



Report to the Committee on Armed
Services, U.S. Senate

February 2016

DEFENSE LOGISTICS

Enhanced Policy and Procedures Needed to Improve Management of Sensitive Conventional Ammunition

GAO Highlights

Highlights of [GAO-16-202](#), a report to the Committee on Armed Services, U.S. Senate

Why GAO Did This Study

DOD manages a stockpile of more than 226,000 SRC I missiles and rockets in the continental United States. SRC I conventional ammunition, which refers to nonnuclear, portable missiles and rockets in a ready-to-fire configuration, is managed as a higher risk than other conventional ammunition and serves as a potential threat if it were obtained by unauthorized individuals or groups.

Senate Report 113-176 (2014) included a provision for GAO to review aspects of DOD's management of SRC I ammunition. This report addresses the extent to which the military services have maintained (1) accountability and (2) visibility (i.e., access to accurate information) of SRC I ammunition in the continental United States. GAO reviewed DOD and military service policies, regulations, and guidance on physical inventories and shipping of SRC I ammunition; conducted visits at a non-generalizable sample of 11 military service locations selected based on inventory size and number of shipments of SRC I ammunition; interviewed officials; and analyzed data on SRC I on-hand assets as of April 30, 2015, and on non-generalizable samples of SRC I shipments from November 1, 2013, to April 30, 2015.

What GAO Recommends

GAO recommends that DOD revise and finalize guidance and improve the timeliness, completeness, and accuracy of information to maintain full accountability and visibility of SRC I ammunition. DOD concurred with all six recommendations and identified specific steps it has already taken as well as plans to address them.

View [GAO-16-202](#). For more information, contact Zina Merritt at (202) 512-5257 or MerrittZ@gao.gov.

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What GAO Found

The military services maintained accountability (i.e., accurate records) of Security Risk Category (SRC) I conventional ammunition at 11 sampled locations within the continental United States; however, GAO identified gaps in some service-level guidance and procedures for how SRC I ammunition is accounted for across locations. GAO identified instances in which the Navy and Army had taken actions to enhance the accountability of the physical inventories of SRC I ammunition, such as the Army evaluating its methodology to ensure contractors with SRC I ammunition in their custody submit documentation to verify completion of inventories. However,

- GAO identified 55 SRC I ammunition items that were in the physical custody of the Air Force—though owned by the Army or Marine Corps—but accountability was not maintained in any service's system of record while at the Air Force location. Department of Defense (DOD) policy requires that the DOD component having physical custody of materiel maintain accountability in its records regardless of the owner, but the Air Force's guidance requires that ammunition owned by other services be tracked only in a "non-accountable" program. If the Air Force does not revise its guidance to require that accountability be maintained regardless of ownership, the Air Force and the owning service will not have complete records of management of the ammunition and the owning service will not have full assurance that accountability was maintained.
- GAO found that Army and Marine Corps guidance does not specify a time frame for receipting shipments of SRC I ammunition. Records showed that 12 of 21 shipments to Army depots and 5 of 30 shipments to Marine Corps locations were receipted more than 2 business days after truck arrival. Until Army and Marine Corps officials finalize and implement guidance on required time frames for receipting SRC I ammunition, officials cannot reasonably assure accountability for all shipped SRC I ammunition.

The military services have not consistently ensured timely, complete, and accurate information to maintain full visibility of SRC I ammunition in the continental United States. For example, 93 of 1,008 shipments GAO examined were not entered in DOD's Defense Transportation Tracking System (DTTS) at the time of departure. Also, 9 of 104 shipments GAO examined in more detail had inaccurate controlled inventory item codes and were not identified in DTTS as SRC I shipments. The Military Surface Deployment and Distribution Command and the military services have not collaboratively determined the specific information required for the military services to ensure timely data entry into DTTS. Further, the military services, with the aid of the Military Surface Deployment and Distribution Command, have not conducted analysis of the completeness and accuracy of data entered into DTTS by shippers on SRC I ammunition shipments. Until these actions are taken, the Military Surface Deployment and Distribution Command will not have full visibility of shipments of SRC I ammunition and the military services will not be well positioned to improve their oversight of the timeliness, completeness, and accuracy of data entered in DTTS.

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Abbreviations

AA&E	Arms, Ammunition, and Explosives
CAS	Combat Ammunition System
CIIC	Controlled Inventory Item Code
DOD	Department of Defense
DODI	Department of Defense Instruction
DODM	Department of Defense Manual
DTTS	Defense Transportation Tracking System
LMP	Logistics Modernization Program
NLAC	National Level Ammunition Capability
OIS	Ordnance Information System
OIS-W	Ordnance Information System-Wholesale
OIS-R	Ordnance Information System-Retail
OIS-MC	Ordnance Information System-Marine Corps
SAAS-MOD	Standard Army Ammunition System-Modernization
SRC	Security Risk Category
WARS-NT	Worldwide Ammunition Reporting System-New Technology

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February 16, 2016

The Honorable John McCain
Chairman
The Honorable Jack Reed
Ranking Member
Committee on Armed Services
United States Senate

The Department of Defense (DOD) manages a stockpile of sensitive conventional ammunition valued at nearly \$112 billion as of October 2015.¹ One category of this sensitive conventional ammunition is identified as Security Risk Category (SRC) I ammunition, which is nonnuclear, portable missiles and rockets in a ready-to-fire configuration.² SRC I ammunition is treated as a higher risk than other conventional ammunition and serves as a potential threat if it were obtained and used by unauthorized individuals or groups.³ SRC I ammunition requires a higher level of protection and security than that provided for SRC II through SRC IV conventional ammunition. Examples of SRC I ammunition include: Stinger and Javelin missiles, the 66-mm Light Anti-Tank Weapon, and the M136 Anti-Armor Weapon.⁴ As of April 30, 2015, there were at least 226,000 SRC I ammunition items located in the continental United States.⁵ To help to adequately protect these items and minimize the risk of loss or theft, the military services have a critical role

¹Conventional ammunition is an end item, a complete round, or a materiel component charged with explosives, propellants, pyrotechnics, or initiating composition for use in connection with defense or offense as well as ammunition used for training, ceremonial, or non-operational purposes. It is neither nuclear, biological, nor chemical.

²Department of Defense Manual (DODM) 5100.76, *Physical Security of Sensitive Conventional Arms, Ammunition, and Explosives (AA&E)* (Apr. 17, 2012).

