form 581 (Request for Issue and Turn-In of Ammunition), DA Form 3151 (Ammunition Stores Slip), and a residue requirements list for the items issued or DA Form 581 (Request for Issue and Turn-In of Ammunition) to the storage section for issue to the unit that will demilitarize or destroy the ammunition. The individual receiving the ammunition will sign and date in block 31. Stock control keeps suspense file copies of all the forms in the due out file.

(5) When the demilitarization or destruction is completed, the individual certifying the destruction will sign and date in block 28. DA Form 581 (Request for Issue and Turn-In of Ammunition) is then returned to the stock records section, now serves as a demilitarization certificate, and is posted to the stock records. The residue turn-in is handled the same as a normal residue turn-in.

13–17. Processing turn-ins

a. Accepting ammunition. ASP activities must accept ammunition, explosives, and residue turned in by using units. Units will submit turn-ins using DA Form 581 (Request for Issue and Turn-In of Ammunition). A turn-in causes an increase to ammunition stocks at the ASP activity. Post a unit turn-in as a gain to the lot locator record or SN record (as applicable) and DoDIC master record. Use the document number from DA Form 581 (Request for Issue and Turn-In of Ammunition).

b. Use and edit of DA Form 581 (Request for Issue and Turn-In of Ammunition) by Standard Army Ammunition System. Using units will use separate DA Forms 581 (Request for Issue and Turn-In of Ammunition) to turn in serviceable ammunition, unserviceable ammunition, and residue. Ammunition residue is defined as components and packaging materiel identified as recoverable by the DMC activity. The ASP activity's SOP will identify items customers are required to turn in. Turn-ins of live ammunition are considered serviceable when they have not been opened or the seals are not removed or broken. Other live turn-ins are considered unserviceable. The stock control clerk who receives DA Form 581 (Request for Issue and Turn-In of Ammunition) edits it to ensure the form is complete and correct.

c. Processing DA Form 581 (Request for Issue and Turn-In of Ammunition).

(1) Normally a turn-in will not require preposting to the due in record. It can be done, though, for items in short supply to better manage those assets.

(2) Assign the turn-in a document number from the document register.

(3) Prepare DA Form 3151 (Ammunition Stores Slip) from the information on DA Form 581 (Request for Issue and Turn-In of Ammunition). Select a tentative warehouse location based on the storage plan or from the stock records if the lots involved are currently on hand.

(4) Have a checker accompany the unit to the turn-in facility.

(5) Surveillance personnel will verify lot numbers, SNs, and dates of manufacture for items and CCs. The checker will verify count. Any items found damaged by other than fair wear and tear will require action by the unit (investigation per AR 15–6 or report of survey) before final action can be taken on the turn-in.

(6) Only those items listed on DA Form 581 (Request for Issue and Turn-In of Ammunition) will be accepted on that form. No items will be added to it. If additional CCs or lot numbers are present, note them on a blank DA Form 3151.

(7) The checker will initial each line item, sign and date DA Form 3151 (Ammunition Stores Slip) as the receiving checker, and return to the stock control office. The stock control section will transfer the data from DA Form 3151 (Ammunition Stores Slip) to DA Form 581 (Request for Issue and Turn-In of Ammunition). In the event items were noted on a blank DA Form 3151 that do not appear on DA Form 581 (Request for Issue and Turn-In of Ammunition), the unit will have 24 hours to process another DA Form 581 (Request for Issue and Turn-In of Ammunition) to cover those items. The ASA (ALT) will ensure legible handwritten names, signatures, and data for all personnel who issued and received the ammunition is annotated on the all forms.

(8) Report only live serviceable turn-ins to TAMIS. Until surveillance is completed, charge any items found unserviceable against the unit's TAMIS account.

(9) The stock records section will complete DA Form 581 (Request for Issue and Turn-In of Ammunition).

(10) Provide the customer unit with a copy of the system-generated DA Form 581 (Request for Issue and Turn-In of Ammunition) and DA Form 3151 (Ammunition Stores Slip). Also provide a copy of any DA Form 3151 (Ammunition Stores Slip) that was for items received without DA Form 581 (Request for Issue and Turn-In of Ammunition).

(11) File any completed voucher in the completed voucher file. File incomplete vouchers in a due in suspense file.

d. Training and testing turn-in reconciliation.

(1) Accomplish reconciliation of training and testing ammunition issues within 5 working days of the training or testing completion date listed on the issue document.

(2) The stock control clerk will compare the training event codes, issue document numbers, and lot numbers or SNs on the issue with that information on the turn-ins to ensure they match. If discrepancies are found, the SRO will resolve them.

(3) Determine quantities of residue and packing materiel required by subtracting the quantities used to pack the live turn-ins from that issued on the issue. Determine brass requirements by weight conversion.

(4) Items required for turn-in with short quantities must have a valid DA Form 5811 (Certificate - Lost or Damaged Class 5 Ammunition Items) or other evidence of a pending investigation (see AR 700–28).

(5) Special items are AA&E identified on the Army master data file (AMDF) with a CIIC of 1 through 9, N, P, Q, R, or Y which requires DA Form 5692 (Ammunition Consumption Certificate). This must be present to reconcile the document.

(6) Investigate losses of residue from CIIC 1, 5, 6, or C items per AR 15–6, and report them per AR 190–11.

(7) If the issue cannot be reconciled within 5 days of the completion of the training date, no further issues will be made to that training unit until such time as the issue is reconciled.

(8) Complete MFDR if applicable, outlined in appendix D and available on the Army Publishing Directorate website.

(9) When the reconciliation is complete, the stock control clerk stamps or marks the suspense copy of the issue from the unit reconciliation suspense file as reconciled, initials it, and dates it. File all documents supporting the reconciliation as stated in *paragraph 13–9d*.

e. Amnesty turn-ins. Amnesty turn-ins will be conducted per chapter 12.

f. Completing turn-in processing. When turn-in processing is completed, including posting to the document register within 1 business day and stock records, the stock control clerk will mark the Posted option, initial, and date DA Form 581 (Request for Issue and Turn-In of Ammunition) or DA Form 3151 (Ammuni-

tion Stores Slip). The stock control clerk will file DA Form 581 (Request for Issue and Turn-In of Ammunition) and any additional documents supporting the turn-in, in the completed voucher file by control number. This file will contain the original DA Form 581 (Request for Issue and Turn-In of Ammunition) and DA Form 3151 (Ammunition Stores Slip). The unit reconciliation file will contain copies.

13–18. Processing shipments at the retail level

a. Movement and transfer.

(1) Shipments are defined as the movement and transfer of ammunition stock and are usually directed by the material manager or item manager. Most often, shipments are made to other ASP activities, but they are also made to other activities, or storage locations outside the corps.

(2) Shipments decrease ammunition stock on hand. Process shipments when the notice to ship is received at the ASP activity. In some instances, a shipment directed for an RDD or ration distributing point (RDP) far in the future may require an obligation of stock for the shipment.

b. Directive. DMC directs ammunition shipments by sending a message with a transaction code for in-transit from directive, intercorps directive, or location transfer directive to the ASP activity that will make the shipment. RDT&E sites usually ship at the direction of customers, not the DMC. A directive is sent for each quantity and DoDIC, CC, or account code to be shipped. The directives inform the consignee and RDD or RDP that the ASP activity needs to prepare DD Form 1348 (DoD Single Line Item Requisition System Document (Manual)) and DD Form 1348–1A (Issue Release/Receipt Document) for the shipment (see AR 725–50 for preparation instructions for DD Form 1348–1A (Issue Release/Receipt Document); see DTR 4500.9–R for preparation instructions for DD Form 1348 (DoD Single Line Item Requisition System Document (Manual))).

c. Shipment processing.

(1) When directives for shipment are received, the stock control section reviews the information, selects the stocks, and obligates them on the due out record for shipment. Post DA Form 1298 (Due Out Record) immediately. For shipments where the RDD or RDP do not require immediate selection, file the directives in suspense until stock selection is necessary.

(2) When stock selection is made, stock control prepares DA Form 3151 (Ammunition Stores Slip) and sends them to the surveillance section to verify the condition and suitability of the stocks selected for shipment. When approved, an information copy of DA Form 3151 (Ammunition Stores Slip) is given to the storage section for planning shipment requirements. The remaining copies are placed in suspense files until there is transportation for shipping.

(3) The transportation section prepares DD Form 1348 (DoD Single Line Item Requisition System Document (Manual)) and submits the request to the local transportation and movement officer. Prepare DD Form 1348 per DTR 4500.9–R.

(4) Inventory and inspect the shipment before and after loading. Send the completed DA Form 3151 (Ammunition Stores Slip), signed by issuing checker, to stock control for final processing.

(5) The stock control section verifies the returned DA Form 3151 (Ammunition Stores Slip) against suspense copies and prepares DD Form 1348 (DoD Single Line Item Requisition System Document (Manual)) and DD Form 1348–1A or DD Form 1348–2 (Issue Release/Receipt Document with Address Label). Surveillance and transportation sections review DD Form 1348 (DoD Single Line Item Requisition System Document (Manual)) and release the shipment. Surveillance personnel will sign and date shipping documents.

(6) Post the stock records using the completed DA Form 3151 (Ammunition Stores Slip), DD Form 1348 (DoD Single Line Item Requisition System Document (Manual)), and DD Form 1384 (Transportation Control and Movement Document) within 24 hours of transportation pickup and prepare the transaction records for each DoDIC, CC, or account code shipped. Use appropriate transaction codes, such as the Integrated Facilities System or lateral transfer shipment. Enter the transaction record data and forward to the DMC with the next transaction report.

(7) Mark, assemble, and file all documents supporting the shipment using the document number assigned from the document register. When the shipment is released, the document control clerk closes out the document register entry and files the supporting document.

(8) Prepare a REPSHIP message if required per DTR 4500.9–R.

13–19. Processing shipments at the wholesale level

a. Delivery order.

(1) A new delivery order is generated in LMP for a JMC installation. The delivery orders are generated with an A4 delivery block and LMP suggested lots, which are derived using the automated batch determination based on the first in, first out rule. A supply technician or equivalent reviews LMP for A4 blocked delivery orders.

(2) For non-serialized stocks, the supply technician or equivalent identifies storage locations for the LMP suggested lots obligating the material for shipment. A lot substitution may be performed if exception data identifies specific stocks. The A4 block is then removed and LMP automatically assigns the delivery order with an A5 block.

(3) For serialized items, the depot inventory personnel must visit the actual storage location to obtain an obligation scan. An obligation scan consists of using a hand-held terminal to scan the barcodes on the munitions identified for shipment. A supply technician uploads the obligation scan into LMP to obligate materiel to the delivery order. The A4 block is then removed and LMP automatically assigns the delivery order with an A5 block.

b. Shipment processing.

(1) The QASAS or equivalent reviews LMP for A5 blocked delivery orders. They check the obligated lots for any suspensions or restrictions in MHP or other locations and conduct an inspection on the assets, if necessary. If there are no suspensions or restrictions, the QASAS or equivalent updates MHP and approves the vendor lots in LMP by removing the A5 delivery block. If there is a suspension or restriction, the vendor lot is rejected and alternate munitions will need to be selected for shipment. If no other assets are available that meet the requirements of the sales order, the installation will process a denial within LMP via ZSD_DENIAL.

(2) When picking for shipment, the installation personnel conduct a physical count of the munitions at the magazine and compare the items being pulled from the magazines to the documentation. The munitions are loaded into a truck and moved to the shipping building using a warehouse request. The installation personnel electronically signs and dates blocks 28 and 29, staged by, on DD Form 1348–1A (Issue Release/Receipt Document) in LMP.

(3) Material handlers use the loading instructions and DD Form 1348–1A (Issue Release/Receipt Document) to load the conveyance. A load verification scan using the hand-held terminal is conducted to verify the correct material, lot numbers or SNs, and quantity are loaded. Additionally, each installation will maintain all load verification logs on their local shared drive for 6 years and 3 months.

(4) The transportation management specialist receives the delivery order, configures the delivery orders into shipments, creates an ETA, and records the expected shipping date in LMP. The ETA populates a list of carriers and a carrier is determined based on predetermined criteria such as rates, schedule, and availability.

(5) The QASAS or certified and trained counterpart inspects the shipment and certifies the material is properly classified, described, packaged, marked and labeled, and are in the proper CC. If there are no discrepancies, the QASAS or certified and trained counterpart mark the load inspected in LMP, which populates their signature in block 32 and date in block 33 on DD Form 1348–1A (Issue Release/Receipt Document). The QASAS or certified and trained counterpart also completes DD Form 1907 (Signature and Tally Record), DD Form 626 (Motor Vehicle Inspection (Transporting Hazardous Materials)), and the bill of lading. The carrier signs the bill of lading and DD Form 1907 (Signature and Tally Record) to indicate that they have accepted custody of the shipment.

(6) After the carrier has accepted custody of the material and the conveyance has departed the installation, the transportation specialist marks the delivery for ship-end in LMP, and if all edits or system controls are passed a post goods issued, 601 or 991 goods movement is posted and the material are removed from the APSR. The transportation specialist queries MB51 to verify successful posting and updates the material document header text with the TCN from the shipment and this completes the shipment process.

(7) The post goods issued must be posted within 3 calendar days of the truck out time in the associated task. If the installation is unable to successfully post the shipment within the required timeframe due to a systemic error, a JMC LMP help ticket should be opened and submitted to JMC for resolution. If a ticket already exists, the new delivery number or document number should be added to an existing ticket.

13–20. Processing receipts

a. Ammunition received. The ASP activities receive shipments of AEs as directed by the DMC activity, based on reported issues and remaining on-hand stockage levels. An RDT&E ASP activity may receive

shipments of AEs from other shipping activities, such as manufacturers or commercial activities, in support of RDT&E testing. Receipts are defined as ammunition received from an ammunition supply activity and do not include unit turn-ins. Receipt of ammunition shipped from other ASP activities or higher echelon class V activities increases ammunition stock on hand. Upon receipt, an assigned supply activity document number or TCN, post the transaction to the due in record, lot locator record or SN record (as applicable), and the DoDIC master record.

b. Advance shipment notice.

(1) ASP receives advance notice of an ammunition shipment from the DMC. All essential data about the shipment is on the IIN message, including DoDIC, CC, quantity, document number (TCN), account code, and RDD.

(2) Do not record the IIN message on the document register. Do not assign a document number to the IIN message.

(3) The stock control section posts the message to the due in record. The stock control, storage, and surveillance sections use the information on the IIN message for planning.

c. Receipt processing.

(1) The accountable officer or their designated representative will sign block 22 and date block 23 on DD Form 1348–1A (Issue Release/Receipt Document) upon receipt of a shipment.

(2) The stock control section prepares DA Form 3151 (Ammunition Stores Slip) before the ammunition is off-loaded and stored. Warehouse locations are selected from the storage plan. DA Form 3151 (Ammunition Stores Slip) is forwarded to the storage section.

(3) When the storage section sends the completed DA Form 3151 (Ammunition Stores Slip) signed as the receiving checker and dated with initials for each line item to stock control, the stock control clerk compares the DoDIC, NSN, lot number, CC, and quantity received to DA Form 3151 (Ammunition Stores Slip) and DD Form 1348–1A (Issue Release/Receipt Document). If there is a discrepancy, the storage section rechecks the actual receipts. If rechecking does not resolve the discrepancy, prepare SF 364 (Report of Discrepancy (ROD)) and local directives. To show receipt of the item, write the quantities and CCs actually received.

(4) Post the quantities received by DoDIC and CC to the lot locator or SN record (as appropriate) and the DoDIC master record. If the account code is not known, contact the DMC or SRO for a determination. Once posted, the stock control clerk will mark the Posted option, initial, and date DD Form 1348–1A (Issue Release/Receipt Document) and DA Form 3151 (Ammunition Stores Slip).

(5) File all advance shipment notices with supporting documents. Prepare transactions with the appropriate transaction code for each DoDIC, account code, and CC received. This reports the receipt to the DMC.

(6) All documents supporting the receipt are completed, assembled, and filed in SAAS document number sequence. When the receipt is completed, the document control clerk closes out the document register entry and files the documents.

(7) Retail activities will submit a materiel receipt acknowledgment electronically via AIS of record. If the associated system of record is unavailable, receipt acknowledgment will be provided to the consignor by returning signed copies of DD Form 1348–1A (Issue Release/Receipt Document) by mail or electronic means.

(8) AR 725–50 addresses the logistics intelligence file documentation and customer responsibilities.

d. Partial receipts. Process partial receipts the same way as complete receipts. Prepare receipts transactions by reporting each DoDIC, account code, and CC to DMC. The transaction quantity shows the quantity actually received by DoDIC and CC. Do not close out the document register entry until all partial receipts have arrived.

e. Receipt without advance notice. When a shipment is received and there is no advance notice of the shipment, process the receipt per *paragraph 13–19a*.

f. Container receipts for depot and retail level. If more than 100 containers are received in one receipt, the ammunition supply activity will have 24 hours to post CAT I and II and up to 7 days to post the entire shipment from the time of receipt. If less than 100 containers are received in one receipt, the ammunition supply activity will have 24 hours to post CAT I and II and 48 hours to post the entire shipment.

g. Reconciliation.

(1) All ammunition shipments from depot to retail sites will be reconciled upon completion of receipt processing. Conduct reconciliation between the physical material received and the REPSHIP for CONUS receipts and the total asset visibility file for OCONUS receipts. Once complete and documented in a

memorandum for record (to include name of reconciler, date and time of reconciliation, quantities, document numbers, and SNs, if applicable), the memorandum for record will be provided via email to JMC APO and the CAM office within the prescribed timeframe—

(a) CIIC I or II within 24 hours after posting receipt.

(b) CONUS for all other ammunition within 24 hours after posting receipt.

(c) OCONUS for all other ammunition within 3 business days after posting receipt.

(2) JMC inventory personnel will then reconcile the retail site's submission to the corresponding DD Form 1348–1A (Issue Release/Receipt Document) within the APSR. Once the reconciliation is complete, create a memorandum for record stating name of the reconciler, date and time of reconciliation, quantities, document numbers, and SNs, if applicable. If any discrepancies are noted between physically received material and the DD Form 1348–1A (Issue Release/Receipt Document), discrepancies will be investigated with the responsible installation to correct the APSR and determine required corrective actions. All evidence of these reconciliations will be maintained for a minimum of 6 years and 3 months.

13–21. Processing receipts at the wholesale level

a. Ammunition received. Goods receipts will be posted directly to the CC annotated by the QASAS on the original receiving paperwork. Constructive receipts will post a 109 into the planned batch and immediately post the 309 to QASAS directed CC. For 101,501 receipts will post directly into the QASAS directed CC. Change in processing order will mean that the posting in LMP to the QASAS-designated CC will precede the creation of the inspection lot in MHP. The DSR comments and approval will occur after the LMP posting.

b. Advance receipt notice.

(1) Depots receive advance notice of an ammunition shipments. All essential data about the shipment is on the IIN message, including DoDIC, CC, quantity, document number (TCN), account code, and RDD.

(2) An appointment for inbound shipments is made via the Carrier Appointment System, phone call, or email, which allows trucking companies to request an appointment at JMC installations.

c. Receipt processing.

(1) The QASAS or equivalent conducts a damage in transit inspection. The QASAS or equivalent verifies the outer pack quantity and validates the accuracy of the documentation by checking the DoDIC, NSN, vendor lot number, and SN. The QASAS determines the serviceability and annotates the appropriate CC for receipt. Additionally, the QASAS notes any discrepancies on the documentation, marks the receipt document with the type of inspection, initials, and dates. If damage is noted and the QASAS or equivalent is unable to determine the serviceability, they may direct the assets to be receipted into CC–K and moved to the surveillance work area. Assets held in CC–K will be updated within 45 calendar days.

(2) The munitions handler or equivalent will verify the count and characteristics between the 2D barcodes and the physical munitions. For any materiel received where the 2D barcodes are erroneous or not present, the munitions handler will create and place new 2D barcodes for each pallet of munitions.

(3) Evidence of the munitions handler's reconciliation is the presence of the receiving scan file uploaded within the task via IW37N in LMP or the installation's local share drive.

(4) The receipt posting personnel receives the documentation, retrieves the scan files via task or local drive, and reconciles the scans with the receipt documentation. If there are discrepancies noted, the receipt personnel will return the paperwork to the munitions handler for further validation and correction.

(5) The receipt posting personnel will upload the receipt scan to LMP and post the characteristics identified on the receiving paperwork. The depot receipt personnel verifies that the receipt was posted in LMP successfully and all characteristics align to receiving paperwork and JMC guidance via a MB51 query. The receipt posting personnel then uploads the original receiving paperwork to the material document header text via MB02.

(6) If a systemic error is preventing completion of the goods receipt, an LMP help ticket should be submitted to JMC LMP team. If the error is reoccurring, the installation can send an email to the JMC LMP help desk and request additional document numbers be added to existing tickets.

13–22. Processing intradepot transfers

a. Movement of stocks. An IDT is the movement (rewarehouse) of ammunition stocks from one storage magazine or pad to another storage magazine or pad within the same SP (ASP). Do not change the total balance on hand by DoDIC, CC, lot number, and account code at the SP (ASP).

b. Preparing and posting intradepot transfer transactions.

(1) Prepare DA Form 3151 (Ammunition Stores Slip) for each item scheduled for rewarehousing. Multiple lines may be used. Assign a document control number from the document register to DA Form 3151 (Ammunition Stores Slip) and send the form to the storage section for action.

(2) After moving the stocks, update the magazine data card and return with initials next to each line item and signed DA Form 3151 to the stock control section.

(3) The stock control clerk posts DA Form 3151 (Ammunition Stores Slip) to the lot locator record or SN record, as applicable, within 24 hours. No entry is required on the DoDIC master record. After the posting is completed, the stock control clerk will mark the Posted option, initial and date DA Form 3151 (Ammunition Stores Slip), close out the entry in the document register, and file DA Form 3151 (Ammunition Stores Slip) in the supporting voucher file.

(4) DA Form 4508 (Ammunition Transfer Record) may be used in place of DA Form 3151 (Ammunition Stores Slip) for IDTs at depot level. However, only one NSN may be placed on the form. DA Form 4508 (Ammunition Transfer Record) generated at the retail level by QASAS will require stock control to create a DA Form 3151 IDT for location changes.

13–23. Inventory procedures

a. Inventories and adjustments. The purpose of inventory and adjustment is to—

(1) Verify the general condition, quantity, and location of ammunition stock by a physical inspection and count.

(2) Adjust stock record balances as required to match the results of the physical inspection and count.

b. Types of inventories. Conduct ammunition inventories as follows:

(1) *Scheduled wall-to-wall.* In this inventory, count all stock as of a specific date. In place of doing a wall-to-wall inventory under one control number, special inventories by warehouse maybe conducted. However, all storage structures must be inventoried within the prescribed timeframe. During a wall-to-wall inventory, all receipts, issues, obligations, and shipments are held until the inventory is over. Do not post transactions to the accountable stock records. If emergency issues and receipts are necessary, tightly control and supervise them to minimize discrepancies. Wall-to-wall inventory is coordinated with customers in peacetime and not permitted in wartime. The SSA commander may not close for more than 5 working days.

(2) *Scheduled cyclic.* In a cyclic inventory, a selected number of DoDICs are inventoried during a prescribed period so that all DoDICs on hand are inventoried at least once annually or as prescribed by AR 700–28. During a cyclic open inventory, processing and posting of receipts, issues, obligations, and shipments continue.

(3) *Damaged warehouse.* Damaged warehouse inventory is used only in wartime and then only against a warehouse that has been damaged or destroyed.

(4) *Special.* A special inventory is taken on selected ammunition items for a specific reason. Special inventories are conducted either by DoDIC, lot number, or warehouse.

c. Inventory time constraints. Conduct special inventories (DoDIC, lot number, or warehouse) within 1 workday. Conduct cyclic inventories for any single DoDIC in 1 workday. Do not exceed 5 workdays when doing a wall-to-wall inventory unless the support command or senior commander selectively authorize additional count days. In the ARNG or the Army Reserve, 10 days are allowed to complete the count. A 10-day extension may be approved by the state adjutant general or major Army reserve command. This does not include pre-inventory actions which must be completed while the ammunition supply activity remains operational.

d. Ammunition inventory requirements.

(1) Ammunition inventory frequency is outlined in AR 700–28. The intended use or account code for all ammunition falls into two categories: training and other. The inventory frequency is based on this intended use or account code and the CIIC. The only authorized source for the CIIC is the AMDF, which is FED LOG and is available through Logistics Information Warehouse in logistics support activity.

(2) Physically inventory all ammunition issued to units, including CAT I missiles and rockets (CIIC of 1, 5, and 6) in accordance with AR 190–11.

(3) Physically inventory all ammunition, including CAT I missiles and rockets (CIIC of 1, 5, and 6) at the retail ammunition supply activity (installation level) quarterly.

(4) Physically inventory depot and theater support activities' ammunition in CIIC codes 1, 5, or 6 (including CAT I) semiannually.

(5) For retail-level ammunition stored at TSAs, TSAs will follow the same inventory frequency stated in paragraph 13–23d(3).

(6) Physically inventory RDT&E stocks issued to testing activities monthly.

(7) Physically inventory other ammunition in CIIC codes other than 1, 5, or 6 annually.

(8) Conduct special inventories whenever—

(a) Non-clerical errors are found in recorded balances.

(b) There is materiel release denial (stocks cannot be shipped or issued as indicated or directed).

(c) Inventory discrepancies are found during a location survey.

(d) There is evidence of forced entry to a warehouse, magazine, or other storage area.

(e) If outer packages have been tampered with and confirmed by surveillance personnel.

(f) When directed by higher headquarters.

e. Location surveys.

(1) Location surveys physically verify the actual location of stocks in the ASP activity. A location survey must be conducted—

(a) To ensure that location data on the lot locator or SN record is correct.

(b) To verify that the balance on a given record is zero.

(c) To verify the accuracy of stock records when directed by the commander or accountable officer.

(d) Prior to a wall-to-wall inventory.

(2) Maintain the location accuracy as prescribed in AR 700–28. Develop a plan prior to the start of the location survey. This plan will contain the cutoff, starting, and completion dates mutually agreed upon by the warehousing, inventory, and stock control activities.

(3) Prepare DA Form 7890–SG (Inventory Control List) and DA Form 7891–SG (Inventory Count Sheet) to verify the location of stock on hand. Identify each DoDIC, NSN, lot number, and CC. Give a blank DA Form 7891–SG (Inventory Count Sheet) to the inventory team to record items not in designated locations. For control purposes, assign SNs to all DA Forms 7891–SG (Inventory Count Sheet). The forms will be assigned a document number by the system, including blank forms given to the inventory team. For locations using other approved accountability systems, use the inventory sheets provided by that system.

(4) Properly conducted location surveys identify the following errors on accountable records:

(a) A recorded balance but no recorded location.

(b) A recorded balance but stocks not at the recorded location.

(c) An unrecorded location and unrecorded balance of stocks.

(d) Identification of storage practices that require corrective action.

f. Sample inventories. Sample inventories are not permitted.

g. Annual inventory schedule. Each ASP will publish an annual inventory schedule that should be posted in TAMIS.

h. Recorded results. Record results of inventories on the stock accounting records within 1 business day after completion of the inventory.

i. Pre-inventory procedures. Make the following preparations for taking the inventory:

(1) *Schedule.* Schedule specific dates for the inventory.

(2) *Notification.* Notify supported units of the dates, type of inventory, and the types of transactions that are authorized for processing during the inventory.

(3) *DA Form 7890–SG (Inventory Control List) and DA Form 7891–SG (Inventory Count Sheet) generated by the Logistics Modernization Program.* Inventory count cards or sheets are usually preprinted. If they are not, the stock control section manually prepares a count card for each item by NSN, DoDIC, lot number, location, and CC. Assign each card a sequential SN starting with 0001. Prepare additional, serially numbered blank count cards for the inventory of unrecorded assets. Use count cards to record the amount of a particular item of ammunition that is on hand.

(a) The inventory control listing for the accountable officer includes the count card SNs, item nomenclatures, DoDICs, lot numbers, CCs, locations, and recorded balances.

(b) DA Form 7890–SG (Inventory Control List) for the inventory supervisor has the same information as the listing for the accountable officer except that the unit prices and recorded balances are omitted.

j. Inventory procedures.

(1) Inventory teams comprised of two personnel, a counter, and recorder make the count and record the balance for each item on DA Form 7890–SG (Inventory Control List) and DA Form 7891–SG (Inventory Count Sheet). Members of the team sign, date, and return the forms to the inventory supervisor.

Maintain strict control over all inventory count sheets and ensure that each count card is signed for by SN or document number. All applicable data must be annotated on the inventory count sheet, that is, no palette, package per palette, quantity per package, or count quantity.

(2) The inventory supervisor checks the SN of the count sheets on the control listing, ensures the forms are complete, ensures that all forms out for count are returned, and (after the initial count is completed) gives the count sheet and control listing to the accountable officer.

(3) The accountable officer checks the SNs of the count sheet against the control listing, identifying any discrepancies of an overage or shortage and annotating the dollar value if applicable.

(4) When the overage or shortage value for a count sheet is $1,000 or less, the accountable officer may accept the balance on the count card as correct for stock record purposes without a recount. This option applies only to nonsensitive or pilferable items as defined in AR 190–11 and is indicated on the AMDF. When this option is used, post the new balance to the stock records directly from the count card. Use the document number assigned to the control listing. When an overage or shortage is more than $1,000 dollars or is a sensitive or pilferable item, the accountable officer prepares a new count card and inventory control listing for the item using the same inventory document number and count card SN (but using the next sequence count number) and has the item recounted by an inventory team different from the team that made the original count. Recount the item until one of the following occurs:

(a) The recount quantity agrees with the recorded quantity.

(b) The recount quantity agrees with the original count.

(c) Two counts agree.

(d) The overage or shortage value is $1,000 or less and the item is not sensitive or pilferable.

k. Discrepancies.

(1) *Security or law enforcement reporting.*

(a) Report all discrepancies meeting the requirements of AR 190–11.

(b) Report any loss suspected of being by theft through security or law enforcement channels immediately.

(c) Report recovery of any munition or explosive item meeting the requirements of paragraph 13–23j(4) through security or law enforcement channels.

(2) *Inventory adjustment reporting.* All adjustments will be recorded on DA Form 444 (Inventory Adjustment Report (IAR)). Make adjustments as administrative adjustments and inventory adjustments. Administrative adjustments are adjustments that involve no net gain or loss and can essentially be attributed to clerical or operational error (errors in CC, lot number, warehouse location, or SN). Inventory adjustments are adjustments necessary due to actual gain or loss of stocks based on DoDIC quantity by SP. The dollar value for the account will be calculated on the first day of the FY. This dollar value will be used throughout the year on all IARs.

(a) Prepare DA Form 444 (Inventory Adjustment Report (IAR)) for an AAR. Show the complete DoDIC or NSN of the item and the lot number in the Stock Number column. Show the loss first, then immediately below it, show the gain. If the loss and gain are due to a warehouse change (for example, wrong magazine), write “WHS” for each item on the right side of the stock number column opposite the lot number. The AARs are not reflected against the dollar values for the year. Use the document number from the inventory to post the AAR to the stock records.

(b) Prepare DA Form 444 (Inventory Adjustment Report (IAR)) per DA Pam 710–2–2 for an IAR. Show the complete DoDIC or NSN of the item and the lot number in the Stock Number column.

(c) Process IARs for review and approval based on the total dollar value of adjustments prescribed in AR 710–2.

(d) The approval authority for the IAR will either approve the IAR, return it to the ASP for more research, and recommend and appoint a survey officer per AR 735–5; or recommend and appoint an investigation per AR 15–6. If more research is indicated, the ASP has an additional 15 days to conduct the research.

l. Inventory results. Post inventory results to the lot locator records, DoDIC master records, magazine data card, and SN records, if required, after the preparation of the AAR or IAR.

m. Filing inventory documentation. File all DA Forms 7890–SG (Inventory Control List) and DA Forms 7891–SG (Inventory Count Sheet). Maintain a copy of the IAR in a suspense file until the approved copy is returned. File the accepted IAR with the AAR in the inventory adjustment file.

n. Causative research. The SRO must conduct causative research for inventory discrepancies involving sensitive items and for adjustments over $500 in extended line item value when the SRO suspect’s

negligence was the cause and when directed by the approving authority. Causative research is an internal investigation done by the SRO to find what caused a specific inventory adjustment (see app E for causative research inventory checklist for ammunition). Results of the research must document the reason for the adjustment or conclude that the cause could not be found.

(1) When negligence is determined to be the cause or for adjustments in which cause could not be found, the IAR will be supported by action taken under AR 15–6 or AR 735–5.

(2) When an IAR is returned by the approving authority for further research, complete the research within 15 days unless the approving authority grants an extension. The approving authority may grant extensions of up to 30 days.

o. Wholesale inventory procedures.

(1) The inventory lead initiates the inventory process based on a predetermined schedule and set of criteria. A 100-percent inventory is performed for CAT I items on a semiannual basis. All other munitions and general supply items are counted on an annual basis. Munitions in sealed buildings (buildings where there was no movement since date of last physical inventory) are inventoried at 5 percent on an annual basis. Inventory plans and sealed site listings are submitted to the JMC APO for approval at the beginning of the FY.

(2) The installation personnel will inventory buildings based on the plan from the installation inventory lead. Installation personnel download the planographs for each building from LMP onto a stand-alone laptop. The planograph contains a diagram of the building with grid coordinates that will correlate with the location of munitions listed in LMP.

(3) Installation personnel may use a hand-held scanner to scan each 2D barcode on the munitions and validate the accuracy of the scan by physically counting the munition or verifying the physical asset markings and comparing the count to the individual magazine data cards. In the event that hardcopy count sheets are required, every sheet will have two signatures and dates (counter and recorder) and record the physical counts and the date will align with the month the inventory was conducted and inventory frequency will be met (CAT I semiannually; general supply and all other munitions annually).

(4) Installation personnel dock the hand-held scanner with the stand-alone laptop on-site at the building. On the stand-alone laptop, the Stockpile Inventory List Comparator text file is reconciled with the LMP asset listing (planograph). This reconciliation tool compares national item identification number (NIIN), vendor lot number, quantity, grid location, and SN, if applicable, between the downloaded scan results and the LMP asset record for each building. If the Stockpile Inventory List Comparator file reconciles successfully, proceed to step 5.

(a) Installation personnel conduct causative research for any outstanding discrepancies. Depots have 2 workdays to conduct causative research and 1 workday to push through the Difference Analyzer in LMP. Causative research includes verifying if the munitions have outstanding shipments, receipts, and transfer transactions that require posting in LMP. For all gains and losses, a transaction history against the particular NIIN is collected and attached to the causative research packet.

(b) The installation inventory lead receives the causative research packet and posts the gain or loss in LMP as a temporary gain or loss.

(c) The JMC APO and the JMC inventory leads review all gains and losses and determines if a formal investigation is required based on whether or not the gain or loss exceeds the threshold in accordance with Army policy. A memorandum of record is sent to the installation beginning the investigation process. If no formal investigation is required, proceed to step 5.

(d) The installation inventory lead prepares the required investigation forms, DA Form 444 (Inventory Adjustment Report (IAR)) or DD Form 200 (Financial Liability Investigation of Property Loss); signs and dates the form as the SRO; and attaches the causative research with a transaction history of associated NIINs. The inventory lead has 30 days to complete the causative research and sign and date the form, but may request two 30 day extensions from the JMC APO. The inventory lead provides the completed investigation documentation to the senior commander for review.

(e) The senior commander reviews, signs, and dates DA Form 444 (Inventory Adjustment Report (IAR)) or DD Form 200 (Financial Liability Investigation of Property Loss) as the SSA commander. The approved documentation is submitted to the JMC APO.

(f) The JMC APO may request additional information from the installation if research is inconclusive or unclear. The JMC APO and Director, Munitions Logistics Directorate review, sign, and date the investigation documentation. Signed copies are retained by the JMC APO, the senior commander, and the inventory lead. These forms are retained on file for 6 years and 3 months.

(5) The installation inventory lead reviews the scan files submitted for each building and posts the inventory out in LMP. The result will be a date of last inventory and time stamp against each building and grid.

(6) The installation inventory lead creates an inventory completion memorandum once all buildings have been properly and successfully inventoried for each CAT I semiannual inventory and each annual inventory and provides the memo to the senior commander.

(7) The senior commander signs and dates the inventory completion memorandum and forwards it to JMC Munitions Logistics Directorate and JMC APO. The installation and JMC inventory office file and retain the inventory completion memorandum for 6 years and 3 months.

13–24. Posting corrections to stock records

a. Manual. When making a correction before subsequent postings occur, draw a single line through the incorrect entry and make the correct entry on the line immediately following. When there are postings between the incorrect posting and the next available line, make a correction entry but do not draw a line through the incorrect entry or make erasures or alterations to quantities posted on ammunition stock records. The following instructions apply to corrections and changes to the stock records.

(1) *Corrections that do not change balances on hand.* When a gain or loss posting was made in the wrong column but the balance on hand is correct, draw a line through the incorrect part of the entry and make the correction in the proper column.