³SRC designation is based on the ammunition's utility, casualty or damage effect, adaptability, and portability. SRC I ammunition is highly explosive, extremely damaging or lethal, easy to employ without use of other systems and easily carried by one person; thus, it is accorded a category I designation. See, DODM 5100.76, encl. 7 (Apr. 17, 2012).

⁴See appendix II for photographs and descriptions of selected SRC I ammunition.

⁵The quantity for SRC I ammunition is referenced as "at least" this quantity because certain quantities of Special Operations Forces SRC I ammunition are classified information.

to maintain accountability and visibility⁶ of SRC I ammunition upon acquisition until use or demilitarization. DOD has issued guidance on how the military services should physically safeguard, track, inventory, and ship SRC I ammunition within and between services and to contractors for repair.⁷

Senate Report 113-176 (2014), accompanying S. 2410, the Carl Levin National Defense Authorization Act for Fiscal Year 2015, included a provision for us to review aspects of DOD's management of SRC I ammunition. This report addresses the extent to which the military services have maintained (1) accountability and (2) visibility of SRC I ammunition in the continental United States.

To determine the extent to which the military services have maintained accountability of SRC I ammunition in the continental United States, we reviewed DOD policy and military service guidance, including DODM 5100.76, among others, that outline accountability, physical inventories, and shipping of SRC I ammunition in the continental United States.⁸ We visited three Army depots, eight military service locations—such as military service installations, bases, and ammunition supply points—and a contractor with a current production contract for SRC I missiles. We selected these locations based on a number of factors including the size of SRC I inventory, the number of shipments to and from the location, and the variety of SRC I ammunition being stored. We collected identifying information on a non-generalizable random sample of over 600 SRC I ammunition items and conducted a comparative analysis of this sample against information in the military services' SRC I accountability systems.

⁶"Accountability" is defined as the obligation imposed by law, lawful order, or regulation that is accepted by an organization or person for keeping accurate records, to ensure control of property, documents, or funds, with or without physical possession. Department of Defense Instruction (DODI) 5000.64, *Accountability and Management of DOD Equipment and Other Accountable Property* (May 19, 2011). Asset visibility is defined as the ability to provide timely and accurate information on the location, quantity, condition, movement, and status of items in its inventory, including assets in transit. Joint Chiefs of Staff Joint Publication 3-35, *Deployment and Redeployment Operations* (Jan. 31, 2013).

⁷DODM 4140.01, *DOD Supply Chain Materiel Management Procedures: Management of Critical Safety Items, Controlled Inventory Items Including Nuclear Weapons-Related Materiel*, Volume 11 (Feb. 10, 2014); and DODM 5100.76 (Apr. 17, 2012).

⁸The Army considers Patriot missiles to be SRC I ammunition because of their high-dollar value. However, DODM 5100.76 does not include the Patriot missiles in its list of SRC I ammunition. Therefore, we did not include the Patriot missile in the scope of our review.

While the results cannot be generalized, they provided insights on how accountability is maintained at military service and contractor locations. For all Army depots, we reviewed documentation of physical inventories completed in fiscal years 2012, 2013, and 2014. In addition to our site visits, we randomly selected additional Air Force locations and obtained documentation for their last three completed physical inventories to verify completion, as discussed later in this report. Further, we selected a non-generalizable sample of 104 SRC I ammunition shipments sent from or to our site visit locations.⁹ For these shipments, we obtained and reviewed shipping documents and analyzed how the shipments were tracked to assess whether the military services complied with DOD policy and service-level guidance on shipping and receipting SRC I ammunition. We also interviewed relevant officials at the Office of the Secretary of Defense and each of the military services, which have responsibilities for SRC I ammunition to gain an understanding of how officials maintain accountability, complete physical inventories, and process in-bound and out-bound shipments of SRC I ammunition. While we identified some limitations with the overall data on SRC I ammunition by military service, we determined it is sufficiently reliable to indicate the broad order of magnitude of the items held by the Army, Navy, Marine Corps and Air Force as of April 30, 2015. The data on the number of locations in the continental United States that hold SRC I ammunition represents a snapshot in time, as ammunition can be shipped to different locations, and are subject to the same limitations we have noted. This data provides a broad indication of the relative number of locations in the continental United States by military service.

To determine the extent to which DOD has maintained visibility of SRC I ammunition in the continental United States, we obtained and analyzed SRC I ammunition data from each of the military services' automated

⁹This sample was selected separately from the sample of SRC I ammunition used to conduct a comparative analysis against the military services SRC I accountability systems, and was a sample of shipments rather than individual ammunition items. Our sample of shipments was comprised of shipments that occurred between November 1, 2013, and April 30, 2015, and that were shipped to or from locations we visited or interviewed.

information systems as of April 30, 2015.¹⁰ We compared this data, based on a number of elements—including type of SRC I ammunition, location in the continental United States, condition of the SRC I ammunition, and military service ownership codes—to data in the department’s National Level Ammunition Capability (NLAC) system, a DOD-wide repository that provides visibility of SRC I ammunition data. We also analyzed data from the Defense Transportation Tracking System (DTTS) about 1,008 SRC I shipments reported to us by the Military Surface Deployment and Distribution Command between November 1, 2013, and April 30, 2015 to understand how the system provides visibility of SRC I ammunition shipments. Using this data and additional data we obtained for our non-generalizable sample of 104 shipments described above, we assessed whether the military services complied with requirements in the Defense Transportation Regulation regarding the use of DTTS to track shipments of SRC I ammunition. We interviewed relevant officials at the Office of the Secretary of Defense, the U.S. Transportation Command (USTRANSCOM), the Military Surface Deployment and Distribution Command, and the military service officials to gain an understanding of visibility of SRC I ammunition in their automated information systems, how SRC I ammunition is defined and the elements used to extract data from the automated information systems, and how SRC I ammunition data is entered into their automated information systems. While we identified some issues related to the accuracy and completeness of DTTS data that are described in this report and may affect the reliability of the overall number of SRC I shipments during this time frame, we determined that the data were sufficiently reliable for our purposes of analyzing information about individual shipments in our sample and general trends in the timeliness, accuracy, and completeness of data entry in DTTS. Appendix I discusses our objectives, scope, and methodology in greater detail.

We conducted this performance audit from September 2014 to February 2016 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to

¹⁰We collected on-hand asset data of SRC I ammunition in the continental United States, as of April 30, 2015, as well as the transactional history of SRC I ammunition in the continental United States, between November 1, 2013, and April 30, 2015. We analyzed data from November 1, 2013, to April 30, 2015, to correspond to the time frame we used to select our non-generalizable sample of shipments for review and our non-generalizable sample of data and reports provided by the Military Surface Deployment and Distribution Command from DTTS on SRC I shipments.

obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Background

Overview of SRC I Ammunition Management

Supply Chain Integration, an office under the Office of the Assistant Secretary of Defense for Logistics & Materiel Readiness, Under Secretary of Defense for Acquisition, Technology and Logistics, is the department-wide office responsible for leading the development of DOD supply chain policies as well as improving accountability, visibility, and control of all critical assets, including SRC I ammunition. In addition, the Army has a prominent role in managing SRC I ammunition,¹¹ as the Army procures a majority of the department's ammunition and provides wholesale storage for the other military services at Army depots.¹² The Army depots ship SRC I ammunition owned by the other military services to their respective locations at their request. Also, Army depots conduct semiannual physical inventories of all SRC I ammunition as required of all installations storing SRC I ammunition. SRC I ammunition may also be located—generally in small quantities—at retail locations, such as military service installations, bases, and ammunition supply points.¹³ Each military service has entities responsible for the accountability, physical inventory, and transportation of SRC I ammunition. According to military service ammunition data, the Army, Navy, Marine Corps, and Air Force collectively had approximately 226,000 SRC I missiles and rockets in the continental United States, as of April 30, 2015, as shown in table 1.

¹¹DOD designated the Army as the department's Single Manager for Conventional Ammunition. However, this requirement does not apply to all SRC I ammunition. DOD guidance stipulates that guided missiles retained for management by the military departments, such as the Javelin and the Stinger, do not fall under Single Manager authority.

¹²Wholesale refers to the highest level of organized DOD supply that procures, repairs, and maintains stocks to resupply the retail levels of supply.

¹³Retail refers to the level of inventory below wholesale, and is based on demand or item essentiality.

Table 1: Approximate Quantity of Security Risk Category (SRC) I Ammunition Owned and Located in the Continental United States, by Military Service, as of April 30, 2015^a

Military service	Approximate quantity of SRC I ammunition	Locations in the continental United States^b
Army	139,000	57
Navy	21,500	29
Marine Corps	59,500	17
Air Force	6,000	29

Source: GAO analysis of Department of Defense data. | GAO-16-202

^aThe quantity for SRC I ammunition is referenced as an “approximate” quantity because certain quantities of Special Operations Forces SRC I ammunition are classified information.

^bNumber of locations in the continental United States, by military service ownership, that had SRC I ammunition as of April 30, 2015.

In addition, USTRANSCOM is designated by DOD Directive as the DOD’s single manager for transportation, other than Service-unique or theater-assigned assets and as the DOD Distribution Process Owner.¹⁴ This designation includes transportation of SRC I ammunition. The Military Surface Deployment and Distribution Command, which falls under USTRANSCOM, tracks the movement of SRC I ammunition. Additionally, according to DOD officials, the Military Surface Deployment and Distribution Command coordinates responses to transportation issues of SRC I ammunition while in transit. Table 2 shows key stakeholders and roles in the transportation of SRC I ammunition.

¹⁴Department of Defense Directive (DODD) 5158.04, *United States Transportation Command (USTRANSCOM)* (July 27, 2007).

Table 2: Key Stakeholders and Roles in the Transportation of Security Risk Category (SRC) I Ammunition

Key stakeholders	Role in transportation of SRC I ammunition
U.S. Transportation Command	<ul style="list-style-type: none"> • In coordination with the Under Secretary of Defense for Intelligence and the Department of Defense components, develop, administer, and maintain joint transportation security requirements for the commercial movement of arms, ammunition, and explosives • Develop, publish, and maintain DTR 4500.9-R, Defense Transportation Regulation • Serve as the DOD focal point for the execution of arms, ammunition, and explosives in-transit security by commercial carriers; monitor the performance of such carriers in providing security services to arms, ammunition, and explosives shipments
Military Surface Deployment and Distribution Command	<ul style="list-style-type: none"> • Track SRC I shipments en route using the Defense Transportation Tracking System • According to DOD officials, the Military Surface Deployment and Distribution Command coordinates responses to transportation issues of SRC I ammunition while in transit
DOD components	<ul style="list-style-type: none"> • Ensure shipments are conducted in accordance with DOD policies and regulations • Establish personnel security policy for drivers
DOD installations	<ul style="list-style-type: none"> • Package and secure SRC I ammunition for transport • Record shipment information in relevant databases

Source: GAO analysis of DOD policies and interviews with DOD officials. | GAO-16-202

Policy and Guidance for SRC I Ammunition

DODM 5100.76, *Physical Security of Sensitive Conventional Arms, Ammunition, and Explosives (AA&E)* sets forth DOD policy on the physical security of sensitive conventional AA&E. According to DODM 5100.76, continuous program and policy oversight is required to ensure protection of AA&E within DOD, and DOD components are required to track and conduct physical inventories of SRC I ammunition by serial number.¹⁵ Further, DOD policy requires SRC I ammunition to have a higher level of protection and security than that provided for SRC II

¹⁵A serial number is a unique number designated by DOD in order to track, control or manage maintenance, repair, or supply of tangible items.

through SRC IV conventional ammunition.¹⁶ DOD and the military services have policy and guidance on how to account for, safeguard, conduct physical inventories, adjust if necessary, track, and ship SRC I ammunition within and between services and to contractors for repair.¹⁷ Appendix III provides additional detail on DOD policy and military service guidance relevant to the management of SRC I ammunition.