(2) *Corrections that change balances on hand.* When a correction requires a change in the recorded balance, make a corrected entry on the next available line. Make the new entry for the amount of increase or decrease if needed to correct the quantities shown in the balance on hand and the CC and location columns. Enter the original document number and date the correction is made on the corrected entry line. Write “corr” in an available space on the correction line and in an available space on the line that has the error. Enter the applicable transaction code (posting error plus or posting error minus) in the appropriate transaction code gain or loss column. Post the amount of increase or decrease to the applicable gain or loss column.

(3) *Error in posting.* When an error is made while posting a document number or SN, draw a line through the incorrect entry and enter the correct one on the next available line.

(4) *Documents not posted.* When a document that has not been posted is found, make the required entries on the stock records at once unless an inventory was posted in the interim. A solid red line below the entry and the abbreviation INV printed in the DoDAAC column indicates an inventory posting. If an inventory was posted, limit the posting of the found documents to the date, document numbers, and organization. Carry the current balance forward and write “omitted” in the transaction code column. Attach a statement to the documents explaining the failure to post it earlier, the date posted, and the initials of the person posting. File this statement with other documents supporting the transaction.

(5) *Entry on the wrong lot locator, serial number, or Department of Defense identification code master record.* When an entry was made to the wrong stock record, adjust as follows:

(a) If the error is found while posting or before any other entries are made on the affected stock record, draw a single line through the incorrect entry and the remaining unused space on that line, then post the entry to the correct stock record.

(b) If subsequent postings were made on the lot locator and DoDIC master records, use a reversal posting to adjust the stock record. Write “rev” in an available space on the error line. Enter the document number from the error line on the next available line. In the gain or loss columns, as appropriate, enter the amount of increase or decrease required to correct the balance on hand. Attach a statement to the supporting documents explaining the reason for the reversal.

b. Automated. When posting errors occur because a DoDIC or lot was adjusted more or less than was originally intended due to recording errors or types of packaging, take the following actions:

(1) If the error is discovered before the customer leaves the ASP, make corrections to DA Form 3151 (Ammunition Stores Slip) and DA Form 581 (Request of Issue and Turn-In of Ammunition) and have the SRO (or designated representative) and unit representative initial the corrections. Ensure the corrections include at least the NSN, lot number, DoDIC, CC, warehouse location, and quantity actually issued.

(2) If the error is discovered after the customer has left the ASP, verify the amount actually issued by contacting the customer or conducting a special inventory. Post the quantity shown on the original transaction document to the stock records. When it is verified that the error occurred against a specific document, a posting error transaction can be posted. Once posted, print screen a copy of the posting error

transaction. Prepare a memorandum for record explaining the reason for the error. The original SSA voucher number must also be included. Post the posting error plus or posting error minus and record the SSA voucher number on the memorandum. File one copy of the memorandum with the original voucher and another copy of the print screen in the proper sequence in the completed voucher file.

(3) Regarding a catalog data change, post DoDIC, NSN, and unit of issue changes from DA Form 4508 (Ammunition Transfer Record) or other change document. Multiple corrections should be posted one right after the other. Place all SSA-generated voucher numbers generated by the APSR on the DA Form 4508 (Ammunition Transfer Record). Place a copy in the completed voucher file to support each SSA voucher number. Only one original document number, usually from surveillance, is required for the transaction.

Chapter 14
Demilitarization

14–1. Overview

a. This chapter prescribes duties and procedures for authorizing, accomplishing, and reporting demilitarization of energetic class V materiel, including conventional ammunition, components, bulk propellants, bulk explosives, large rocket motors, and tactical guided missiles. This chapter does not provide guidance for the demilitarization of surety chemical, binary chemical, or nuclear weapon materiel or ammunition.

b. This chapter applies to all AMC MSCs, demilitarization activities, and other installations and activities that plan, program, or execute authorized functions related to the demilitarization of energetic class V materiel. This chapter applies to other Services and ACOMs when they interface with the JMC or the AMCOM demilitarization programs through the SMCA.

c. This chapter provides policy guidance to manage class V items residing in the Resource Recovery and Disposition Account/B5A (RRDA/B5A) and other materiel within the Joint Services requiring demilitarization. The RRDA/B5A is centrally managed with accountability residing with JMC and custodial records at the storing installation. The purpose of the RRDA/B5A is to provide oversight over demilitarization assets to the headquarters and to assure proper maintenance of accountable records.

d. DoDI 5160.68 outlines the policies and responsibilities of the SMCA, as well as all stakeholder organizations that apply to the demilitarization and disposal of conventional ammunition. This includes assignment of the SMCA to accomplish the required RDT&E, planning, programming, budgeting, and funding of the demilitarization of all items that are accepted into the RRDA/B5A.

Note. See the instruction for the SMCA, military Service, and U.S. Special Operations Command customers to jointly develop and distribute joint conventional ammunition policies and procedures through the JOCG at https://www.us.army.mil/suite/page/631349.

14–2. Delegation of demilitarization authority

a. Within the Army, the JPEO Armament and Ammunition has been delegated the role of the SMCA.

b. The Office of the Product Director for Demilitarization (PdD), under the PDJS, JPEO Armament and Ammunition, was established in December 2002 to provide a single focus and acquisition management of the DoD conventional ammunition demilitarization program. The AAE, acting as the SMCA, delegated authority to the PdD for demilitarization of all conventional ammunition, including tactical missiles and large rocket motors, including components of the conventional ammunition items, tactical missiles, and large rocket motors. The organizations are collocated at Picatinny Arsenal, NJ.

c. The demilitarization community is comprised of the operational stakeholders responsible for the demilitarization portion of acquisition life cycle management and the execution of conventional ammunition demilitarization. The demilitarization community is a multi-Service, multiorganizational, multifunctional, and diverse business enterprise committed to meeting our customer's expectations and requirements for demilitarization of the conventional ammunition stockpile.

d. The PdD, JMC, AMCOM, and the DEVCOM are principal parties to the demilitarization community's operations. Representatives from each of the military Services also participate as required. The PdD provides strategic-level management and guidance for the dispersed organizations that perform the mission. A formal memorandum of understanding defines the working relationships among the community's principal parties and the operational actions are defined by the demilitarization strategic plan.

14–3. Demilitarization execution

a. PdD, along with stakeholders, will produce a demilitarization business plan annually. The demilitarization enterprise will develop an annual business plan and submit it to the PdD for approval. The plans will cover the current year, budget year, plus the 5 years of POM period. These plans will be completed no later than 15 January of each FY for the President's budget preparation cycle. Installation workload forecasting and budgeting are also a responsibility of the demilitarization enterprise and are approved by the PdD annually.

b. The technology team leader and the PDJS Business Management Office develops an analysis that identifies a baseline plan consisting of current FY accomplishments and future plans (FY plus one and FY plus two). The base is developed through reviewing requirements and each organization in the enterprise is requested to provide input as necessary. The estimates will be reviewed, amended (as necessary) and concurred by the PdD.

c. JMC and AMCOM execute the demilitarization strategy as directed by JPEO Armaments and Ammunition.

(1) *Priority 1—explosive safety hazard.* Ammunition and Army tactical missile items that are an imminent explosive safety hazard will be demilitarized immediately or as soon as possible as authorized by the DoD Ammunition Rule Implementation Policy.

(2) *Priority 2—security concerns.* Ammunition and Army tactical missiles stored in the RRDA/B5A that contain security issues are to be demilitarized after all ammunition items with explosive safety hazard concerns have been processed and eliminated. Small quantities requiring less than 300 labor hours per undertaking are authorized under the installation's current miscellaneous service order.

(3) *Priority 3—routine items.* Ammunition and Army tactical missile items stored in RRDA/B5A that do not meet the requirements for priority 1 or 2 and have an approved technology for disposition are classified as routine items. The routine items are entered into the demilitarization optimizer to build an optimized demilitarization schedule based upon projected funding and current Army policies. Installations will submit cost estimates and proposals for demilitarization of conventional ammunition to JMC (AMJM–CPL) and cost estimates and proposals for demilitarization of Army tactical missiles to AMCOM (AMSAM–MMM), for tactical missiles. JMC and AMCOM will review the proposals to ensure they are valid and executable.

(4) *Priority 4—ammunition and Army tactical missile items requiring new technology regarding demilitarization technology program baseline agreements.* Contract between program executor of research and development and the PdD with concurrence for support from the applicable delegations of authority. The demilitarization technology program baseline agreement provides the scope and objectives of the technology program and defines acceptable threshold and objective parameters for cost, schedule, and performance over the life of the project (through transition to the production and deployment phase).

d. The annual Demilitarization Technology Program scoring meeting addresses project proposals submitted in response to strategic goals, capability gaps, and specific requirements. The scoring team consists of core members from the demilitarization executive team. The project proposals are reviewed individually and evaluated collectively. The merits and shortcomings are discussed in an open forum amongst the scoring team, and proposals are individually scored against predetermined criteria. The scored projects are developed into a 1–N list. This prioritized list is presented to the core members of the demilitarization executive team and approved by the PdD.

14–4. Resource, recovery, and recycling program

a. Section 353 of the 2007 John Warner National Defense Authorization Act (Public Law 109–364) authorized the Secretary of the Army to carry out a program to sell recyclable ammunition materials from the demilitarization of conventional military ammunition without regard to 40 USC Chapter 5 and to use the proceeds for reclamation, recycling, and reuse (R3) of conventional military ammunition, including research and development activities and equipment purchased for such purposes.

b. Delegation authority flows down to the PdD and utilizes scrap sales from six GOGO depots. R3 program proceeds are split 60 percent to the PdD and 40 percent to the individual depot. They can be used for additional demilitarization, minor facility and depot infrastructure upgrades, and R3 process improvements.

Chapter 15
Other Customer Support

15–1. Support to other services

a. The Army provides ammunition management support to other Services and programs in both a common-Service and cross-Service manner. For conventional ammunition, the Army, as the SMCA, executes the mission as outlined in DoDD 5160.65 and performs the DoD conventional ammunition mission functions as defined in DoDI 5160.68.

b. The specific mission functions of the SMCA span all service components. It includes, but is not limited to RDT&E, production base, acquisition, maintenance, demilitarization and disposal, quality assurance, technical data and configuration management implementing regulations and assessment, and security assistance. The SMCA continually assesses performance, customer expectations, and lessons learned to keep pace with the changing business environment and advances in technology.

15–2. Support to other Government agencies

When other Government agencies request ammunition from or through the SMCA, a formal price and availability (P&A) request is required to initiate the process.

a. The customer enters the P&A request into the Planning, Budget, and Execution System directly. Do not use P&As for Army and other U.S. Service base or OCO funding that is included in current year funding or future budget requests.

b. For that P&A request, routed throughout, JMC will state—

(1) From where the ammunition will be sourced (either from Army stock or new procurement).

(2) How much the requested quantity will cost.

(3) When funds are required to meet customer's RDDs.

(4) Production schedules (if a new procurement).

(5) Final instructions on the funding procedures.

c. If the agency wishes to proceed with procuring the ammunition, it will send JMC a funded MIPR through the Planning, Budget, and Execution System. The MIPR will undergo a similar process as the P&A request to accept the MIPR and return it to the customer.

d. The MIPR must contain—

(1) Requested quantity.

(2) Requisition number.

(3) Shipping instructions.

(4) Funded line of account complete with billing information.

e. Enter P&A and MIPR requests from customers with a .mil email address directly into the system for automated routing. A customer without a .mil address cannot directly access the system, so JMC will enter the P&A and MIPR into the system on their behalf to route as described.

15–3. Security assistance programs

a. Security assistance programs of ammunition may support weapons system sales or foreign training support, or they may be stand-alone ammunition sales. Security assistance programs and FMS provide a source for other nations to acquire equipment and ammunition for their national defense.

b. These programs provide the basis for international mutual support and can be an effective element of U.S. foreign policy implementation. AR 12–1 details guidance on ammunition security assistance including eligibility, required notifications, authorities, direct commercial sales, operational T&E, denial of requests, and policy exceptions.

c. Extensive planning is required to execute ammunition security assistance program cases. Planning considerations must include case development, review, analysis and approval, availability and sourcing, distribution, security, transportation, and safety.

15–4. Acquisition and cross-service agreements

a. An ACSA is an international agreement entered into under the authority of 10 USC 2341 or 10 USC 2342 that authorizes the acquisition and reciprocal provision of LSSS. An ACSA is also called a mutual

logistics support agreement. It allows the interchange of LSSS between U.S. Armed Forces and the military forces of certain nations or international organizations as outlined in CJCSI 2300.01D and DoD 7000.14–R.

b. There are two distinct ACSA authorities: acquisition-only and cross-servicing.

(1) *Acquisition-only authority.* In situations where no cross-servicing agreements exist, an acquisition-only authority may be established either through a contract using the authority of the Federal Acquisition Regulation or through an international agreement that relies on the authority of 10 USC 2341.

(2) *Cross-servicing authority.* 10 USC 2342 authorizes establishing cross-servicing agreements under which the U.S. may transfer LSSS to the military services of a foreign country on a reciprocal or reimbursable basis.

c. Except as authorized under Public Law, some prohibited LSSS ammunition items include, but are not limited to—

(1) Weapon systems.
(2) Guided missiles.
(3) Naval mines.
(4) Torpedoes.
(5) Guidance kits for bombs or other ammunition.
(6) Nuclear ammunition and associated items.
(7) Chemical ammunition.

d. COCOMs and ASCCs will—

(1) Ensure an agreement exists between the countries.

(2) Ensure the ACSA or mutual logistics order request is utilized and processed through the Automated Tracking and Reporting System.

(3) Ensure the requested ammunition are neither prohibited nor affect readiness.

(4) Ensure the receiving officials from coalition forces sign and date the form.

(5) Ensure the accuracy, completeness of the manual request, and guarantee that all four signatures are annotated on the request.

(6) Maintain complete and accurate records of ammunition issued to coalition forces and notify DCS, G–4 of such issues.

(7) Establish procedures to ensure issues of ammunition using ACSA authorities are entered into the Global Automated Tracking and Reporting System for invoicing and payment requirements.

(8) Establish procedures to ensure issues of ammunition using ACSA authorities are submitted to Defense Finance and Accounting Service—Rome for reimbursement.

(9) Establish procedures to ensure issues of ammunition using lift and sustain authorities are submitted to DoD for reimbursement.

15–5. Foreign military sales

a. AR 12–1 establishes responsibilities and policies among Army organizations conducting the security assistance and cooperation mission under FMS. The Defense Security Cooperation Agency Manual 5105.38–M establishes procedures for the DoD to conduct its security assistance and cooperation mission. The eligibility of a country or international organization to purchase defense articles and services is published by the Defense Security Cooperation Agency, https://samm.dsca.mil/.

b. The U.S. and DoD must protect and control items the DoD identifies as sensitive AA&E sold to a foreign nation under the FMS program until possession is transferred to the recipient country at the SPOE or APOE.

c. The Defense Security Assistance Management System holds the actual case and its specific parameters. Once a sales order has been issued from the case, it will enter LMP for logistics processing (sales and delivery orders).

d. Organizations are not authorized to give other nations ammunition without the proper coordination and approval from HQDA.

15–6. Cross stratification

The Army conducts an ammunition stratification process annually to the review aggregate requirements against worldwide assets postures using the TMR as the basis as directed by DoDM 4140.01. This ensures the Army has the right quantity and type of ammunition to execute training and testing to meet wartime requirements without buying unnecessary ammunition. To better inform this process, JMC will review

the demilitarized stockpile quarterly, so any serviceable suitable stocks are pulled out and used as required to maintain readiness.

Appendix A

References

Section I

Required Publications

AR 700–13
Worldwide Department of Defense Military Munitions (Ammunition) Logistics/Surveillance/Explosives Safety Review and Technical Assistance Program (Cited in *para B–1a*.)

AR 700–20
Ammunition Peculiar Equipment (Cited in para 7–14c(4).)

Public Law 105–261
Strom Thurmond National Defense Authorization Act for Fiscal Year 1999 (Cited in para 6–8.)

Section II

Prescribed Forms

Unless otherwise indicated, DA forms are available on the Army Publishing Directorate website: https://armypubs.army.mil/.

DA Form 581
Request for Issue and Turn-In of Ammunition (Prescribed in *para 12–2d.*)

DA Form 581–SG
Request for Issue and Turn-In of Ammunition (Prescribed in *para 12–2d.*)

DA Form 581–1
Request for Issue and Turn-In of Ammunition Continuation Sheet (Prescribed in para 12–7a(3).)

DA Form 3020
Magazine Data Card (Prescribed in para 12–7a(4).)

DA Form 3120
Missile Firing Data Report (PATRIOT) (Prescribed in para D–3.)

DA Form 3151
Ammunition Stores Slip (Prescribed in para 12–7a(5).)

DA Form 3474
Missile Firing Data Report (Javelin) (Prescribed in para D–1.)

DA Form 3662
Missile Firing Data Report (Longbow) (Prescribed in para D–8.)

DA Form 4508
Ammunition Transfer Record (Prescribed in para 13–4b(2).)

DA Form 5515
Training Ammunition Control Document (Prescribed in *para 12–6a.*)

DA Form 5515–1
Training Ammunition Control Document Continuation Sheet (Prescribed in *para 12–6a.*)

DA Form 5582
Missile Firing Data Report (ATACMS) (Prescribed in para D–6.)

DA Form 5583
Missile Firing Data Report (Hellfire) (Prescribed in para D–7.)

DA Form 5692
Ammunition Consumption Certificate (Prescribed in para 12–7a(9).)

DA Form 5811
Certificate - Lost or Damaged, Class 5 Ammunition Items (Prescribed in para 12–7a(8).)

DA Form 7212
Missile Firing Data Report (Stinger) (Prescribed in para D–4.)

DA Form 7213
Missile Firing Data Report (TOW) (Prescribed in para D–2.)

DA Form 7794
Missile Firing Data Report (Excalibur) (Prescribed in para D–9.)

DA Form 7795
Missile Firing & Data Report (MLRS/GMLRS) (Prescribed in para D–5.)

DA Form 7853
Missile Firing Data Report (Guided Rockets) (Prescribed in para D–10.)

DA Form 7890–SG
Inventory Control List (Prescribed in para 13–23e(3).)

DA Form 7891–SG
Inventory Count Sheet (Prescribed in para 13–23e(3).)