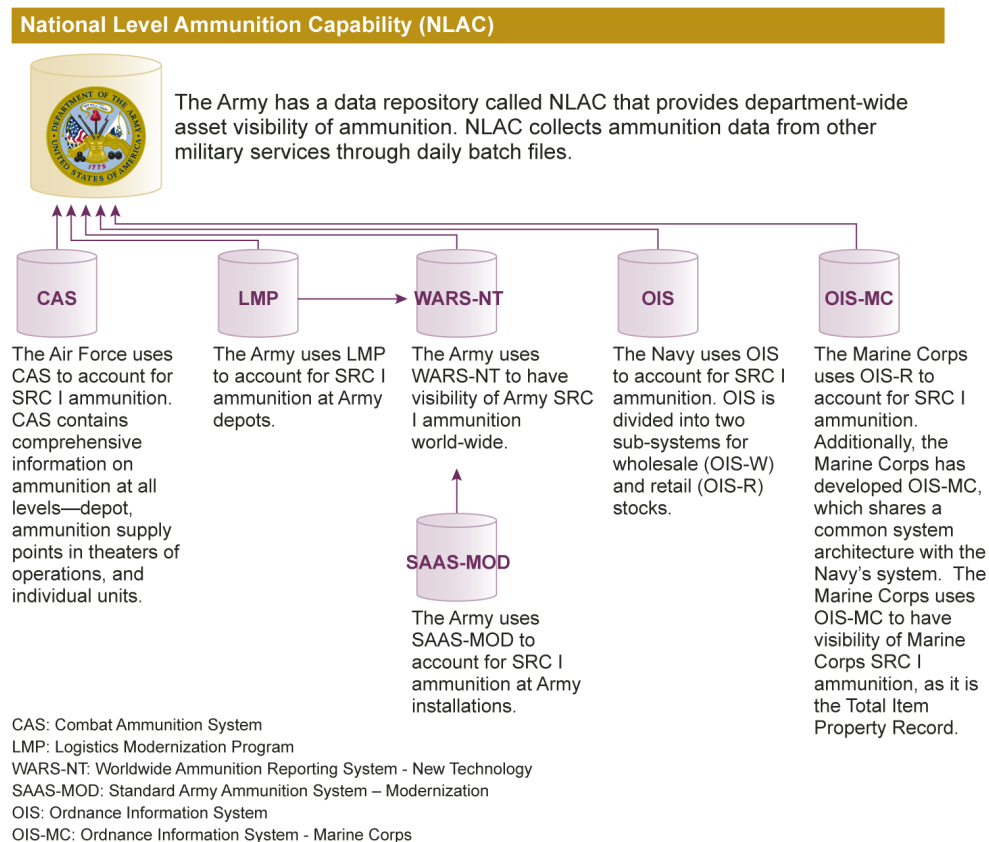
Automated Information Systems for SRC I Ammunition

The military services have several automated information systems for managing accountability and visibility of SRC I ammunition. These automated information systems also maintain various item-specific data such as serial number, production lot number, DOD identification codes, serviceability, reporting location, ownership, quantity, and shipment information. Figure 1 shows the automated information systems.

¹⁶The SRC identification process defines the minimum security requirements to adequately protect identified ammunition. The department also uses Controlled Inventory Item Codes (CIIC) to define an item based on its security classification, sensitivity, or pilferage controls. CIICs are used to identify the extent and type of handling required due to the classified nature or special characteristics of the item for storage and transportation activities. CIIC 1, 5, and 6 denotes SRC I ammunition that are unclassified, secret, and confidential, respectively. AA&E that are not SRC I may be classified as 5 or 6 in order to treat the AA&E with the same level of security and protection as SRC I.

¹⁷DODM 4140.01; DODM 5100.76, (Apr. 17, 2012); and Department of Defense Transportation Regulation 4500.9-R, pt. II, *Cargo Movement* (Sept. 22, 2014).

Figure 1: Department of Defense and Military Services' Automated Information Systems for Security Risk Category (SRC) I Ammunition



Source: GAO analysis of Department of Defense (DOD) information. | GAO-16-202

Note: Wholesale refers to the highest level of organized DOD supply that procures, repairs, and maintains stocks to resupply the retail levels of supply. Retail refers to the level of inventory below wholesale, and is based on demand or item essentiality.

The department is in the final stages of evaluating various automated information systems, including NLAC, to be designated as the DOD-wide authoritative source of data for conventional ammunition, including SRC I ammunition. DOD's evaluation to select one authoritative information system for conventional ammunition comes in response to our March 2014 recommendation that the department designate an authoritative

source of data on conventional ammunition,¹⁸ which includes SRC I ammunition. Also, the evaluation is in response to a congressional mandate to issue department-wide guidance by September 2015 to designate an authoritative source of data for conventional ammunition.¹⁹ According to OSD officials, the to-be-designated visibility system will serve as a repository of ammunition data collected through regular data feeds from the military services' automated information systems.

GAO's Prior Work on SRC I Ammunition

Since 1994, we have issued several reports about the management of SRC I ammunition, focusing on serial-number registration, physical inventories, and transportation issues. In 1994, we found that while the Navy and the Marine Corps began controlling missiles by serial number in 1990 and 1992, respectively, the Army was working on obtaining control of SRC I missiles by serial number. Further, we found that the military services were not regularly conducting physical inventories of SRC I missiles and we made recommendations to strengthen inventory accountability, which the department concurred with and implemented. In our September 1997 report, we found the military services had different procedures and requirements for maintaining oversight of SRC I rockets. Specifically, we found that the Marine Corps maintained oversight and visibility of its weapons by serial number, whereas the Army and the Navy managed their SRC I rockets by production lot and quantity. DOD concurred with our recommendation to manage SRC I rockets by serial number and reissued DOD policy in 2000.²⁰ In our 2000 report, we found internal controls weaknesses at an Army ammunition depot that resulted in a loss of accountability and control over SRC I rockets. For example, serial number control of SRC I rockets was lost at the time of shipment from the contractor because serial numbers listed on receiving reports that accompanied shipments did not correspond to the actual items and quantities of the respective shipments.

¹⁸GAO, *Defense Logistics: Actions Needed to Improve Department-Wide Management of Conventional Ammunition Inventory*, [GAO-14-182](#) (Washington, D.C.: Mar. 31, 2014).

¹⁹Carl Levin and Howard P. "Buck" McKeon National Defense Authorization Act for Fiscal Year 2015, Pub. L. No. 113-291, § 352(a) (Dec. 19, 2014).

²⁰In 2012, DOD updated its Department of Defense Manual 5100.76, *Physical Security of Sensitive Conventional Arms, Ammunition, and Explosives (AA&E)* (Apr. 17, 2012).

In March 2014, we reported on DOD's management of conventional ammunition, and found, among other things, some limitations of the military services' use of automated information systems that affected their ability to facilitate efficient management of conventional ammunition. We found that NLAC, the department-wide repository of ammunition data, had limitations in providing visibility of ammunition and recommended that the department select an authoritative source of department-wide ammunition data to improve DOD's ability to provide total asset visibility over conventional ammunition. DOD concurred and stated that it would assess the alternatives and designate the appropriate solution by the fourth quarter of fiscal year 2015. Also, we recommended that DOD identify and implement internal controls, consistent with federal internal control standards, that would provide reasonable assurance that NLAC collects comprehensive, accurate data from other service ammunition systems. DOD concurred and stated in its agency response to our report that the Army updated the performance work statement for NLAC to include analyzing new data sources to identify improved system interfacing that will improve data accuracy, completeness, quality assurance, and auditability. For more details of our findings, recommendations, and the status of actions taken by DOD relating to DOD's management of SRC I ammunition, see appendix IV.

Military Services Have Maintained Accountability of SRC I Ammunition at Sampled Locations, but Gaps Exist in Some Service-Level Guidance and Procedures for How SRC I Ammunition Is Accounted for Across Locations

The military services have maintained accountability of SRC I ammunition at 11 sampled locations in the continental United States;²¹ however, we identified gaps in some service-level guidance and procedures for how SRC I ammunition is accounted for across locations. We found that the Air Force does not track SRC I ammunition by serial number but has plans to revise its guidance. Also, we found Air Force procedures have not maintained accountability for items owned by other services and stored at Air Force locations. Further, the military services generally recorded shipment and receipt in their accountability systems, but the receipt was not always recorded in a timely manner. Finally, we found that Army processes and information systems do not provide full accountability for in-transit items.

²¹We collected a non-generalizable sample of SRC I ammunition items at 11 selected locations. At each location, we visited storage buildings holding SRC I ammunition, and recorded a selection of SRC I ammunition items from different pallets to include a range of SRC I items as well as items from recent shipments, and documented identifying information including serial and production lot number. We then conducted comparative analysis of this non-generalizable sample against the military services' automated information systems. For the Army we used LMP, SAAS, and WARS-NT; for the Navy and Marine Corps we used OIS-W, OIS-R, and OIS-MC; and for the Air Force we used CAS.

Military Services Have Maintained Accountability of SRC I Ammunition at Sampled Locations and Conducted Physical Inventories

We found that the military services have maintained accountability in their automated information systems of SRC I ammunition at the 11 sampled locations we reviewed. DOD policy calls for continuous program and policy oversight to ensure protection of AA&E, to include SRC I ammunition, within DOD.²² Likewise, military service guidance details accountability of AA&E, including maintenance of records.²³ We found that, for our sample of 616 SRC I ammunition items, 612 of the 616 records matched²⁴ the military services' automated information systems²⁵ and the remaining 4, although not recorded as required, were accounted for by service officials. Additionally, as part of our sample, we observed SRC I ammunition that was being readied for rapid deployment, as shown in figure 2, and documented the serial number and other identifying information, and verified the information in the Army's systems.

²²DODM 5100.76, *Physical Security of Sensitive Conventional Arms, Ammunition, and Explosives (AA&E)* (Apr. 17, 2012).

²³Army Regulation 190-11, *Military Police: Physical Security of Arms, Ammunition, and Explosives* (Sept. 5, 2013); Air Force Policy Directive 21-2, *Maintenance: Munitions* (Dec. 17, 2012); Marine Corps Order 5530.14A, *Marine Corps Physical Security Program Manual* (June 5, 2009); Department of the Navy OPNAV Instruction 5530.13C, *Department of the Navy Physical Security Instruction for Conventional Arms, Ammunition, and Explosives (AA&E)* (Sept. 26, 2003).

²⁴We verified the Army, Navy, and Marine Corps SRC I ammunition items by serial and lot number. We verified the Air Force SRC I ammunition items by lot number and quantity.

²⁵For the Army we used LMP, SAAS, and WARS-NT; for the Navy and Marine Corps we used OIS-W, OIS-R, and OIS-MC; and for the Air Force we used CAS.

Figure 2: Security Risk Category I Ammunition Ready for Rapid Deployment and Verified in Army Systems



Source: GAO. | GAO-16-202

Additionally, we found that, in accordance with DOD policy and military service guidance and at required frequencies, the military services conducted physical inventories of SRC I ammunition to ensure accountability at 22 selected military service locations in the continental United States.²⁶ We analyzed inventory memorandums from all Army depots storing SRC I ammunition, as well as selected military service

²⁶We collected a non-generalizable sample of physical inventory completion memos from 22 military service locations, including 7 Army depots, 5 military service locations we visited, and 10 additional Air Force locations to determine whether physical inventories were being conducted in accordance with DOD policy and military service guidance and at required frequencies. We randomly selected some locations and selected other locations based on additional factors such as the range in quantity and type of SRC I in storage and recent shipments. Appendix I discusses our objectives, scope, and methodology in greater detail.

locations, and found that the physical inventories were recorded as being conducted.²⁷ Inventory personnel stated there were no delays or challenges in completing the physical inventories of SRC I ammunition because of sequestration or other budgetary concerns.

Further, during our review, we identified instances in which the Navy and Army had taken actions to enhance the accountability of their physical inventories.

- First, we found that the Army, Marine Corps, and Air Force certify completion of the physical inventory of SRC I ammunition through a signed memorandum. According to Navy officials, Navy policy does not require certification through a signed memorandum. Rather, the Navy OIS system captures a Date of Last Inventory; however, Navy officials acknowledged they did not have a business process to use this data point. After we identified this, Navy officials took action to begin developing a business process to identify late inventories.
- Second, according to Navy officials, in an effort to better align with DOD policy, the Navy revised guidance²⁸ in April 2015 to align with requirements in DODM 5100.76 so it would reflect specific intervals for completing physical inventories: monthly for unit levels and semiannually for non-unit level.
- Third, we examined the physical inventory process at a contractor location.²⁹ We found the contractor had completed physical inventories of SRC I missiles in its custody, although the contract did not specify the frequency or approach for conducting physical inventories. When we asked Army officials to provide documentation from the contractor verifying that physical inventories were completed, the officials acknowledged they do not receive verification from the contractor upon completion of physical inventories, but stated they

²⁷DOD policy requires 100 percent annual inventory at the depot-level; 100 percent semiannual inventory by serial number at the installation-level (post, camp, base, or station); and 100 percent monthly physical count by serial number at the unit level. DODM 5100.76, encl. 8 (Apr. 17, 2012). The military services' implementing guidance provides additional details on the nature and frequency of these inventories.