Appendix B

Ammunition Programs and Decision-Making Forums and Events

B–1. Worldwide Ammunition Logistics and Explosives Safety Review and Technical Assistance Program

a. The HQDA Worldwide Ammunition Logistics and Explosives Safety Review and Technical Assistance Program reviews and audits are conducted by the LRTAO of the Army DAC under the provisions of AR 700–13 and are evaluated against a recognized standard.

b. The program evolved in recent years from simply documenting findings to conducting evaluations against a recognized standard and providing recommendations, including finding resolve and teaching and enhancing knowledge base. HQDA ammunition logistics and explosives safety reviews should not be punitive in nature; instead, they should provide commanders technical expertise to reduce problem areas and provide solutions. Do not identify reviews as something dreadful, but as a mechanism to encourage improvement and problem solving.

c. A comprehensive guide is available from LRTAO to aid performing self-assessment of ammunition logistics, ammunition surveillance, and explosives safety functions. The document, which is routinely updated, is not intended to supersede, contravene, replace, or modify the publications referenced herein or any other DoD, DA, ACOM, ASCC, or DRU criteria. Those publications take precedence in the event of any conflict with the guide.

B–2. Strategic portfolio analysis review

a. The objective of the SPAR is to conduct a 30-year portfolio assessment, including POM years. The analysis objectives include answering Army senior leader interest in modernization efforts beyond POM years, developing a strong link between S&T efforts and program development, identifying decision points for new starts and transitions to sustainment, examining total life cycle costs, developing the Army position on key resourcing and acquisition decision-making venues, and providing guidance to TRADOC on requirement documents needed.

b. The SPAR is a phased effort that begins with an unconstrained identification of requirements that fulfill capability gaps and continues with allocation of funding and identification of trade space. TRADOC capability gaps identified during SPAR inform investment requirements and funding strategies. Collaboration with equipping stakeholders is required throughout the process. Identify requirements that fully fund ACAT I and ACAT II programs to approved baselines. Identify programs that are eligible for transition to sustainment, propose a way ahead (what and when), and provide some rationale for eligible programs that do not transition.

B–3. Weapons system reviews

a. Annually, a cross-PEG review of program life cycle weapon system requirements and funding requests takes place. This review is the mechanism for PMs to submit their POM command requirements in detail to the PEGs. A successful WSR results in a complete understanding of a program's command-validated requirements; acquisition, sustainment, and divestment strategies; and resourcing profile over the Future Years Defense Program by all HQDA, Secretariat Staff, TRADOC, AMC, and PEG representatives.

b. There is no specific ammunition specific WSR with the exception of the Training Program PEG identifying ammunition requirements for testing or new equipment training as typically directed in POM instructions.

c. Unlike durable items (for example, class VII) where one would buy a fixed quantity of items, ammunition is expendable and requires annual replacement due to training, war, operations, and test usage. Pre-POM planning for the G–8 ammunition branch occurs annually in January or February. This G–8-led meeting is similar to a WSR, which is why the process is not repeated during the annual WSRs. This meeting convenes members of DCS, G–8; ASA (ALT); JPEO Armament and Ammunition; DCS, G–4; DCS, G–3; and all of the ammunition commodity managers at JMC. The status of each ammunition DoDIC's inventory, usage, washout, IB concerns, requirement, and so forth is analyzed to determine what DCS, G–8 will propose in the next POM, given a certain table of allowance. In a sense, the DCS, G–8 conducts a WSR-like process of the ACAT III ammunition items during this pre-POM review.

B–4. Annual ammunition program reviews

a. At HQDA level, two annual reviews of the ammunition portfolio are conducted. These reviews include representatives from ASA (ALT), Army Budget Office, HQDA, JPEO Armament and Ammunition, PMs, AMC, JMC inventory managers, and others.

b. The November review focuses on the current year of execution and the next budget year. Issues discussed include evolving or unresolved issues and new issues, current production problems (that is, backlog of undelivered), appropriation bill or continuing resolution issues or impacts, specific issues (such as every other year procurements), and current OCO requests. Emphasis is placed on potential funding changes or reprogramming.

c. The January review focuses on the POM years. Individual item-level reviews are conducted with analysis of inventory levels, serviceability, buys, expenditures, age, and IB issues and impacts. A detailed line-by-line perspective is developed of evolving or emerging issues which affect POM resourcing. OCO request possibilities are also evaluated. This review emphasizes future funding requests (for example, POM).

B–5. Joint Program Executive Office Armament and Ammunition portfolio reviews

a. Ensure a common understanding and full visibility of requirements driving fiscal investment across research and development, procurement, and sustainment.

b. It consists of three sessions—

(1) *First session.* PM or program director, TRADOC, contracting centers, DEVCOM, JMC, and other Services prioritize efforts and identify opportunities to modify or terminate requirements where capability redundancy exists and to reduce or stop production or delay development.

(2) *Second session.* Includes representatives from offices of the DCS, G–3; DCS, G–4; and DCS, G–8 who use recommendations from HQDA to feed the ammunition management processes, control redundancy, and support the POM build.

(3) *Third session.* The general officer or executive-level review assesses or agrees regarding capability roadmaps and warfighter modernization S&T efforts, as well as should-cost, requirements, capability redundancy, and opportunities to reduce production quantities.

Appendix C

Determining War Reserve and Training Ratings (S-Rating)

C–1. Purpose

The MRR provides senior Army leadership with a tool to gauge ammunition readiness. The following procedures are used to calculate ammunition ratings in support of the MRR.

C–2. Assets

Assets are worldwide, less WRSA, and include serviceable assets (CCs A, B, C, E, and N (emergency use only)). Assets are also included for certain items as directed by the DCS, G–4 ammunition director. Stocks with a restriction code of B01 or otherwise designated or restricted for training use only (TUO) are not included in the serviceable assets totals. TUO assets are recorded in the Training Restricted column.

C–3. Requirements

a. Requirements are WR, annual training, and test.

b. For a training-unique item or a training standard or dual-use item, the training pipeline provides inventory in motion to support training continuity. It is currently defined as 150 days or 41 percent of annual training.

c. A test requirement is also in place for many items. This is looked at after the WR and training requirements. It is rated on an all-or-none basis.

C–4. Calculation of S-rating for individual items

a. War reserve items. Only the serviceable assets (less TUO assets) are measured against the WR requirement. The S-rating for individual items or DoDICs are as follows:

(1) S1—Serviceable assets meet or exceed 90 percent of the WR requirement.
(2) S2—Serviceable assets meet 75–89 percent of the WR requirement.
(3) S3—Serviceable assets meet 51–74 percent of the WR requirements.
(4) S4—Serviceable assets do not meet 50 percent of the WR requirements.

b. Training-unique items. The balance of the serviceable assets (after subtraction of the WR requirement) plus the TUO assets are compared to the training requirement.

(1) S1—Serviceable assets meet or exceed 90 percent of the training requirement.
(2) S2—Serviceable assets meet 75–89 percent of the training requirement.
(3) S3—Serviceable assets meet 51–74 percent of the training requirements.
(4) S4—Serviceable assets do not meet 50 percent of the training requirements.

c. Assets pertaining to the S-rating. The assets available in a depot are also taken into account for the training S-rating. If the total serviceable assets (including training-restricted assets) in depot are less than 90 days (25 percent) of the annual CONUS training requirement, then the rating is dropped one level. For example, an item may have more than 150 days of the training requirement available in worldwide serviceable assets and TUO stock and would, therefore, be rated an S1. However, there are only enough serviceable and TUO assets in depot to cover 50 days of the CONUS training requirement. The rating for that item would then become S2.

d. Training-unique items as war reserve requirement. Some training-unique items may also have a WR requirement. This WR requirement is established to cover mobilization training requirements conducted in preparation for deployment or during deployment. The serviceable assets are used to establish the rating for this requirement. The ratings for this WR requirement are established in the same manner as the dual-use items described in *para C–4e*.

e. Dual-use or training standard items. Two requirements must be covered for these items as they generally have both a WR and annual training requirement. These items therefore receive an S-rating for both of these requirements. The worse of the two ratings is used as the overall S-rating for each DoDIC. The initial WR requirement is calculated based on serviceable assets excluding any TUO assets. The remaining serviceable assets plus TUO assets are used to calculate the training rating.

f. About ratings. Because of the breakout of the TUO assets from the serviceable assets balance, a dual-use item may have a training rating that is better that its WR rating.

C–5. Summary of the current ratings methodology

a. Apply worldwide serviceable assets (CCs A, B, C, E, and N) to the WR requirement. TUO stocks are excluded.

b. Apply TUO assets plus the remainder of the worldwide serviceable assets after calculation of the critical WR rating to the training requirement.

Note. The restriction code B01 and other TUO assets are only used for training requirements. These TUO assets are used first when calculating the training rating. The serviceable assets balance is added when necessary.

C–6. Calculation of S-ratings for item groups and families

a. Ratings will be determined by the count of S1, S2, S3, and S4 ratings in each group or family.

(1) S1—The number of S1 ratings is in the group is greater than or equal to 90 percent.

(2) S2—The number of S2 ratings is between 75 and 89 percent.

(3) S3—The number of S3 ratings is between 51 and 74 percent.

(4) S4—The number of S4 ratings is greater than 50 percent.

b. For those groups with individual S4 DoDICs, those DoDIC requirements will be divided by the total group requirement. If the individual S4 DoDIC requirement is more than 25 percent of the group total requirement, the group rating will be degraded one rating.

C–7. Serviceability and quality R-rating methodology

a. R-ratings recognize that not all serviceable assets are equal and, therefore, consider three factors: CCs, periodic inspections, and reliability. Anything with a CC less than A has the potential to reduce mission flexibility. R-ratings are lowered based on the percentage of stock in less than CC A. Stocks with overdue periodic inspections cannot be shipped. R-ratings are lowered by 10 percent, an estimate of unserviceability based on ASRP historical data, in instances where inspections are overdue. An item can be serviceable yet have poor reliability. Functional reliability is determined as a factor in ASRP testing. Using these three considerations, R-rating assessments are made for individual items with the following formulas:

(1) R1 = [(percent CC A) – (0.1) (percent uninspected)] x (reliability) ≥ 90 percent.

(2) R2 = [(percent CC A through D) – (0.1) (percent uninspected)] x (reliability) ≥ 65 percent.

(3) R3 = [(percent CC A through D) – (0.1) (percent uninspected)] x (reliability) < 65 percent.

b. Ratings are defined as follows:

(1) R1—No significant quality issue; indicates most of the stockpile is in CC A (full mission flexibility).

(2) R2—Quality issue; portion of the stockpile is unserviceable or restricted (could result in isolated to moderate reduction in mission flexibility).

(3) R3—Numerous quality issues; indicates much of the stockpile unserviceable (could result in significant reductions in mission flexibility).

C–8. Calculation of R-ratings for item groups

a. In some groups all DoDICs are rolled into subgroups. In other groups, there are no subgroups and DoDICs are treated separately. In others, there is a combination of subgroups and separate DoDICs. A weighted mean calculation is used to roll the DoDIC or subgroup ratings into an overall group rating. The weighted mean gives each DoDIC or subgroup a weight or importance and this determines how much its rating affects the overall group rating.

b. To find the weights, the assets are summed for all the DoDICs in a group. Each subgroup and separate DoDIC gets a weight based on its percentage of the total group. For separate DoDICs, weight equals DoDIC assets divided by total group assets. For subgroups, weight equals total subgroup assets divided by total group assets.

c. This percentage or weight is then multiplied by the DoDIC or subgroup rating. These values are summed and divided to get an average group rating. This average is then compared to the criteria in table C–1 for the criteria to determine the rating.

Table C–1
R-ratings criteria

R1	1.54 or less

Table C–1
R-ratings criteria—Continued

R2	1.55–2.44
R3	2.45–3.00

C–9. Calculation of R-ratings for family

a. Each group is part of a family. The family rating is based on the ratings of the groups it includes. Each family also gets a WR and training rating.

b. To find the WR rating for each family, find the average R-ratings for each group in the family. Then count the number of R1, R2, and R3 ratings for these groups as well. The family WR rating is based on the criteria in table C–2.

Table C–2
War reserve rating criteria

R	50% of group ratings	Average of group ratings
1	R1	1.54 or less
2	R2 or better	1.55 to 2.44
3	R3 or better	2.45 to 3.00

Appendix D

Missile Firing Data Reports

D–1. Procedures for completing DA Form 3474

a. Complete DA Form 3474 (Missile Firing Data Report (Javelin)) for each Javelin missile firing or attempt to fire for troop training, annual service practice, demonstration, and life cycle testing, including acceptance, product improvement, and surveillance.

b. The Javelin form is designed to provide most information by simply writing in or marking the appropriate block for the desired information.

c. Document any failure experienced during Javelin firings fully in sections 21 and 22 at the bottom of the form. It may be necessary to use the back of the form to fully explain the incident.

d. Instructions for completing DA Form 3474—

(1) *Missile information.* Enter the missile SN, lot number, DoDIC, and NSN in the blanks provided. Each blank should contain a number or letter when this section is complete.

(2) *Battery coolant unit.* Enter the BCU SN and lot number in the lines provided.

(3) *Firing agency.* Self-explanatory.

(4) *Command launch unit serial number.* Self-explanatory.

(5) *Software version.* Enter the software version currently installed in the command launch unit (CLU).

(6) *Unit mailing address.* Self-explanatory.

(7) *Location (post) where fired.* Self-explanatory.

(8) *Military time, month, day, and year.* Enter the time (military), month, day, and year that the missile was fired. Each block should be filled when this section is complete.

(9) *Gunner experience.* Enter the number of missiles that the gunner has fired previous to this firing or check the no gunner block if fired remotely.

(10) *Warhead type.* Check the live block for a heat round, the inert block for a practice round, or the time block for a round containing a telemetry section instead of a warhead. Only one block should be checked in this section.

(11) *Gunner position.* Check the box that best describes the gunner's position at the time of the firing. Only one block should be checked in this section.

(12) *Conditions at time of launch.* There are four columns in this section. Check the appropriate box under the headings obscurants, light conditions, and type of illumination (for night firings only). Under the column labeled other, fill in the blanks for wind in miles per hour (MPH) and temperature in degrees Fahrenheit.

(13) *Purpose of firing.* Check the appropriate block.

(14) *Acquisition mode.* Check the appropriate blocks that describes the modes of the CLU at the time of acquisition. More than one block may be checked in this section.

(15) *Command launch unit elapsed time meter readings.* Record the elapsed time meter readings prior to the firing and after the firing.

(16) *Target information.* There are four columns in this section. The target type column is self-explanatory. Target temperature is the condition of the target and may require more than one block to be checked. The temperature blank (at the bottom of the target temperature column) is the temperature of the target. Target aspect is the view of the target as presented the gunner with 0 and 360 and looking at the target from the front; 90 would be looking at the left side of the target from the driver's perspective; and 270 would be looking at the right side of the target from the driver's perspective. The other target is self-explanatory.

(17) *Firing results.* A miss means the missile did not hit the target that the gunner locked on. Misfire means that the gunner pulled the fire trigger and nothing happened. A hang fire means that the gunner pulled the trigger and the restraint pin was activated, but the missile did not leave the tube. An abort is self-explanatory. If the missile hit the locked-on target, check the hit block and complete the information under that block.

(18) *Warhead function.* Self-explanatory.

(19) *Command launch unit checkout.* This section refers to the self-test results at preflight and postflight times of the CLU.

(20) *Command launch unit and missile built-in test indicator.* List any built-in test (BIT) icons that illuminated during the test.

(21) *For misses and failures only.* As stated, this section is only for misses and failures. As much information as possible should be checked. Additionally, a description of the incident should be given in section 22.

(22) *Explanation.* This section is for misses or erratic flights. Describe the incident in as much detail as possible with the data immediately available.

(23) *Date.* This is the date that the firing report was completed.

(24) *Gunner's name.* Enter the gunner's name.

(25) *Officer in charge.* Self-explanatory.

(26) *Phone.* Self-explanatory.

D–2. Procedures for completing DA Form 7213

a. DA Form 7213 (Missile Firing Data Report (TOW)) is designed so that most blocks need only be checked in the appropriate category or blanks filled in with the required data. All numbers should have the last digit in the extreme right position and should be rounded off to the nearest whole number. This form and all requested data are unclassified.

b. Instructions for completing DA Form 7213 (Missile Firing Data Report (TOW))—

(1) *Mail to.* Mail completed report to this address.

(2) *Unit mailing address.* Enter the complete address of the firing unit. For tactical units, this should be the company. For other organizations, it should be the office conducting the test.

(3) *Missile information.*

(a) Missile serial number. Enter the missile SN as shown on the missile container marking.

(b) Missile lot number. Enter the missile lot number as shown on the missile container marking.

(c) National stock number. Enter the NSN as shown on the missile container marking.

(4) *Warhead type.* Mark the type of warhead. If the type of warhead is not listed, write in the appropriate type.

(5) *Mount.* Mark the appropriate mount. If the type of mount is not listed, write in the appropriate nomenclature.

(6) *Firing agency.* Mark the appropriate block. If the agency conducting the firing is not listed, write in the agency name.

(7) *Location (post) where fired.* Enter the name of the installation or location where the firing was conducted.

(8) *Purpose of firing.* Mark the purpose of the firing or enter the name of the test program.

(9) *Time of missile firing.* Use local military time and use numbers for the date. For example, July 4, 2017, should be entered as 07 04 17.

(10) *Light conditions.* Mark the appropriate block for light conditions.

(11) *Temperature.* Mark the appropriate block and enter the temperature at the time of launch.

(12) *Weather.* Mark the appropriate block.

(13) *Gunner experience.* If a gunner has previously fired missiles, enter the number of missiles fired, excluding missiles reported as fired on this firing data report. If this is the first firing, mark no previous missiles. If there was no gunner (firing from fixed launcher), mark no gunner.

(14) *Target type.* Mark the appropriate type of target. If the target is approximately the size of the standard target, then mark standard stationary target or standard moving target. For example, a target that is 8 feet by 8 feet can be marked as a standard stationary target.

(15) *Target direction.* If the target is not moving, mark stationary. If the target is moving, mark the direction of the movement.

(16) *Target speed.* If the target is moving, enter the approximate speed in MPH.

(17) *Range of target.* Enter the distance from the launcher to the target in meters.

(18) *Target hit.* Mark yes or no. Ricochet hits should be marked no.

(19) *Impact point from center of target (inches).* If the missile hit the target, note the distance from the target center. However, if range conditions prevent determining this information, mark not determined.

(20) *Warhead functioned.* Mark the appropriate block.

(21) *Range to impact point (miss only).* If a miss or failure occurs, enter the estimated distance in meters from launcher to the point where the missile first hit the ground.

(22) *Cause of miss.* Mark the block that most nearly describes why this missile did not hit the target. If other is marked, specify the cause.

(23) *Sequence of events.* Answers to the questions concerning events that should have occurred during the firing will assist personnel in analyzing failures. If possible, mark whether they did or did not occur. If it could not be observed whether these events occurred or not, mark unknown.