²⁸Department of the Navy NAVSUP P-724, *Conventional Ordnance Stockpile Management Policies and Procedures* (Apr. 2015).

²⁹We examined the physical inventory process at a contractor location because SRC I ammunition items are in the contractor's custody while at the contractor's facility for repair, maintenance, or upgrade.

have taken action and are evaluating methodology to ensure they receive documentation to verify that the contractor has completed physical inventories in the future.

Air Force, Army, and Marine Corps Have Gaps in Some Service-Level Guidance and Procedures for How SRC I Ammunition Is Accounted for Across Locations

Air Force Does Not Track SRC I Ammunition by Serial Number but Has Plans to Do So

We found that the military services, except the Air Force, track SRC I ammunition by serial number³⁰ in their respective accountability systems, and the Air Force has plans to revise its guidance regarding tracking. The Air Force tracks SRC I ammunition in its accountability system, CAS, by quantities within production lot numbers.³¹ CAS does not have the capability to track SRC I ammunition by serial number because CAS does not have a field to enter serial numbers. With this limitation, the Air Force also cannot conduct physical inventories of SRC I ammunition by serial number. We found in September 1997 that the military services did not uniformly track SRC I rockets by serial number and recommended that the services manage SRC I rockets by serial number to have total visibility over the numbers and locations of rockets. The department concurred and reissued policy in 2000 to require DOD components to track and conduct physical inventories of SRC I ammunition by serial number. However, Air Force guidance reissued in June 2015 recognizes that CAS cannot track SRC I ammunition by serial number and will instead track by quantities within production lot numbers.

³⁰At the time of our review, the Army and Navy tracked one type of rocket by quantities within production lot numbers. This rocket was produced prior to serial number registration requirements and most have not been retroactively serialized, as they are being phased out of inventory.

³¹Ammunition lot number, also known as production lot number, is an alpha-numeric designator systematically assigned to each ammunition lot at the time of manufacture or assembly that uniquely identifies a particular ammunition lot. The number contains information about the manufacturer, production date, and order in which the SRC I ammunition was produced.

Air Force Policy Does Not
Require Accountability in Its
System of Record for Items
Owned by Other Services and
Stored at Air Force Locations

Air Force officials have recognized that they are not meeting DOD requirements for tracking SRC I ammunition by serial number, but are in the process of modernizing CAS to track by serial number. According to Air Force officials, the Air Force previously focused on the development of another enterprise information system to track, among other things, ammunition; however, the Air Force cancelled the system and is now in the process of upgrading CAS.³² The Air Force provided supporting documentation to confirm plans for CAS modernization by 2017. According to Air Force officials, this upgrade will modernize the system through technological upgrades that also includes provisions to improve auditability of CAS. Upon upgrading CAS to track SRC I ammunition by serial number, Air Force officials plan to reissue Air Force guidance to ensure that the Air Force tracks and conducts physical inventories of SRC I ammunition by serial number. If the Air Force does not modify CAS to include serial numbers, the Air Force will continue to lack serial number traceability of SRC I ammunition and will not meet DOD requirements. By tracking SRC I ammunition by quantities within production lot numbers, the Air Force will not have detailed information to support life-cycle traceability requirements, such as a transactional history including inventory, maintenance, repair, service records and/or supply, for each serial number, which may affect their ability to investigate instances of lost or stolen SRC I ammunition.

Air Force policy does not require accountability in its system of record for items owned by other services and stored at Air Force locations. We identified 55 SRC I ammunition items owned by the Army or Marine Corps that were in the physical custody of the Air Force, but the Air Force did not maintain accountability of these items in its system of record—CAS.³³ DOD policy requires that the DOD component that has physical custody of materiel in storage maintain accountability for that materiel in the component's system of record, regardless of which DOD component

³²GAO, *DOD Business Transformation: Air Force's Current Approach Increases Risk That Asset Visibility Goals and Transformation Priorities Will Not Be Achieved*, [GAO-08-866](#) (Washington, D.C.: Aug. 8, 2008).

³³We identified these 55 items because we were unable to locate receipts for certain shipments in the Air Force's system of record when we reviewed it for our analysis of the timeliness of receipt of shipments of SRC I ammunition. These 55 items reflect a minimum number of items because the Air Force did not record all such items in its accountable record. The number is non-generalizable to the overall universe of SRC I items, but provides insights on how the Air Force manages items in its physical custody that are owned by another service.

owns the materiel.³⁴ However, we found that Air Force guidance does not require personnel to maintain accountability in its system of record for SRC I ammunition items owned by other services but in the physical custody of the Air Force, and instead allows ammunition owned by other services to be tracked in a “non-accountable” program within CAS.³⁵ This non-accountable program tracks information such as net explosive weight and asset visibility; however, according to Air Force officials, the non-accountable program does not maintain an audit trail or history that would document receipt and provide a record of how the SRC I ammunition was managed while at the Air Force location. We found that, consistent with DOD policy, Army, Navy, and Marine Corps guidance generally requires that accountability for ammunition in the physical custody of the service be maintained in the service’s system of record, regardless of which service owns the ammunition.³⁶

Accountability for the 55 SRC I ammunition items we identified that were owned by the Army or Marine Corps that were shipped to and in the physical custody of the Air Force was not maintained in any service’s system of record while at the Air Force location. These items included:

- 40 Marine Corps-owned SRC I ammunition items that were stored at an Air Force location for approximately 11 months. Marine Corps officials were able to provide evidence that these items were shipped back to a Marine Corps location after the 11 months of storage at the Air Force location.

³⁴DODM 4140.01, *Supply Chain Materiel Management Procedures: Delivery of Materiel*, Vol. 5 (Feb. 10, 2014).

³⁵Air Force Instruction 21-201, *Munitions Management* (June 3, 2015).

³⁶See Army Regulation 700-100, *Munitions Support for Joint Operations* (Mar. 26, 2014); Marine Corps Order 8012.1, *Munitions Support for Joint Operations* (Mar. 26, 2014). Army Regulation 700-100/MCO 8012.1 is a joint policy that applies to both the Army and Marine Corps. Army officials told us that they interpret the policy to apply to all situations in which they provide retail ammunition support to other services, while a Marine Corps official told us that some within the Marine Corps interpret this policy to apply only to deployed operations. Marine Corps officials stated that their practice is to maintain accountability for ammunition owned by other services in their system of record, and we did not identify any instances of ammunition owned by other services but stored at Marine Corps locations not tracked in the Marine Corps’ system of record. However, a Marine Corps official acknowledged that the guidance could be clarified to confirm that it applies to situations beyond joint operations, and told us that as of October 2015 the Marine Corps planned to incorporate updated language into Marine Corps guidance.