(24) *Remarks.* Any comments that would assist personnel in determining why a missile did not hit the target should be entered. Make the description as complete as possible, including observations concerning equipment discrepancies noted after the flight.

(25) *Date.* Enter the date of the report.

(26) *Gunner's name (type or print).* Enter the gunner's name.

(27) *Officer in charge (type or print).* Enter the name of the individual submitting the report.

(28) *Defense switched network or commercial phone number.* Enter the defense switched network (DSN) number or commercial telephone number.

D–3. Procedures for completing DA Form 3120

a. DA Form 3120 (Missile Firing Data Report (PATRIOT)) is designed so that most questions can be answered with one word, a number, or a checkmark in a box. A sketch or diagram should accompany the report to explain incidents that cannot be easily described or identified. If an item cannot be positively determined, it should be explained in item 34. When information is unknown or not available, enter unknown in the appropriate block.

b. Note linear and velocity measurements in meters, kilometers, and meters per second.

c. The completed form, when filled in, will be classified as confidential.

d. Instructions for completing DA Form 3120 (Missile Firing Data Report (PATRIOT))—

(1) Mail completed report to this address.

(2) Enter complete address for unit conducting the missile firing.

(3) Enter the appropriate unit designation.

(4) Identify missile fired by type.

(5) Enter missile SN and system or mission number.

(6) Check the appropriate box.

(7) Enter time and date of missile firing.

(8) Make appropriate entry.

(a) Enter the order of firing in the round and salvo blocks (for example, first round—enter 1 in round, second salvo—enter 2 in salvo).

(b) Enter the section that did the firing in the block.

(c) Check this block for one missile fired at one moving target in an engagement. If this block is checked, round and salvo blocks will be left empty.

(d) Check block if firing was deliberate. Leave block empty if autonomous.

(9) Self-explanatory.

(10) If the scoring and analysis unit cannot determine that the missile was successful or unsuccessful, nor can an evaluation of telemetry data or observation of target interception or destruction be determined, write unknown and explain in item 34.

(11) Only R, the radial miss distance, applies. Enter the value obtained from telemetry or other source in meters. If the miss distance is not known, enter unknown.

(12) Self-explanatory.

(13) Self-explanatory.

(14) Self-explanatory.

(15) Enter the time of flight from launch to burst to the nearest tenth of a second.

(16) Enter the type of warhead or specify if other than live warhead.

(17) Check the type of burst. Types of burst are defined as follows:

(a) Normal bursts result from a signal reflected from the target.

(b) Self-destruct bursts are produced by built-in feature.

(c) Command destruct bursts are caused by manual command.

(d) Ground impact bursts are caused by impact with the ground.

(e) Special bursts or simulated bursts are produced for research and development purposes.

(f) Premature-destruct bursts occur before missile comes within range of the target.

(g) No burst. Explain failure in item 34.

(18) Give both intercept speed and maximum speed for PATRIOT in meters per second.

(19) Record target altitude above the battery at intercept in kilometers.

(20) Record range at intercept in kilometers.
(21) Record the type of target—
(a) Description. Propeller, turbojet, ramjet, missile or helicopter, towed dome, or simulated target (indicate simulator used, surface, or space point).
(b) Type. Actual (A), offset (O), simulator (S).
(c) Nomenclature. Record if applicable.
(d) Augmentation. Note when used.
(e) Size. Record target size in square meters when simulator is used.
(22) Check the type of course the target was flying at intercept. If applicable, write in whether the target was ascending, descending, or pop-up.
(23) Self-explanatory.
(24) Give target data in kilometers.
(25) Give target data in kilometers.
(26) Give target data in meters per second.
(27) If the missile does not reach the intercept point, is lost, or if the flight termination is not observable, enter the last known missile data in appropriate units.
(28) Record the reason for firing (for example, short notice annual practice, unit activation, or training).
(29) Enter the type of telemetry system used, if applicable.
(30) Enter missile rocket SN, lot number, and date loaded.
(31) Enter the temperature at the time of firing and describe the weather conditions, such as clear, light or heavy rain, snow, sleet, fog, or wind.
(32) Enter classification authority.
(33) Enter declassification date.
(34) Any items requiring further comment should be explained here. Number the comment to correspond to the applicable item. Any unusual performance should be reported. Reasons for an unsuccessful firing should be given, as well as reasons for aborting a missile after firing.
(35) Appropriate remarks as required, based on information provided in item 34.
(36) Self-explanatory.
(37) Self-explanatory.

D–4. Procedures for completing DA Form 7212

a. DA Form 7212 (Missile Firing Data Report (Stinger)) is designed so that most questions may be answered with one word, a number, or a checked box.
b. Fully document any failure experienced during stinger firings in the remarks section at the bottom of the form.
c. The completed form and all requested data are unclassified.
d. Instructions for completing DA Form 7212 (Missile Firing Data Report (Stinger)):—
(1) Enter the name of individual completing the form.
(2) Enter the organization firing the missile.
(3) Enter the gunner's name.
(4) Enter date of missile firing attempt.
(5) Enter time of firing attempt.
(6) Enter missile SN.
(7) Enter lot number of the missile.
(8) Enter the SN of the gripstock.
(9) Enter the SN and lot number of the BCU.
(10) Enter a check in the appropriate block for the location of the missile firing attempt. If the missile firing was attempted at a site other than those listed, enter the site name on the other line.
(11) Check the appropriate block for the type of target.
(12) Check the appropriate block for the type of launch platform.
(13) Check the appropriate block indicating if the gripstock functioned.
(14) Check the appropriate block for the firing analysis.
(15) Check the appropriate block describing the analysis of the warhead function.
(16) Check the block that appropriately describes the weather conditions at the time the firing was attempted.

(17) Enter remarks in the case of gripstock or BCU malfunction or if the missile flight was unusual or a target miss occurred.

(18) Enter the name of the officer in charge and the phone number of the individual completing the form, including DSN prefix and commercial number.

(19) The officer in charge will sign and date in this section.

D–5. Procedures for completing DA Form 7795

a. The completed DA Form 7795 (Missile Firing & Data Report (MLRS/GMLRS)) is unclassified.

b. For each rocket pod (RP) and firing mission, complete one report. Data is required for each rocket firing attempt, whether the attempt results in an actual firing or not. It is significantly important to complete section accurately since data collected determines a successful firing attempt or establishes possible cause of failure.

c. Instructions for completing DA Form 7795—

(1) Enter identification and contact information of unit attempting to fire. Provide as much as possible.

(2) Enter the date when the rocket firing or attempt took place (month/day/year).

(3) Enter the time (military) when the rocket firing or attempt took place.

(4) Check block that best describes agency attempting to fire. If other, explain.

(5) Check block and provide information that best describes unit attempting to fire.

(6) Check block that best describes reason firing or attempt was made. If other, explain.

(7) Check block that best describes the mode of firing. If ripple, enter interval which these were preset.

(8) Enter the location and launch elevation at which the rocket firing or attempt was made (general unclassified information only).

(9) Enter the ambient temperature at the firing location and any block that best describes the weather conditions when the rocket firing or attempt was made.

(10) Check block that best describes wind velocity when the rocket firing or attempt was made.

(11) Check block of launch system used when rocket firing or attempt was made.

(12) Enter launcher SN.

(13) Check the correct block of rocket variant being fired.

(14) Enter RP SN and lot number.

Note. For each RP fired or attempted, a separate MFDR should be completed.

(15) Only mark position of rockets fired or attempted to fire. If a M270A1 launch system is used, check block that indicates where RP is loaded on launch system (left or right).

Note. For each RP fired or attempt, a separate MFDR should be completed.

(16) Check block that best describes target when rocket firing or attempt was made. If other, explain.

(17) Enter the distance (range) from launch location to target in meters.

(18) For basic or extended range, enter the fuze set time which is preset.

(19) Firing sequence: indicate the sequence in which missiles will be fired.

(20) Launcher failed: check Y if the launcher failed to fire, but check N if there is no indication of a launcher failure.

(21) Number of attempts: enter the number of attempts in firing the specified missile, no matter if an actual firing took place.

(22) Rocket fire: check Y if rocket fired and launched from system, but check N if triggered and nothing happened (misfire or hang fire).

(23) Passed prelaunch built-in test: check Y if rocket passed prelaunch BIT, but check N if failed.

(24) Normal flight: check Y if flight was considered normal with no anomalies, but check N if not.

(25) Warhead detonated/dispersed: check Y if warhead detonated or dispersed bomblets, but check N if not.

(26) Impact target: check Y if rocket impact target, but check N if it did not. If it did not impact target, describe missed target results.

(27) Missed target results: describe the missed target results by identifying if rocket failed to reach target distance (short), exceeded target distance (long), if offset was to the right or left of target, and an estimate distance from target.

(28) Space provided for recording significant details of each failed firing attempt, including launcher, rocket, or RP failures. Any comments that would assist personnel in determining why a rocket did not hit the target should be entered.

(29) Print name of the individual submitting the report, grade or name of evaluating team, and include DSN number or commercial telephone number.

(30) Review report for accuracy and sign.

D–6. Procedures for completing DA Form 5582

a. The completed DA Form 5582 (Missile Firing Data Report (ATACMS)) is unclassified.

b. For each firing mission, complete one report.

c. Instructions for completing DA Form 5582—

(1) This section is pre-filled.

(2) Enter the firing agency attempting the firing.

(3) Enter the mission date and time.

(4) Enter the name of the unit attempting the firing.

(5) Check the block that best indicates the firing category. If other, explain.

(6) Enter in the location at which the missile firing or attempt was made (general unclassified information only).

(7) Check the block that most appropriately describes the weather; enter the ambient temperature at the firing location and check the block to indicate if the temperature is recorded as Celsius or Fahrenheit.

(8) Enter the wind velocity in MPH.

(9) Enter the launcher SN; check the appropriate box to indicate launch platform.

(10) Check the appropriate missile type or variant.

(11) Enter the missile SN, lot number, and DoDIC.

(12) Check the appropriate type of target. If other, please list.

(13) Check the appropriate prelaunch BIT.

(14) Enter the BIT indicator codes.

(15) Enter the software version currently installed in the launcher platform.

(16) Check the appropriate launch status.

(17) Check the appropriate box that describes the impact of the missile. If the “missed target” block is checked, explain in block 26. For example, the missile over flies the target, impacting 5,000 meters from the launcher, and to the right of the target.

(18) Check the yes if the missile flight was normal; check no if the missile flight was unusual or a target miss occurred. If no, explain in block 26.

(19) Enter the time of flight from launch to impact to the nearest one-tenth second.

(20) Check the type of burst. Types of burst are defined as follows:

(a) Ground impact. Burst caused by impact with the ground.

(b) Aerial burst.

(c) None. Explain failure to burst in item 26.

(21) Check the appropriate target condition post-mission.

(22) Check the appropriate dispersion mode (Block I and Block IA only).

(23) Enter the missile’s altitude at time of height of burst in meters (Block I and Block IA only).

(24) Enter the distance from the launcher to the target in kilometers.

(25) Check the appropriate block that indicates the fuze setting.

(26) Provide details of an unusual missile flight or unusual behavior in any part of the system. Any comments that would assist personnel in determining why a missile did not hit the target should be entered. Make the description as complete as possible, including any observations concerning equipment discrepancies noted after the flight.

(27) Enter any additional remarks.

(28) Enter the name and grade or rank of the individual submitting the report.

(29) Enter the DSN number or commercial telephone number of the individual submitting the report (see table D–1 for event descriptions).

Table D–1
Event description for Army Tactical Missile System and Multiple Launch Rocket System

Phase	Success	Failure	No-test
Army Tactical Missile System			
Prelaunch	Missile achieves first motion	Prelaunch test failure or no motion after firing attempt	Prelaunch failure, mishaps, or deliberate abuse
Launch and flight	Missile follows prescribed trajectory to dispense and warhead event	Missile failed to follow trajectory, did not arrive at programmed destination, or no warhead event occurred	Prelaunch failure, mishaps, or deliberate abuse
Multiple Launch Rocket System			
Preflight	Rocket leaves the launcher on firing attempt	Rocket does not launch on fire attempt and the failure is caused by the rocket or pod	Rocket does not launch on the fire attempt and the failure was caused by launcher malfunction
Flight	Rocket trajectory appears to be correct in azimuth, range, and height	Rocket trajectory is obviously out of azimuth, range, or height	There was a preflight failure or no-test
Fuse	Smoke, simulation warhead event is observed	Smoke is not observed	There was a preflight failure or no-test
Warhead	Same as indication for fuse success and impact is not monolithic	Same indication as for fuse, but impact is monolithic	There was a preflight failure, no-test, or fuse failure

D–7. Procedures for completing DA Form 5583

a. The completed DA Form 5583 (Missile Firing Data Report (Hellfire)) and all requested data are unclassified.

b. Most of the blocks on the form are self-explanatory. Make entries in all blocks. Blocks that are not applicable or the information is unknown should be notated as such. The items listed in *paragraph D–7c* are listed for further clarification.

c. Instructions for completing DA Form 5583 (Missile Firing Data Report (Hellfire)):—

(1) Enter in the location at which the missile firing or attempt was made.

(2) Enter the date when the missile firing or attempt took place in month/day/year format.

(3) Enter the SN of the missile. The SN should be a 6- or 7-digit numeric entry.

(4) Enter the lot number of the missile. The lot number should be 13 or 14 alphanumeric digits. The first three digits should be alpha characters. The next consecutive two digits (fourth and fifth) should be numeric characters. The sixth digit should be an alpha character.

(5) Enter the type or model of the missile (that is, air to ground missile (AGM)–114C, AGM–114F).

(6) Check the block that indicates the launch platform used. If it is not listed, use the other field to designate the appropriate platform.

(7) Enter the aircraft tail number. If there are dashes in the aircraft tail number, enter it without dashes.

(8) Enter unmanned aircraft system platform firing. Enter the ground control station SN.

(9) Enter the call sign for the aircraft.

(10) Enter the UIC for the firing unit.

(11) Enter the name of the unit attempting the firing.

(12) Enter the SN of the missile launcher. If there are dashes in the SN, enter it without dashes.

(13) Check the block that indicates the position of the missile on the launcher when the firing attempt was made.

(14) Enter the numbers that indicate the position of additional missiles loaded when missile were fired.

(15) Fields noted with an asterisk should only be completed if the missiles is equipped with a health monitoring unit (HMU) and the missile data was recorded prior to the missiles being uploaded onto the aircraft. If the missile is equipped with HMU, enter the total number of hours displayed on the HMU indicating how many hours the missile has been carried on wing while the aircraft earned flight hours. HMU will display “captive carry” or “V” hours.

(16) If the missile is equipped with an HMU, enter the number of hours the HMU says the missile's seeker section was powered on.

(17) Enter the percentage of battery life remaining on the HMU.

(18) If the missile is equipped with HMU, enter the temperature the HMU says the missile was exposed to. Check the box to indicate whether the temperature was a pass (green light) or fail (red light) as displayed on the HMU.

(19) If the missile is equipped with an HMU, enter the value displayed on the HMU for relative humidity (percentage). Entry should be a whole number (no decimals).

(20) Enter the value displayed on HMU for drop shock. Check the box to indicate whether the temperature was a pass (green light) or fail (red light) as displayed on the HMU. It is the responsibility of the pilot or gunner to fill out this section.

(21) Enter any maintenance-related events for the missile or launcher related to the firing event.

(22) Enter in the firing agency attempting the firing.

(23) Check the block that best describes why the firing attempt was made. If other, explain.

(24) Check the appropriate block for the wind velocity and list the vector. The directional vector should be submitted in degrees. If information for wind speed is only available in knots, the following conversions can be used: 0–5 MPH = 0–4.3 knots; 5–10 MPH = 4.3–8.7 knots; 10–15 MPH = 8.7–13.0 knots; 15–20 MPH = 13.0–17.4 knots; 20–30 MPH = 17.4–26.0; over 30 MPH = over 26.1 knots.

(25) Check the block that most appropriately describes the weather.

(26) Enter the ambient temperature at the firing location and check the block to indicate if the temperature is recorded as Celsius or Fahrenheit.

(27) Enter warhead delay ("R" variants only) for the delay type used.

(28) Enter the laser code used for the firing. This value must be four numeric characters.

(29) Indicate whether visible obscurants were natural or induced. If no obscurants were observed write "none" in the Other field.

(30) Check the block indicating whether the missile counter-counter measures switch was in the up or down position.

(31) Enter the number of previous missile firings the gunner has made.

(32) Check the block that indicates the appropriate designator mode used.

(33) If a remote designator was used, enter the designator offset in degrees. The remote designator offset is the number of degrees (between 0 and 60) in the angle between the gun target line and the remote designator to target line. If the remote designator platform was an aircraft, enter the associated tail number. Enter the remote designator aircraft call sign. Enter in the distance from the designator to the target in kilometers.

(34) The target offset angle is the difference between the aircraft azimuth reference line (gun target line) and the designating system (laser target line). It can be read directly from the sighting system pointing angle (potentially indicated by (^) open caret or triangle) relative to the lubber line (for example, Target Acquisition Designation System (TADS) tracking target 5 degrees to the right of the lubber line, then enter 5 right).

(35) Select the box that represents the type of launch for this firing attempt. If the launch mission was a rapid or ripple firing, submit a separate firing report for each missile fired.

(36) Check the block for the appropriate firing mode used.

(37) Enter the lock on after launch delay time in seconds after missile separation.

(38) Select the appropriate target category and enter in the speed if moving is selected. The speed must be entered in MPH.

(39) Check the block for target type used. If other, enter target type.

(40) Enter in the approximate target size (for example, 8 feet by 8 feet).

(41) Enter the distance to target from launch platform in kilometers.

(42) Select which fuze delay was used, if applicable.

(43) Select the type of designator used. If other, explain.

(44) Check the tracking method used.

(45) Check the block for boresight used.

(46) Check the block for type of target acquisition sensor used.

(47) Check the block that indicates if backscatter avoidance techniques are used.

(48) Enter the aircraft altitude in feet above ground level.

(49) Enter the speed of the aircraft in knots.

(50) Check block indicating if the prelaunch BIT indicated a pass, failure, or was not preformed.

(51) Check block indication if a cockpit or payload video is available of the missile launch, flight, and target impact.

(52) Check the block to indicate if the missile launched or not.

(53) Check the appropriate box that describes the impact of the missile. If the “missed target” block is checked, complete all appropriate subcategories. For example, if the missile over flies the target, impacting 5,000 meters from the launcher, to the right of the target, the long and right blocks would be checked, and the “estimated range from launcher to impact point” would be 5 kilometers. If the “hit target” block is checked and the “range from launch platform to target” block is populated, then the “estimated range from launcher to impact” block should be left blank.

(54) Check the appropriate block indicating if the warhead detonated or not.

(55) If the target was missed, check the block that most accurately describes why.

(56) If the target was missed, describe flight below, especially missile behavior. Describe any maintenance-related events for the missile or launcher related to the firing event. This block must be filled out in the case of a target miss for any reason. Provide as much information as possible, using the reverse side of the form if necessary.

(57) In the From field, enter the complete mailing address for the unit attempting to fire the missile.

(58) At the bottom of the form, enter in the name and grade of the gunner and pilot, as well as a DSN phone number and the date this form was filled out. The DSN phone number must be in the format XXX–XXXX.

D–8. Procedures for completing DA Form 3662

a. The completed DA Form 3662 (Missile Firing Data Report (Longbow)) and all requested data are unclassified.

b. Most of the blocks on the form are self-explanatory. Entries should be made in all blocks. Blocks that are not applicable or the information is unknown should be notated as such.

c. To complete DA Form 3662 (Missile Firing Data Report (Longbow)), in the From block, write the complete address, including the ZIP Code, for the unit attempting the missile firing.

(1) Enter in the location where the missile firing or attempt occurred.

(2) Enter the date when the missile firing or attempt took place in month/day/year format.

(3) Enter the SN of the missile. The SN should be a 6-digit numeric entry.

(4) Enter the lot number of the missile. The lot number should be 13 or 14 alphanumeric digits. The first three digits should be alpha characters. The next consecutive two digits (fourth and fifth) should be numeric characters. The sixth digit should be an alpha character.

(5) Check the block for the launch platform. If it is not listed, use the “other” field to designate the appropriate platform.

(6) Enter the aircraft tail number. If there are dashes in the aircraft tail number, enter it without dashes.

(7) Enter the call sign for the aircraft.

(8) Enter the UIC for the firing unit.

(9) Enter the name of the unit attempting the firing.

(10) Enter the SN of the missile launcher. If there are dashes in the SN, enter it without dashes.

(11) This block is used to describe the installation where the missile is uploaded for the firing attempt. Check the block that indicates the position of the missile on the launcher when the firing attempt was made.

(12) If the missile is equipped with an HMU, enter the total number of hours displayed on the HMU indicating how many hours the missile has been carried on wing while the aircraft has earned flight hours. HMU will display “captive carry” or “V” hours.

(13) If the missile is equipped with an HMU, enter the number of hours the HMU says the missile’s seeker section was powered on.

(14) If the missile is equipped with an HMU, enter the percentage of battery life remaining on the HMU.

(15) Enter the temperature the HMU says the missile was exposed to. Check the box to indicate whether the temperature was a pass (green light) or fail (red light) as displayed on the HMU.

(16) If the missile is equipped with an HMU, enter the value displayed on HMU for drop shock. Check the box to indicate whether the temperature was a pass (green light) or fail (red light) as displayed on the HMU.

(17) Enter any maintenance-related events for the missile or launcher related to the firing event.

(18) Enter in the firing agency attempting the firing (for example, U.S. Army, U.S. National Guard, USAR, U.S. Navy, U.S. Marines, and so forth).

(19) Check the block that best describes why the firing attempt was made. If other, explain.

(20) Check the appropriate block for the wind velocity and list the directional vector. The directional vector should be submitted in degrees. If information for wind speed is only available in knots, the following conversions can be used: 0–5 MPH = 0–4.3 knots; 5–10 MPH = 4.3–8.7 knots; 10–15 MPH = 8.7–13.0 knots; 15–20 MPH = 13.0–17.4 knots; 20–30 MPH = 17.4–26.0; over 30 MPH = over 26.1 knots.

(21) Check the block that most appropriately describes the weather at the time of firing.

(22) Enter the ambient temperature at the firing location and check the block to indicate if the temperature is recorded as Celsius or Fahrenheit. This entry must be a numerical value.

(23) Indicate whether visible obscurants were natural or induced. If no obscurants were observed, write “none” in the other field.

(24) Enter the number of previous Longbow missile firings the gunner has made.

(25) Check the appropriate block for target handover: TADS, Internet data modem, Integrated Helmet and Display Sight System, fire control radar, or RF handover.

(26) If the missile was fired using an Internet data modem handover, enter in the aircraft tail number, the aircraft call sign, the source range to target in kilometers, and the position confidence number.

(27) The target offset angle is the difference between the aircraft azimuth reference line (gun target line) and the designating system (Laser target line). It can be read directly from the sighting system pointing angle (potentially indicated by (^) open caret or triangle) relative to the lubber line (for example, TADS tracking target 5 degrees to the right of the lubber line, then enter 5 right).

(28) Check block for the appropriate firing mode used.

(29) Enter the lock on after launch delay time in seconds after missile separation.

(30) Select the appropriate target category and enter in the speed if moving is selected. The speed must be entered in MPH.

(31) Check block for target type used. If other, enter target type.

(32) Enter distance to target from launch platform in kilometers.

(33) Check tracking method.

(34) Check block for bore-sight used.

(35) Enter the aircraft altitude.

(36) Enter the speed of the aircraft in knots.

(37) Check the box to indicate if cockpit video is available.

(38) Check the block indicating if the prelaunch power on BIT indicated a pass or failure.

(39) Check the block indicating if the prelaunch manual initiated BIT indicated a pass, failure, or was not preformed.

(40) Check the block indicating if the prelaunch continual BIT indicated a pass or failure.

(41) Check the block to indicate if the missile launched or not.

(42) Check the appropriate box indicating the impact of the missile. If the “missed target” block is checked, complete all appropriate subcategories. For example, if the missile over flies the target, impacting 5,000 meters from the launcher, to the right of the target, the long and right blocks would be checked, and the “estimated range from launcher to impact point” would be 5 kilometers. If the “hit target” block is checked and the “range from launch platform to target” block is populated, then the “estimated range from launcher to impact” block should be left blank.

(43) Check the appropriate block indicating if the warhead detonated.

(44) If the target was missed, check the block that most accurately describes why.

(45) If the target was missed, describe flight below, especially missile behavior. This block must be filled out in the case of a target miss for any reason. Provide as much information as possible, using the reverse side of the form if necessary.

(46) In the From field, enter the complete mailing address for the unit attempting to fire the missile.

(47) At the bottom of the form, write in the name and grade of the gunner and pilot, as well as a DSN phone number and the date this form was filled out.

D–9. Procedures for completing DA Form 7794

a. Commanders of active, reserve, and ARNG components; field commanders of active, reserve, and ARNG components; and commanders of Army test agencies establish procedures and submit DA Form

7794 (Missile Firing Data Report (Excalibur)) for each Excalibur artillery round firing attempted. Where local procedures are applicable, the LAR or QASAS may provide assistance in the preparation of the reports.

b. Submit the original completed DA Form 7794 (Missile Firing Data Report (Excalibur)) as instructed in chapter 10.

c. In the case of a class A, B, or C malfunction (see AR 75–1) during any particular firing attempt, the firing agency will add pertinent information to the firing report.

d. Submit MFDR as soon as possible after the event. Although completed reports may be held for consolidation during a training exercise, reports should be submitted no later than 5 working days after the conclusion of the exercise.

e. The completed report and all requested data are unclassified.

f. One firing data report will be completed for each Excalibur fired.

g. The form is designed so that appropriate blocks are checked or blanks filled in with the required data. All numeric data should be filled in with the last digit in the right most position.

h. If an item cannot be positively determined, mark the other block and fill in the appropriate answer in the space provided. If additional space is needed, continue on the back of the form.

i. Once completed, send the form to Department of the Army, Office of the Product Manager—Excalibur, Building 172, Buffington Road, Picatinny Arsenal, NJ 07825. It can also be mailed to Joint Operations Center, 155 mm Inventory Manager, Building 350, Rock Island, IL 61299–6000 or email it to jmc-g3-ammo@ladc-rock4.army.smil.mil.

j. To complete DA Form 7794—

(1) Enter the firing unit. Check the box that indicates the firing agency. If the “other” block is checked, explain.

(2) Enter the location from which the firing unit was firing the Excalibur projectile. Do not include the firing unit’s actual grid locations. Use general, unclassified information only.

(3) Enter the Excalibur SN located in front of the projectile under the lot number.

(4) Enter the Excalibur lot number located in front of the projectile under the DoDIC.

(5) Enter the mission date and time.

(6) Check the block that best indicates the firing category. If other, explain.

(7) Check the block that best indicates the gunner’s experience with firing an Excalibur projectile.

(8) Check the block that indicates if this round was a part of a multiple round mission. If yes, enter the SN of the other rounds and fill out a separate form for each Excalibur round fired.

(9) Enter the ambient temperature and check the block to indicate whether the temperature is recorded as Celsius or Fahrenheit.

(10) Check the block that most appropriately describes the weather.

(11) Check the block that indicates the status of the round. If it failed physical inspection, explain.

(12) Check the block that indicates the Modular Artillery Charge System charge and indicate the zone that was being fired upon.

(13) Enter the range from gun to target in kilometers.

(14) Enter the gun quadrant elevation in miles.

(15) Check the block that most appropriately describes the target description. If other, explain.

(16) Enter the approximate target size in meters.

(17) Check the block that describes the target grid refinement. If other, explain (precision strike suite—SOF).

(18) Check the block that best explains the packaging of the round, such as was projectile in original package, original seal, container damaged, color of the humidity indicator and Remote Readiness, Asset Prognostic/Diagnosis System. The Remote Readiness, Asset Prognostic/Diagnosis System is a small sensor device installed on random containers to record environmental conditions experienced over its storage life.

(19) Check the block that indicates how the round impacted on the target.

(20) Check the block that indicates—

(a) The distance that the round missed the target by.

(b) In which direction was the miss offset.

(21) Check the block that indicates if the round was unobserved or observed to have flown to the ballistic impact point.

(22) Enter any anomalies with the mission or firing.

(23) Enter your name and grade.
(24) Enter your DSN phone number.
(25) Enter your email.
(26) Enter the date.

D–10. Procedures for completing DA Form 7853

a. The completed DA Form 7853 (Missile Firing Data Report (Guided Rockets)) and all requested data are unclassified.

b. Most of the blocks on the form are self-explanatory. Make entries in all blocks. Blocks that are not applicable or the information is unknown should be notated as such.

Appendix E

Causative Research Inventory Checklist for Ammunition

E–1. General

This appendix outlines the causative research inventory checklist for ammunition.

E–2. Checklist

Use the following checklist when conducting a causative research inventory.

a. Identify all documents that relate directly to the variance (receipts, issues, shipments, and adjustments).

b. Use the last inventory as a starting point for the process, if applicable.

c. Build a temporary research file for each item.

d. Compare the documents to actual postings to see if posting errors exist.

e. Check the status on receipts and shipments to determine if the actions were completed but not posted.

f. Locate all magazine data cards (DA Form 3020) on file and in use at storage locations.

g. Compare inventory count sheets against stock records and annotate any discrepancies.

h. Determine at what point the actual administrative error possibly occurred.

i. Document the circumstance that caused the variance.

j. When a document posting error is discovered, determine if there is a corrected posting. If there is not, make the necessary posting correction.

k. After making all corrections, determine the need for DA Form 444 (Inventory Adjustment Report (IAR)) and, if required, initiate the report.

l. Document the procedure used to resolve the error in a memorandum for record. Make changes in the operating procedures to prevent the recurrence.

m. Causative research will be completed within 30 calendar days following completion of the inventory. Causative research ends when the cause of the variance has been determined or no specific cause can be identified.

Appendix F

Salvage and Residue Items

F–1. Background

Salvage and residue items are generated when ammunition items are expended. The retail APSR will identify the residue required to be turned into the ASP by DoDIC (if applicable) and NSN. Ammunition that do not have residual contents after consumption will require DA Form 5692.

F–2. Formatting

Format the information as follows:

a. Department of Defense identification code. The DoDIC.

b. National stock number or nomenclature. There are several NSN or nomenclature entries for each DoDIC. The first entry is the live ammunition item. The entries that follow are the residue items generated when the ammunition is consumed. In some cases, such as DoDIC C449, a single component may have several NSNs. In this case, all applicable NSNs are listed under the DoDIC.

c. Unit pack. The quantity of items in the DoDIC.

d. Reconciliation.

(1) The using unit must turn in all residue for reconciliation purposes. If the residue and live ammunition turn-in quantity is less than the quantity of the ammunition issued, the unit commander or civilian equivalent will initiate DA Form 5811 and forward the form to the first lieutenant colonel (rank and grade of O–5) or the civilian equivalent in the chain of command for appropriate action and completion. The completed form will accompany the unit's turn-in documents for reconciliation and retention by the ASP.

(2) For items with no entry in the Reconciliation column, ACOM commanders will establish policies and procedures for recovery, turn in, and disposal.

(3) The Conventional Ammunition Packaging and Unit Load Data Index is available at https://mhp.redstone.army.mil/mhpmain.aspx.

F–3. Salvage and residue listings

FSC and a brief description of each is as follows:

a. FSC 1305, ammunition through 30 mm (small arms).
b. FSC 1310, ammunition over 30 mm but less than 75 mm.
c. FSC 1315, 75 mm through 125 mm ammunition.
d. FSC 1320, ammunition over 125 mm.
e. FSC 1330, grenades.
f. FSC 1340, rockets and rocket ammunition.
g. FSC 1345, land mines.
h. FSC 1365, military chemical agents.
i. FSC 1370, pyrotechnics.
j. FSC 1375, demolition material.
k. FSC 1390, fuzes.
l. FSC 1400, series missiles.

Appendix G

Salvage and Residue Weights

G–1. Background

Users may weigh expended small arms ammunition cartridges to determine if the ammunition issued to the unit was fired and if the total quantity of ammunition issued, less live ammunition turned in, equals the amount of residue turned-in. Table G–1 provides the weight for each type of small arms cartridge casing. A request for information for casings not listed in the APSR will be submitted to AESIP and will be determined locally.

Table G–1
Brass conversion chart

Case type	Weight (pounds)
.22 caliber, brass, short	0.0008
.22 caliber, brass, long	0.0014
.30 caliber, brass, carbine	0.0101
.30 caliber, steel, carbine	0.0081
.30 caliber, brass, all	0.0286
.38 caliber, brass, all	0.009
.45 caliber, brass, all	0.0124
.45 caliber, steel, all	0.012
.50 caliber, brass, all	0.121
.50 caliber, steel all	0.111
5.56 mm, brass, all	0.0135
5.56 mm marking rounds	.0253
7.62 mm, brass, large	0.026
9 mm	0.009
20.0 mm, brass, small	0.2
20.0 mm, brass, large	0.25
25 mm, all	0.48
Shotgun, brass, all	0.036
12 gage shotgun shell (plastic)	.01666
.300 WIN MAG	0.036

G–2. Computing total weight

Use the weights in table G–1 to compute the total weight of residue for each small arms DoDIC-issued.

G–3. Determining brass weight

To determine brass weight from the quantity of live ammunition issued, multiply the number of live rounds by the weight factor (pounds) found in. For example—

a. A user that is issued 39,875 rounds of 5.56 mm ammunition must return 538.3 pounds of brass (39,875 x 0.0135 = 538.3 pounds).

b. A user that is issued 39,875 rounds of 5.56 mm ammunition and turns in 19,875 rounds of live 5.56 mm ammunition, must return 270 pounds of brass ((39,875 −19,875) x 0.0135 = 270 pounds).

G–4. Determining number of rounds

To determine the number of rounds from the weight of brass, divide the brass weight by the weight factor (pounds). For example, a user that was issued 39,875 rounds of 5.56 mm ammunition turns in 337.5

pounds of brass; 337.5 divided by 0.0135 equals 25,000 expended rounds. Subtract the expended rounds from the total rounds issued to determine the number of live rounds that the user must turn in (39,875 − 25,000 = 14,875).

G–5. To find weight
Multiply the quantity of expended cartridge cases by the weight. Using the example, brass, short, expended rounds, 0.22 caliber, work the formula as shown below.

G–6. Formula
Quantity of the item x weight = weight of expended cartridge cases.

G–7. Computation
For example, 39,875 rounds x 0.0008 pounds = 31.9 pounds. Work to one decimal place and round down. In this example, the weight is 31 pounds expended.

Appendix H

Ownership or Purpose Codes and Action Codes for Guided Missiles and Large Rockets

H–1. Ownership codes

The ownership or purpose code provides intelligence to NICPs, stock control activities, or storage activities. It indicates who has title to the assets and for what purpose the materiel is held within an ownership. This information is provided for inventory management, requisition processing, and preparation of financial and supply status reports for decision making. Ownership codes (see table H–1 for ownership codes) are one-position, numeric characters. They segment inventory balances accounted for on inventory control records of a military Service but which are owned by others.

Table H–1
Ownership codes

Code	Title	Explanation
1	Army	Applies to stocks held on inventory control records of a non-Army item manager but owned by Army.
2	DLA	Applies to stocks on inventory control records of an Army item manager but owned by DLA. Includes assets procured, stored, and issued by the Army based on approved funded requirements of DLA.
3	Others	Applies to stocks held on inventory control records of an Army item manager but owned by an agency outside of DoD.
4	Marine Corps	Applies to stocks held on inventory control records of an Army item manager but owned by the Marine Corps. Includes assets procured, stored, and issued by the Army based on approved funded requirements of the Marine Corps.
5	Navy	Applies to stocks held on inventory control records of an Army item manager but owned by the Navy. Includes assets procured, stored, and issued by the Army based on approved funded requirements of the Navy.
6	Air Force	Applies to stocks held on inventory control records of an Army item manager but owned by the Air Force. Includes assets procured, stored, and issued by the Army based on approved funded requirements of the Air Force.
7	Other DoD	Applies to stocks held on inventory control records of an Army item manager but owned by a DoD agency other than a military Service.
8	Integrated logistics partnership	Applies to stocks held on inventory control records of an Army item manager but owned by the integrated logistics partnership.
9	Other item manager	Applies to assets on inventory control records of an Army item manager but owned by another item manager within the Army. Includes materiel owned by DA activities, must be reserved, and is restricted for issue to specific support programs.
0	Not assigned	Reserved for future assignment by DoD.

H–2. Purpose codes

Purpose codes (see table H–2 for purpose codes) are one-position, alphabetic or numeric characters. They identify the purpose for which an inventory balance is reserved.

Table H–2
Purpose codes

Code	Title	Explanation
A	General issue	Includes all operating stocks retained for general issue that are not earmarked, reserved, or restricted for issue to specified requirements. Includes assets reserved for issue priority designator 01–08 within control levels. Items are available for issue to meet the assigned logistical support responsibilities of the item managers.