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- 5 Army-owned AT4 anti-armor weapons that were shipped to an Air Force installation for Army training purposes. According to Air Force officials, these SRC I ammunition items have been expended, but Army and Air Force officials did not provide us related documentation.
 - 10 additional Army-owned AT4 anti-armor weapons that were shipped to an Air Force installation for Army training purposes. For these 10 items, Army information systems show that the items were expended and turned in 2 and a half months after shipment, but Army and Air Force officials did not provide us documentation of accountability for the assets during the time they were in Air Force custody.

Air Force officials stated that these ammunition items were managed on the non-accountable program because the ammunition was Marine Corps or Army property of which the Air Force did not intend to take ownership. According to Air Force officials, the assets had been deleted once the items were removed from the munitions storage area. Air Force officials could not provide us key information about these shipments, such as the date the shipments were accepted into the munitions storage area, to whom the ammunition items were issued, or when the ammunition items were issued because they said that information was no longer available in the non-accountable program. Marine Corps and Army officials told us that the ammunition items would likely have been managed by the unit—for example, by using a separate system or a manual process such as a spreadsheet. However, they did not provide a copy of the document that was used.

Air Force officials updated guidance in June 2015 to place more restrictions on the use of the non-accountable program, including for SRC I ammunition items, but the guidance continues to allow the use of the non-accountable record when the Air Force does not intend to take ownership of the ammunition. According to Air Force officials, the decision of whether to maintain accountability for ammunition owned by other services in CAS depends on the operational situation and tactical environment. For example, for 20 additional SRC I ammunition items we reviewed that were owned by the Army but in the physical custody of the Air Force for testing purposes, Air Force officials maintained accountability in CAS and were able to provide transaction history. Officials told us that the Air Force is in the process of updating CAS to facilitate tracking of SRC I ammunition by owner and will move toward having most assets in CAS. However, if the Air Force does not revise guidance to clarify that accountability for all SRC I ammunition items in the Air Force's custody—regardless of ownership—should be maintained in the Air Force's system of record, both the Air Force and the owning

Army Depot and Marine Corps
Guidance Do Not Specify a
Time Frame for Receipting
Shipments of SRC I
Ammunition

service will lack a record of receipt and management of the SRC I ammunition while at the Air Force location; also the owning service will not have full assurance that accountability was maintained.

We found that the military services generally recorded shipment and receipt of SRC I ammunition in their accountability systems; however, we found that existing Army depot and Marine Corps guidance do not specify a time frame for receipting shipments of SRC I ammunition. Marine Corps officials told us they generally adhere to the Navy's guidance, which requires receipting of shipments within 1 business day, but Marine Corps installations are not required to follow that guidance. DOD policy emphasizes the need for continuous oversight to ensure protection of sensitive conventional arms, ammunition and explosives given that if these items are left vulnerable they have the potential to jeopardize the safety and security of personnel, activities, missions, and installations worldwide. DOD policy delegates to DOD component heads the responsibility to implement the procedures of DODM 5100.76, *Physical Security of Sensitive Conventional Arms, Ammunition, and Explosives (AA&E)* (Feb. 28, 2014) and develop supplemental guidance for the protection of arms, ammunition, and explosives in accordance with DODI 5100.76 *Safeguarding Conventional Arms, Ammunition, and Explosives (AA&E)* (May 20, 2010).

However, the military services varied in the extent to which they have developed guidance that addresses the time frame within which SRC I ammunition should be receipted on the accountable record. Air Force guidance specifies SRC I ammunition be receipted on the accountable record immediately; Army guidance for retail locations specifies within 24 hours; and Navy guidance specifies within 1 business day. In contrast, Army, at the depot-level, and the Marine Corps have not finalized guidance that addresses the required time frame for receipting SRC I ammunition.³⁷ In our review, we found that, generally, for those services with guidance, SRC I ammunition was receipted on the accountable record within specified time frames, while the services without guidance were more likely to receipt SRC I ammunition days after arrival, and in some instances, more than 5 days after arrival.

³⁷As indicated in DOD comments included in Appendix V, both the Army and Marines will be updating their guidance in 2016 to address SRC I receipt time.

In a non-generalizable sample of 104 shipments that we reviewed, we found the record of shipment in the shipper's accountability system.³⁸ For 100 of the 104 shipments, we found a corresponding receipt in the receiver's accountability system. Of the four shipments for which we did not find a corresponding receipt, two were shipments of Army-owned items to the Air Force locations that the Air Force did not maintain in its accountable system because it did not own the items, and other two were shipments of Navy-owned SRC I items to a contractor for inspection.³⁹ However, we found that approximately 20 percent of shipments of SRC I ammunition in our non-generalizable sample were not receipted within the time frames stated in military service policy or described as standard practice by military service officials.

Of the 104 shipments we reviewed, we were able to compare receipt information to arrival time for 99 shipments, and we found that 21 of these 99 shipments were not receipted on the services' accountability system within 2 business days after the arrival of the shipment.⁴⁰ All of the military services either have documented policy that requires receipting SRC I ammunition on the accountable record within 1 business day or less or told us that they generally adhere to that time frame, but in our analysis, we allowed for 2 business days because military services' information systems may take an additional business day to record transactions. Table 3 provides additional details of receipting time frames for each service.

³⁸This non-generalizable sample of 104 shipments is comprised of shipments to or from locations that we visited and was selected to reflect shipments to or from a variety of military services, locations, and location types.

³⁹We did not review the contractor's accountability system because, according to Navy officials, the contractor does not have a current contract with the Navy for production or repair of SRC I ammunition items.

⁴⁰In addition to the four shipments for which we could not identify receipt information in an accountable system, we were unable to compare receipt information in the accountable record to the arrival date for an additional shipment to an Army Depot that we could not locate in DTTS.