Table H–2
Purpose codes—Continued

Code	Title	Explanation
B	Other WR materiel	Identifies requirements and assets designated by AMC for support of U.S. forces beyond the prepositioning (retail) timeframes and such other WR accounts as may be directed by AMC. The primary account is CONUS.
C	Specific WRs	Applies to all requirements and assets designated as specific WR accounts
D	Rapid deployment force	Applies to all WR accounts authorized for the rapid deployment force or southwest Asia. Identifies requirements and assets that may be stored in CONUS or prepositioned
E	Reserved for specific plans or projects	Applies to assets, other than general WRs and specific WRs or held to support requirements of a specific plan, project, or operation
F	Reserved for production and maintenance	Applies to assets held to support military Service repair, alteration, modification, conversion, or assembly programs to be done at an Army or other DoD repair or overhaul facility
G	Reserved for provisioning	Includes stocks reserved to ensure delivery of support items with the related end items
H	Reserved for Government-furnished materiel	Applies to assets held for issue as Government-furnished materiel. Also called Government-furnished property or Government-furnished equipment to support contractually accomplished repair or production programs.
I	AEs requiring demilitarization	Applies to AEs requiring demilitarization that are found on AMCOM accountable records only
J	Reserved for grant aid	Applies to assets allocated and earmarked for grant aid
K	Reserved for loan	Applies to assets held on record for loan, donation, or sale to authorized individuals, clubs, organizations, institutions, or municipalities for purposes such as display and exhibition
L	Suspended (on loan)	Includes Army-owned, programmed inventories that have been approved for issue and are on loan. However, they may be recalled when needed to meet the gross requirements of the Army.
M	Potential excess	Includes assets over and above authorized retention limits of the Army. They are held pending completion of use screening by DoD, governmental, or nongovernmental agencies. Applies to Project PLUS criteria for screening of items against DoD require.
N	Potential security assistance	Assets are excess to Army needs and have been offered on an FMS survey
O	Not used	
P	Reserved for Cooperative Logistics Supply Support Arrangement	Stocks allocated and earmarked for issue against U.S. commitments under Cooperative Logistics Supply Support Arrangement
Q	Combat support allocated stocks	Allocated and earmarked for certain Joint Chiefs of Staff requirements
R	Reserved for Regular Army decrement stocks	Applies to assets earmarked for issue to bring Regular Army units from the current authorized level of organization to the full required authorized level of organization (level 1)
S	Theater backup	Identifies requirements and assets that would normally be prepositioned forward but, by agreement between AMC and the appropriate major command, are stored in CONUS
T	Mission Reserve Component WR and full Army mobilization	Assets reserved for Reserve Component forces designated for active duty
U	Basic load items	Applies to all assets held for basic items (ammunition)

Table H–2
Purpose codes—Continued

Code	Title	Explanation
V	Logistic account transactions	Applies to all assets held for logistic account transactions
W	Basic issue item	Includes serviceable and unserviceable economically reparable basic issue items removed from major end items and stocks received and held in storage to complete major end items
X	Special WR stockpile	A CONUS or overseas prepositioned WR account to identify WR requirements and assets for AMC-specified accounts, such as new equipment fielding
Y	Reserved for major item interchange assets	Identifies assets purchased and reserved by the item manager to satisfy other agencies' or activities' major item interchange requisitions
Z	Reserved for use by inventory control point and stock control activity	Using an inventory control point and a stock control activity, advise the Commander, AMC of assignment of this code for review, possible standardization, and assignment of a DA-reserved code
0	Unit OPL	Applies to all assets held for unit OPL
1	APS	Applies to all assets held for APS
2	Bill of lading at ASP	Applies to all assets held for bill of lading at ASP
3	Others	Others
4	Training	Applies to all assets held for training
5	UBL–ISS	Applies to all assets held for UBL–ISS
6	RDT&E/Test	Applies to all assets held for RDT&E/test
7	Special Defense Acquisition Fund	Special Defense Acquisition Fund
8	FMS	FMS
9	Other item manager	Other item manager

H–3. Large rocket ammunition

The codes listed in table H–3 identify large rocket ammunition.

Table H–3
Guided missile and large rocket action codes

Code	Explanation
F	Addition of information due to changes or error
Y	Combat loss
E	CC change
R	Deletion of information due to change or error
Q	Items expended in testing (firing and other test) lot acceptance
K	Items expended in training (including ASPs and troop demonstrations) and expended in firing by Army
L	Items salvaged or demilitarized
O	Other losses (Armed Forces Day, very important person demonstrations, firing, and so forth)
C	Receipt from other area or activity. Report both the reporting UIC and the UIC received from
B	Receipt from CONUS depot
P	Receipt from manufacturer or contractor
A	Reconciliation reports

Table H–3
Guided missile and large rocket action codes—Continued

Code	Explanation
D	Shipment or transfer to another area or activity
J	Shipments or transfer to claimant other than Army
G	Shipment or transfer to CONUS depot
H	Shipment or transfer to manufacturer or contractor
N	Change of component data due to replacement
T	Correction or erroneous data
X	Account-code changes (Retail-unique)

H–4. Number types

The codes listed in table H–4 identify the type of number (serial, lot, or combination of the two) under which a GMLR is reported. These data items relate directly to card code and serial or lot number indicator for end items only in AR 700–28.

Table H–4
Guided missile and large rocket codes

Code	Explanation
A	SN item
B	Lot number item
C	Mixed SN and lot number
D	Unknown (there is a number, but the reporting agent cannot distinguish the number)
E	None

H–5. Systems

The codes listed in table H–5 identify GMLRs by systems (AR 700–28).

Table H–5
Guided missile and large rocket systems identification codes

Code	System
C	Chaparral
H	Targets
J	Redeye
V	Shillelagh
2	TOW missile
S	Hawk
N	Lance
5	Dragon
R	Stinger
F	MLRS
3	Pershing II
6	PATRIOT
X	Roland
P	Hellfire

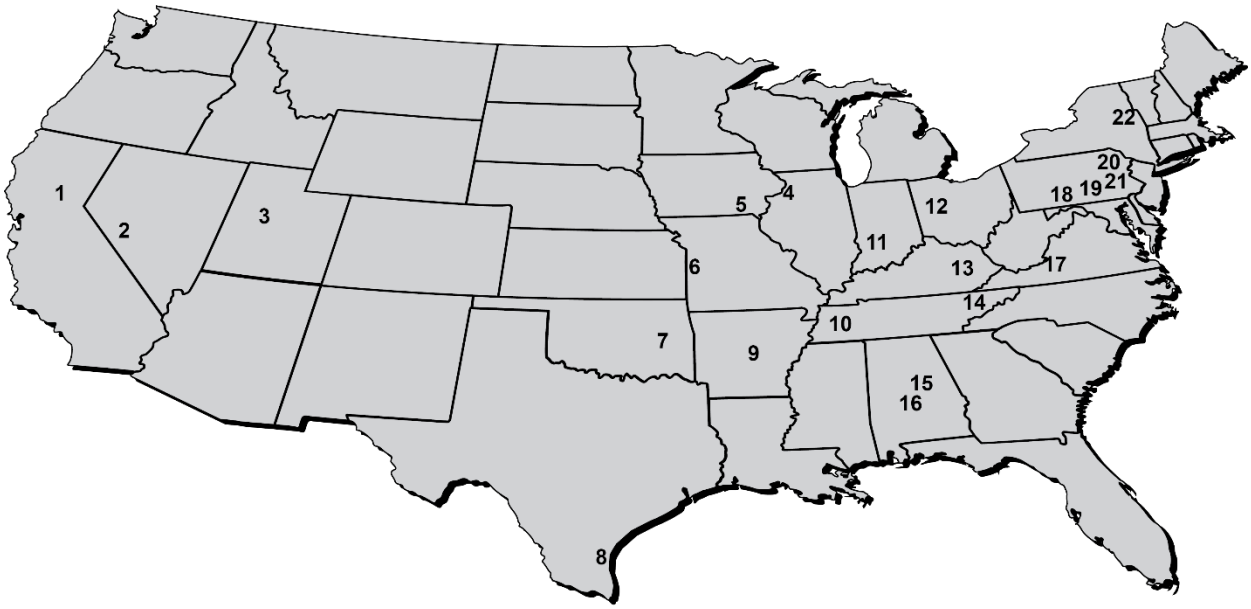
Appendix I

Ammunition Supply Facilities

DoD ammunition is stored, monitored, maintained, and moved through a combination of military and commercial means. This network includes military, DA civilian, and commercial facilities, equipment, and personnel.

I–1. Permanent and temporary ammunition storage locations

Permanent and temporary storage locations are shown in figure I–1. For details on whether facilities are GOCO or GOGO, see figure 6–1.



1. Sierra AD (TACOM) ▲	12. Lima Joint Sys. Manufacturing Center (TACOM) △
2. Hawthorne AD (JMC) △	13. Bluegrass AD (JMC) △
3. Tooele Army Depot (JMC) △	14. Holston AAP (JMC)
4. Rock Island Arsenal (TACOM)	15. Anniston Army Depot Ground Combat Vehicles (TACOM)
5. Iowa AAP (JMC)	16. Anniston Munitions Center (JMC) △
6. Lake City AAP (JMC)	17. Radford AAP (JMC)
7. McAlester AAP (JMC) ▲	18. Letterkenny Munitions Center (JMC) △
8. Corpus Christi AD Rotary Wing Aircraft (AMCOM)	19. Letterkenny Army Depot Missiles (AMCOM)
9. Pine Bluff Arsenal (JMC) (682 Personnel)	20. Scranton AAP (JMC)
10. Milan AAP (JMC)	21. Tobyhanna AD Comm-Electronics (CECOM)
11. Crane AAA (JMC) ▲	22. Watervliet Arsenal (TACOM)

Organic Industrial Base Legend

AAA = Army Ammunition Activity AAP = Army Ammunition Plant AD = Army Depot 15 GOGO 8 GOCO

3 Manufacturing Arsenal
△ 1 Joint Systems Manufacturing Center

△ 5 Maintenance Depots
1 Storage Depot

6 Munitions Production
△ 5 Munitions Storage
▲ 2 Munitions Production & Storage

Figure I–1. Permanent and temporary ammunition storage locations

I–2. Continental United States ammunition storage locations

For CONUS, see table I–1.

Table I–1
Continental United States

Facility	Location	Owner	DoD activities address code	Safe haven	Ammunition holding area	Storage type
Aberdeen Proving Grounds ASP	Maryland	IMCOM	W91CRE			Tactical
Anniston Munitions Center	Alabama	AMC	W31G1Z	Yes		Strategic
Blue Grass Army Depot	Kentucky	AMC	W22P1H			Strategic
Camp Atterbury ASP	Indiana	ARNG	W53P1M		2	Tactical
Camp Blanding Joint Training Center ASP	Florida	ARNG	W90GWP			Tactical
Camp Bowie ASP	Texas	ARNG	W81JTH			Tactical
Camp Clark ASP	Missouri	ARNG	W90GXA			Tactical
Camp Dawson ASP	West Virginia	ARNG	W81J6Y			Tactical
Camp Dodge ASP	Iowa	ARNG	W54CJX			Tactical
Camp Edwards ASP	Massachusetts	ARNG	W13A8L			Tactical
Camp Grafton ASP	North Dakota	ARNG	W81K9F			Tactical
Camp Grayling ASP	Michigan	ARNG	W56D9B			Tactical
Camp Guernsey ASP	Wyoming	ARNG	W81DFF			Tactical
Camp Hartell ASP	Connecticut	ARNG	W90GWG			Tactical
Camp Johnson ASP	Vermont	ARNG	W90GWK			Tactical
Camp Keyes ASP	Maine	ARNG	W90GW9			Tactical
Camp Lincoln ASP	Illinois	ARNG	W81NTB			Tactical
Camp Marseilles ASP	Illinois	ARNG	W90GWJ			Tactical
Camp Maxey ASP	Texas	ARNG	W81RD6			Tactical
Camp McCain ASP	Mississippi	ARNG	W81LK9			Tactical

Table I–1
Continental United States—Continued

Facility	Location	Owner	DoD activities address code	Safe haven	Ammunition holding area	Storage type
Camp Perry ASP	Ohio	ARNG	W90GWT			Tactical
Camp Rapid ASP	South Dakota	ARNG	W90GWH			Tactical
Camp Ravenna ASP	Ohio	ARNG	W56VJZ			Tactical
Camp Rilea ASP	Oregon	ARNG	W90GWY			Tactical
Camp Ripley ASP	Minnesota	ARNG	W90GW6			Tactical
Camp Roberts ASP	California	ARNG	W800AJ			Tactical
Camp Robinson ASP	Arkansas	ARNG	W90GWM			Tactical
Camp Santiago ASP	Puerto Rico	ARNG	W81K6A			Tactical
Camp Shelby ASP	Mississippi	ARNG	W35PWX			Tactical
Camp Sherman ASP	Ohio	ARNG	W90GWU			Tactical
Camp Swift ASP	Texas	ARNG	W81RD8			Tactical
Camp Umatilla ASP	Oregon	ARNG				Tactical
Camp Williams ASP	Utah	ARNG	W80JNL		1	Tactical
CAAA	Indiana	AMC	W53XMD			Strategic
Dugway Proving Grounds ASP	Utah	ATEC	W56GPY			Tactical
Duke Field ASP	Florida	IMCOM	W56DFP			Tactical
Florence ASP	Arizona	ARNG	W81CUW			Tactical
Fort AP Hill ASP	Virginia	IMCOM	W26HBU			Tactical
Fort Benning ASP	Georgia	IMCOM	W33WXP		1	Tactical
Fort Bliss ASP	Texas	IMCOM	W45QQ9	Yes		Tactical
Fort Bragg ASP	North Carolina	IMCOM	W36B47		1	Tactical
Fort Campbell ASP	Kentucky	IMCOM	W34GNA			Tactical
Fort Carson ASP	Colorado	IMCOM	W51HUT			Tactical

Table I–1
Continental United States—Continued

Facility	Location	Owner	DoD activities address code	Safe haven	Ammunition holding area	Storage type
Fort Chaffee ASP	Arkansas	ARNG	W90DED			Tactical
Fort Custer ASP	Michigan	ARNG	W56LTC			Tactical
Fort Devens ASP	Massachusetts	IMCOM	W13B8V	Yes		Tactical
Fort Dix ASP	New Jersey	IMCOM	W15A9U			Tactical
Fort Drum ASP	New York	IMCOM	W16BEU			Tactical
Fort Gordon ASP	Georgia	IMCOM	W33W9H			Tactical
Fort Harrison ASP	Montana	ARNG	W90GWN			Tactical
Fort Hood ASP	Texas	IMCOM	W45QRE		1	Tactical
Fort Huachuca ASP	Arizona	IMCOM	W61DEL		4	Tactical
Fort Hunter Liggett ASP	California	IMCOM	W81W0U			Tactical
Fort Indiantown Gap ASP	Pennsylvania	ARNG	W25RAY	Yes	1	Tactical
Fort Irwin ASP	California	IMCOM	W80WLH			Tactical
Fort Jackson ASP	South Carolina	IMCOM	W37R7A			Tactical
Fort Knox ASP	Kentucky	IMCOM	W22PL1			Tactical
Fort Leavenworth ASP	Kansas	IMCOM	W55C6G			Tactical
Fort Lee, Virginia ASP	Virginia	IMCOM	W26HBK			Tactical
Fort Leonard Wood ASP	Missouri	IMCOM	W58RD6			Tactical
Fort Lewis ASP	Washington	IMCOM	W68EVP	Yes		Tactical
Fort McClellan (Pelham Range) ASP	Alabama	ARNG	W905D6			Tactical
Fort McCoy ASP	Wisconsin	IMCOM	W5CD27			Tactical
Fort Pickett ASP	Virginia	ARNG	W90T8G			Tactical
Fort Polk ASP	Louisiana	IMCOM	W42CXA			Tactical
Fort Riley ASP	Kansas	IMCOM	W81FG8	Yes	1	Tactical

Table I–1
Continental United States—Continued

Facility	Location	Owner	DoD activities address code	Safe haven	Ammunition holding area	Storage type
Fort Rucker ASP	Alabama	IMCOM	W31R4Z			Tactical
Fort Sam Houston ASP	Texas	IMCOM	W45NQJ			Tactical
Fort Sill ASP	Oklahoma	IMCOM	W44QQ8		1	Tactical
Fort Stewart ASP	Georgia	IMCOM	W81X4C			Tactical
Fort Wolters ASP	Texas	ARNG	W90GW4			Tactical
Gila Bend ASP	Arizona	ARNG	W56MKD			Tactical
Gowen Field	Idaho	ARNG	W81JKP			Tactical
Greenlief ASP	Nebraska	ARNG	W81K5Y		1	Tactical
Hawthorne Army Depot	Nevada	AMC	W65XME			Strategic
Idaho ARNG ASP	Idaho	ARNG	W81JKP		1	Tactical
Joint Base Langley-Eustis ASP	Virginia	IMCOM	W26RK5			Tactical
Letterkenny Munitions Center	Pennsylvania	AMC	W25G1R			Strategic
MCAAP	Oklahoma	AMC	W44W9M			Strategic
Military Ocean Terminal Sunny Point		AMC	W568JT			
New Castle ASP	Delaware	ARNG	W90GWL			Tactical
Onate ASP	New Mexico	ARNG	W81J8Y			Tactical
Papago ASP	Arizona	ARNG	W90HEJ			Tactical
Picatinny Arsenal ASP	New Jersey	AMC	W907CC			Tactical
PBA	Arkansas	AMC				Strategic
Raleigh SSA ASP	North Carolina	ARNG	W81KDR			Tactical
Redstone Arsenal ASP	Alabama	IMCOM	W90D9V			Tactical
Rock Island Arsenal ASP	Illinois	AMC	W90KUS			Tactical
Tooele Army Depot	Utah	AMC	W67G23			Strategic

Table I–1
Continental United States—Continued

Facility	Location	Owner	DoD activities address code	Safe haven	Ammunition holding area	Storage type
United States Property and Fiscal Office Carson City ASP	Nevada	ARNG	W90GU1			Tactical
United States Property and Fiscal Office Rhode Island ASP	Rhode Island	ARNG	W91UJV			Tactical
West Point ASP	New York	IMCOM	W91FFL			Tactical
White Sands Missile Range ASP	New Mexico	ATEC	W81WB8			Tactical
Yakima ASP	Washington	IMCOM	W68P9X			Tactical
Yuma Proving Ground ASP	Arizona	ATEC	W61PAX	Yes		Tactical

Appendix J

Joint Department Defense and Commercial Industry Forums

J–1. Joint Ordnance Commander's Group

a. JOCG pursues common business practices and merges other ammunition research, development, sustainment, and logistics groups into one life cycle conventional ammunition group. The JOCG mission includes advocating for jointness in conventional ammunition systems and processes, ensuring interoperability or interchangeability of ammunition systems, influencing and shaping policy, and advocating for effective use of the NTIB.

b. The JOCG scope includes all conventional ammunition and the total life cycle. Principal members include general and flag officers from each of the Services, including the Commanding General, JMC; JPEO Armament and Ammunition; Commanding General, Marine Corps Systems Command; Naval Air Systems Command; Program Executive Office, Unmanned Aviation and Strike Weapons; Naval Sea Systems Command; Ordnance Safety; Program Executive Office, Weapons; Air Force Life Cycle Management Center; and Air Force Materiel Command. Additional participants may include Office of the Under Secretary of Defense, Special Operations Command, Defense Contract Management Agency, Deputy Executive Director for Conventional Ammunition, and DEVCOM. The JOCG meets semiannually or more often as deemed necessary by its members.

J–2. Industrial Committee of Ammunition Producers

a. Objectives. The committee provides a forum for the open exchange of Government and industry views related to the DoD ammunition area. Specific objectives include—

(1) Review and discuss Government ammunition acquisition policies, procedures, and actions.

(2) Report on the health of the various sectors of the ammunition industry.

(3) Identify impediments to sustaining a responsive ammunition IB.

(4) Provide a platform for identifying issues related to the ammunition life cycle from development through disposal.

b. Membership. The Industrial Committee of Ammunition Producers (ICAP) is formed from the National Defense Industrial Association (NDIA) corporate membership consisting of executives from defense industry producers of ammunition and ammunition components. Membership positions include a chair and the following sector leads: large caliber and bombs, small and medium caliber ammunition, propellants and explosives, GOCOs, warheads and rockets, pyrotechnics, fuzes, systems, electronics and sensors, and demilitarization.

c. Expectations. Each member of the ICAP is expected to represent a discipline or sector of the ammunition community as described in *paragraph J–2b*. Members serve for 2 years with approximately half changing each year to maintain continuity. Members may serve longer or shorter terms at the recommendation of the chair and the concurrence of the vice president, operations, and the NDIA.

d. Meetings. The ICAP meets at the call of the ICAP chair at sites and times convenient to the membership. ICAP meetings are held semiannually along with quarterly webinars. Topics for discussion by the ICAP are solicited from NDIA members within the ammunition community and from interested Government agencies. Outside speakers will be invited as needed to address the topics. No consensus advice or recommendations resulting from group deliberation or interaction are expected. The intent is to share an open exchange of information or viewpoints between attendees rather than to formulate collaborative advice, opinions, or recommendations from the ICAP acting in a collective mode.

e. Government relations. The objective of the ICAP is the open exchange of Government and industry views; Government attendance is encouraged. The NDIA chair may invite various Government organizations and request Government attendance at the ICAP consistent with the DoD joint ethics regulation. Government participants are involved in the management or control of the ICAP or other NDIA activities. The NDIA chair invites the following Government organizations to participate in ICAP meetings, but members of the ICAP may suggest or request at any time that other Government organizations participate or provide liaisons: JPEO Armaments and Ammunition; Program Executive Office Missiles and Space; and Commanding General, JMC.

J–3. Munitions Executive Summit

The purpose of the annual NDIA-hosted Munitions Executive Summit (MES) is to address the challenges of maintaining a stable and responsive ammunition enterprise. The MES, which is jointly presided over by JMC and JPEO Armament and Ammunition leadership, explores the contemporary dynamics that affect both the current and future industrial manufacturing complex that supports our warfighting capability. In addition to industry executives, key Government acquisition leaders, program managers, research and technology centers, and academia involved in the U.S. ammunition enterprise attend the summit. The MES forum is intended to create a thoughtful and meaningful discourse on the critical factors and developments that will shape the current and future ammunition landscape. It convenes key practitioners within the ammunition and weapons platform communities to work on solutions for the U.S. warfighter and our allies.

Glossary of Terms

Ammunition
Includes, but is not necessarily limited to, all items of training and WR ammunition, chemical propellants (liquid and solid), high and low explosives, rockets, guided missiles, warheads, devices, signals, components (including chemical fillers), and associated substances that contain energetic materiel and present potential hazards to life or property.

Ammunition and explosive
Includes, but is not necessarily limited to, all items of U.S.-titled (that is, owned by the U.S. Government through the DoD Components) ammunition; propellants, liquid and solid; pyrotechnics; high explosives; guided missiles; warheads; devices; and chemical agent substances, devices, and components presenting real or potential hazards to life, property and the environment. Excluded are wholly inert items and nuclear warheads and devices, except for considerations of storage and stowage compatibility, blast, fire, and non-nuclear fragment hazards associated with the explosives (see military munitions).

Ammunition enterprise
DoD organizations that seek to achieve the highest possible degree of effectiveness and efficiencies in DoD operations for acquisition of top quality conventional ammunition for U.S. forces.

Ammunition industrial base
A conglomeration of military ammunition production and strategic storage facilities, including GOGO, GOCO, and COCO facilities.

Ammunition Industrial Base Corporate Board
Sole management body for strategic, resource, operational, and organizational decisions affecting the ammunition IB. The board functions as the deliberative body that makes overarching strategic decisions to balance production risk and efficiencies and sustain critical manufacturing and logistics capabilities, capacities, and skills within the ammunition IB.

Ammunition Industrial Base Task Force
Commercial consortium of ammunition producers whose mission is to ensure there are adequate funding and policies to sustain a responsive capable domestic IB to develop, produce, and support superior ammunition for the U.S. military and its allies.

Ammunition residue
Items remaining after ammunition and missiles are used. Includes such items as steel, plastic, or brass cartridge cases; links; safety wires; nose plugs; launch tubes; pull rings and levers; fin protectors; safety clips; igniters; firing devices; grommets; cardboard and wooden boxes; cans; missile containers; missile components; banding strips; pallets; and other items used to package ammunition and missiles.

Ammunition supply point
A retail ammunition support activity were ammunition is received, stored, issued, and accounted for.

Army Ammunition General Officer Steering Committee
Primary senior-level ammunition forum that considers and provides direction related to Army ammunition readiness and management.

Army Ammunition Requirements Councils of Colonels
A semiannual forum, chaired by the DCS, G–3/5/7 (DAMO–TRA), and TRADOC Capability Manager-Live, responsible for formally analyzing, approving, and synchronizing proposed changes to Army ammunition requirements (institutional programs of instruction, home station or combat training center, CLs, and OPLs).

Center of Industrial and Technical Excellence
A specific, technical competency designation directed by Secretary of the Army in accordance with 10 USC 2474 for organic depot maintenance activities. Includes maintenance activities that may be performed at ammunition GOGOs.

Combat load
Standard quantity and type of ammunition an individual weapon, crew-served weapon, or a weapons platform and its TOE-designated ammunition carriers are designed to hold. CLs for bulk ammunition (grenades, signals, and so forth) are not associated with a weapon or weapons platform. Bulk ammunition

CLs are assigned by SRC and reflect the quantity of ammunition required to give unit's capability and flexibility. CLs support the initiation of contingency and combat operations and are the basic building blocks of Army WR requirements.

Enterprise–Integrated Logistics Strategy
Provides enterprise framework for optimizing readiness and efficiency across the wholesale ammunition logistics base. It addresses SDOs, third-party, and non-SDO workload and presents an approach and methodology aimed at ensuring readiness and efficiency in the face of fluctuating workload and budget.

Full materiel release
The formal certification that the materiel is safe, suitable (meets all of its performance requirements), and supportable (logistically) when used within its stated operational parameters. This certification provides the authorization for a PM to proceed to a FRP decision review (on developmental programs) when all munitions rule requirements are satisfied and fielding to Soldiers on nondevelopmental acquisition programs or when satisfying requirements with commercial products. In these cases, all FMR requirements must be satisfied.

Logistics Modernization Program
Key ERP system the ammunition community implemented as part of the Army Logistics Enterprise. LMP supports the modernization of mission business processes and leverages the AMC ERP systems to maximize the use of enterprise resources across the ammunition IB.

Malfunction
Failure of an ammunition item to function as expected when fired or launched; explosive items that fail to function. Includes hang fires, misfires, duds, abnormal functioning, and premature functioning of explosive ammunition items under normal handling, maintenance, storage, transportation, and tactical deployment. Does not include mishaps or incidents that result solely from negligence, malpractice, or situations such as vehicle accidents or fires. ACOMs, ASCCs, and DRUs divide malfunctions into four classes: class A, class B, class C, and class X.
a. Class A malfunctions result in death or lost-time injury, are similar to previous malfunctions that have resulted in death or lost-time injury, are judged as having had an appreciable probability of causing death or lost-time injury, or have adverse political implications.
b. Class B malfunctions result in damage to major equipment that cannot be repaired at the unit level of maintenance or result in an ammunition suspension that significantly impacts readiness or training.
c. Class C malfunctions involve any other performance incident not covered above.
d. Class X malfunctions involved any other nonperformance incidents (visual defects).

Military ammunition rule
Rule published by the Environmental Protection Agency on 12 February 1997 that identifies when conventional and chemical military ammunition become hazardous waste subject to the Resource Conservation and Recovery Act and provides safe storage and transportation of such waste.

Military munitions
All AE products and components produced or used by or for the DoD or the U.S. Armed Services for national defense and security, including AE products or components under the control of the DoD, the U.S. Coast Guard, the Department of Energy, and National Guard personnel. Includes confined gaseous; liquid; and solid propellants; explosives; pyrotechnics; chemical and riot control agents; smokes; and incendiaries used by DoD components, including bulk explosives and chemical warfare agents, chemical munitions, rockets, guided and ballistic missiles, bombs, warheads, mortar rounds, artillery AE, small arms AE, grenades, mines, torpedoes, depth charges, cluster munitions and dispensers, demolition charges, and devices and components thereof. Does not include wholly inert items, improvised explosive devices, and nuclear weapons, nuclear devices, and nuclear components thereof. Does include non-nuclear components of nuclear devices managed under the Department of Energy's nuclear weapons program after all required sanitizing operations under the Atomic Energy Act of 1954, as amended, have been completed (see 10 USC 101(e)(4)).

Military Munitions Rule
Issued by the Environmental Protection Agency on 12 February 1997 (Military Munitions Rule: Hazardous Waste Identification and Management; Explosives Emergencies; Manifest Exemption for Transport of Hazardous Waste on Right-of-Ways on Contiguous Properties (40 CFR Parts 260, 261, 262, 263, 264,

265, 266, and 270)). Identifies when conventional and chemical military AE become hazardous waste subject to the Resource Conservation and Recovery Act and provides safe storage and transportation of such waste. DoD issued DoDM 4715.26 to implement the Munitions Rule.

Munitions requirements and distribution process
Primary forum through which DCS, G–4; DCS, G–3/5/7; and AMC ammunition management offices distribute conventional ammunition authorizations and allocations in support of validated requirements and G–3 priorities to all ACOMs, organizations, and agencies.

National technology and industrial base
Persons and organizations engaged in research, development, production, integration, services, or information technology activities conducted within the United States and Canada (see 10 USC Chapter 148).

Operational load
The ammunition that Army units require to support or conduct a broad range of day-to-day operational missions (for example, installation EOD, special reaction team operations, ceremonies, guard missions, force protection, SOF predeployment site surveys, and so on). OPL requirements are developed in accordance with DA Pam 350–38 and AR 5–13.

Operational projects
Ammunition set aside for a specific unit or mission as outlined in AR 710–2.

Operations plan requirements
Total quantity of ammunition required to execute an ASCC's plan to equip a specified force structure to perform its assigned military mission and meet the CCDR objectives.

Public–private partnerships
Agreement between an organic depot, plant, or arsenal and one or more private or Government entities to perform work or use facilities and equipment. Partnership agreements can range from basic memorandum of understanding to more formal contracts depending on the specific situation.

Quality assurance specialist, ammunition surveillance
Member of civilian career program established to develop, manage, and execute a worldwide ammunition surveillance program. Responsible for conducting examinations, tests, and investigations required to evaluate the current degree of stockpile serviceability and determine future stockpile trends. Performs logistics functions, including monitoring all AEs operations for explosives safety regulatory compliance and providing technical advice relative to ammunition storage, issue, maintenance, demilitarization, transportation, explosives safety, and chemical surety.

Safety confirmation
A formal document that provides the MATDEV and the decision maker with the test agency's safety findings and conclusions and that states whether the specified safety requirements have been met. Includes a risk assessment for hazards not adequately controlled, lists technical or operational limitations, and highlights safety problems requiring further testing.

Single point failure
Situation where only one or no qualified source or producer of a munition end item, component, or raw material exists.

Stratification process
A uniform portrayal of requirements and assets that is a computer-generated application, time-phased simulation of actions causing changes in the supply position (for example, procurement, repair, receipt, issue, termination, and disposal of materiel).

Supply depot operation
Functions including receipt, storage, inventory, surveillance, maintenance, issue, shipment, transportation, and demilitarization.

Suspension or restriction
Administrative procedure used to identify all ammunition that have been withdrawn from issue or use, with or without qualifications, because of an unsafe or suspected unsafe condition or ammunition that cannot be expected to meet required performance under all conditions, but may be issued and used with qualifications on their use. Suspensions and restrictions may be categorized by type, block, or serious impact—

a. Type suspension or restriction. A suspension or restriction applied to all lots of one model number, including all modifications or variations produced (for example, cartridge 105-mm-HE plastic tracer M393A2 series).
b. Block suspension or restriction. A suspension or restriction applied to all lots of one particular modification or variation of a model number (for example, cartridge 105-mm-HE plastic tracer M393A2 series).
c. Serious impact suspension or restriction. A suspension or restriction that results in reducing serviceable assets of an ammunition item to less than 50 percent of the stockpile or 50 percent impact criteria at OCONUS ACOMs, ASCCs, or DRUs is determined to have a significant impact on Army readiness irrespective of percentage of stockpile affected or prevents a unit from meeting its operational commitment.
d. Specific suspension or restriction. A suspension or restriction may also be applied to a specific lot, group of lots, or SN items without being categorized as defined above.

Sustainment load
The ammunition needed to sustain a force's operations until resupply can be provided. Prior to the commencement of combat operations, a SL consists of a CL (for initiation) and a multiple of the CL for sustainment of units that actually will be in an ASCC's geographic area of responsibility prior to establishment of a sea line of communication in accordance with logistics plans in the ASCC's most demanding OSD and Joint staff-approved theater OPLAN or contingency plan. Once operations commence, SL requirements are tailored based on the ammunition required to support forces until the next scheduled resupply shipment.

Total Ammunition Management Information System
The HQDA ammunition requirements generator, prioritization tool, and reporting system for DA and subordinate Army organizations. Managed by the Army G–3/5/7 Ammunition Management Office. Used to calculate, validate, approve, and distribute ammunition authorizations and collect expenditures from each ACOM, ASCC, field operating agency, DRU, and the ARNG.

Total Ammunition Management Information System Advisory Group
DA G–3 TRA hosted forum tasked with steering TAMIS functionality, general operating guidelines, and prioritizing requirements.

Total Army ammunition requirements
By-DoDIC listing of Army near-year and out-year ammunition requirements for WRs and operations, testing, and training. Army requirements identify the types and quantities of ammunition the Army must have to execute its warfighting and daily operational, test, and training missions.

Type classification
The process used to establish the degree of acceptability of materiel for Army use and—
a. Allows implementation of DoD 5000 series milestone C, FRP, and post-full operational capability life cycle decisions and documentation discussed in AR 70–1.
b. Provides data for authorization, procurement, logistics support, asset visibility, maintenance, and readiness reporting.
c. Satisfies the Army acquisition management process to determine that materiel is type classified standard with a logistics control code A (accepted for Army use) prior to obligating procurement funds.
d. Integrates the acquisition process with standard Army logistics processes that lead to production and deployment (materiel fielding) of the materiel.

SUMMARY of CHANGE

DA PAM 700–16
Ammunition Management

This major revision, dated 23 June 2021—

- Changes the title of the publication to Ammunition Management (title page).
- Updates the purpose paragraph (para 1–1).
- Updates ammunition resourcing strategy (para 3–2).
- Updates new language on the Standard Army Ammunition System (para 11–3).
- Prescribes new DA Form 581–SG (Request for Issue and Turn-In of Ammunition) (*para 12–2d*).
- Updates signature requirement to allow for either a handwritten or digital signature on DA Form 1687 (Notice of Delegation of Authority - Receipt for Supplies) (paras 12–2d(3) and 13–16b(1)).
- Adds language on cartridge actuated devices and propellant actuated devices (*para 12–2f*).
- Transfers prescribing directive for DA Form 5515 (Training Ammunition Control Document) and DA Form 5515–1 (Training Ammunition Control Document Continuation Sheet) (*para 12–6a*).
- Transfers prescribing directive for DA Form 581–1 (Request for Issue and Turn-In of Ammunition Continuation Sheet), DA Form 3151 (Ammunition Stores Slip), DA Form 5811 (Certificate - Lost or Damaged Class 5 Ammunition Items), and DA Form 5692 (Ammunition Consumption Certificate) (*para 12–7a*).
- Updates procedures for issuing training ammunition (para 12–8).
- Updates inventory procedures (para 12–18).
- Updates stock control system procedures (para 13–1).
- Updates procedures for processing account code changes and condition code changes (paras 13–14 and 13–15).
- Distinguishes between processing shipments at the retail and wholesale level (paras 13–18 and 13–19).
- Adds new procedures for processing shipments at the wholesale level (para 13–19).
- Updates processing receipts (13–20).
- Adds new procedures for processing receipts at the wholesale level (para 13–21).
- Prescribes new DA Form 7890–SG (Inventory Control List) and DA Form 7891–SG (Inventory Count Sheet) (para 13–23e(3)).
- Adds wholesale inventory procedures (13-23o).
- Updates information on ammunition programs and decision-making forums and events (app B).
- Transfers prescribing directive for DA Form 3120 (Missile Firing Data Report (PATRIOT)), DA Form 3474 (Missile Firing Data Report (Javelin)), DA Form 3662 (Missile Firing Data Report (Longbow)), DA Form 5582 (Missile Firing Data Report (ATACMS)), DA Form 5583 (Missile Firing Data Report (Hellfire)), DA Form 7212 (Missile Firing Data Report (Stinger)), and DA Form 7213 (Missile Firing Data Report (TOW)) (app D).
- Prescribes new DA Form 7794 Missile Firing Data Report (Excalibur), DA Form 7795 (Missile Firing & Data Report (MLRS/GMLRS)), and DA Form 7853 (Missile Firing Data Report (Guided Rocket)) (app D).
- Updates salvage and residue items (app F).