Table 3: Time Frames of Receipts for Security Risk Category I Ammunition Shipments in Select Locations for a Non-Generalizable Sample

Service	Total shipments in GAO sample	Shipments receipted within 2 business days of arrival	Shipments receipted 2 to 5 business days after arrival	Shipments receipted more than 5 business days after arrival	Shipments with no receipt found
Air Force	6	4	0	0	2
Army (Depot)	21	8	3	9	1 ^a
Army (Retail) ^b	28	26	2	0	0
Contractor	2	0	0	0	2
Marine Corps	30	25	3	2	0
Navy	17	15	1	1	0
Total	104	78	9	12	5

Source: GAO analysis of Department of Defense shipping documents and data. | GAO-16-202

^aThis shipment was receipted by the Army depot but the shipment and its corresponding arrival date could not be located in the Defense Transportation Tracking System and therefore we could not compare the receipting date to the arrival date.

^bRetail refers to the level of inventory below wholesale, and is based on demand or item essentiality.

Air Force locations and Army retail locations are required by service guidance to adhere to established time frames for receipting SRC I ammunition, and all shipments we reviewed at Air Force locations for which we located receipts and all but 2 shipments we reviewed at the Army retail locations were receipted on the accountable record within 2 business days, as shown in table 3 above. In contrast, we found that the Army, at the depot-level, and the Marine Corps have not finalized guidance that addresses the required time frame for receipting SRC I ammunition. As identified in table 3, 12 of 21 shipments to Army depots and 5 of 30 shipments to Marine Corps locations were receipted more than 2 business days after arrival. An Army official told us that depots are required to receipt inbound shipments within 24 hours based on a policy letter issued prior to 2010, and that this requirement has also been in draft guidance since 2013, but that the guidance has not yet been finalized. Similarly, the Marine Corps does not have a receipting timeframe for SRC I ammunition in its guidance. Marine Corps officials told us they generally adhere to the Navy's guidance, which requires receipting of shipments within 1 business day, but Marine Corps installations are not required to follow that guidance. Marine Corps officials told us that as of October 2015 they were in the process of incorporating a required time frame for receipting SRC I ammunition in Marine Corps guidance but did not provide a specific time frame for revising the guidance. Until the Army, at the depot-level, and the Marine Corps finalize and implement guidance that addresses the required time

Army Processes and
Information Systems Do Not
Provide Full Accountability for
In-Transit Items

frame for receipting SRC I ammunition, Army and Marine Corps officials will not have the data they need to help assure accountability for all shipped SRC I ammunition.

The Air Force and Navy have policies regarding maintaining in-transit accountability for shipped SRC I ammunition that generally adhere to DOD requirements, and the Marine Corps has planned system updates to adhere to requirements; however, the Army's policy and processes do not fully adhere. DOD policy requires that the DOD component directing materiel into an in-transit status will retain accountability within the logistics records for that materiel until there is a formal acknowledgment of receipt.⁴¹ The Air Force and Navy maintain in-transit tables in their accountability systems that can be used to track ammunition that has been shipped but not yet receipted. Additionally, the Navy requires all in-transit materiel remain accountable to the issuing activity until properly receipted or resolved, and Air Force policy requires that each receiver acknowledge—orally or in writing or through other automated means—that the shipped SRC I items were received, and the date the assets were received.⁴²

The Marine Corps has planned system updates to adhere to DOD requirements to maintain accountability for in-transit SRC I ammunition items. According to Marine Corps officials, the Marine Corps tracks Marine Corps-owned assets in transit until formal acknowledgement of receipt in its OIS-MC system, but Marine Corps ammunition supply points do not maintain accountability for SRC I ammunition in transit to another service. Marine Corps officials told us that the system of record used by Marine Corps ammunition supply points is being upgraded in fiscal year 2016 to facilitate compliance with in-transit requirements.

The Army does not maintain accountability for all in-transit items within the logistics records for that materiel until there is a formal acknowledgement of receipt. Army regulations require the Joint Munitions Command to track shipments of SRC I ammunition from depot to depot,

⁴¹DODM 4140.01, *DOD Supply Chain Materiel Management Procedures: Management of Critical Safety Items, Controlled Inventory Items Including Nuclear Weapons-Related Materiel*, vol. 5 (Feb. 10, 2014).

⁴²Department of the Navy P-724, *Conventional Ordnance Stockpile Management Policies and Procedures* (Apr. 30, 2015), and Air Force Instruction 21-201, *Munitions Management* (June 3, 2015).

depot to unit, or unit to depot using DTTS and to monitor shipping documents and receipts⁴³ to ensure they are closed or posted in a timely manner. However, officials from the Joint Munitions Command told us they do not receive confirmation of receipt from some entities, including other military services and some contractors. The Army's systems do not maintain in-transit tables that show items that have been shipped out of one location and are due in to another. When the Army ships SRC I ammunition from depots or retail locations, it drops those items from its accountable systems without a requirement to confirm or document that the shipment was received.⁴⁴ For SRC I ammunition shipments to other Army locations, the Army retains visibility of shipments by maintaining a record of SRC I ammunition items that have been shipped in its Worldwide Ammunition Reporting System-New Technology (WARS-NT) database, and matches up shipped items and receipted items by serial number to confirm that the items were received. However, for shipments to other military services, Army officials told us that the Army clears shipped items from its WARS-NT records upon receiving confirmation that the items were shipped.⁴⁵

Army officials told us that limitations in their depot-level system, called LMP, and in their retail-level system, called the Standard Army Ammunition System, prevent them from maintaining full accountability for in-transit items, and that this deficiency, which affects all classes of

⁴³All documentation is kept on file at the accountable supply distribution activity. This is currently a manual process, monitoring multiple systems used by the accountable supply distribution activity and the depot or receiving activity.

⁴⁴In March 2014, we reported that LMP's lack of receipt confirmation for shipped ammunition items results in a gap in accountability and visibility of in-transit ammunition. We did not make a specific recommendation about this issue, although we recommended generally that the Army establish a plan for incorporating ammunition-related functionality into LMP. As of November 2015, the recommendation had not been implemented, although DOD reported in September 2014 that future updates to LMP would include some additional ammunition-related functionality. See GAO, *Defense Logistics: Actions Needed to Improve Department-Wide Management of Conventional Ammunition Inventory*, [GAO-14-182](#) (Washington, D.C.: Mar. 31, 2014).

⁴⁵In addition to maintaining accountability for ammunition owned by the Army, the Army is required to maintain custodial accountability for ammunition that it manages for other services as the Single Manager for Conventional Ammunition until receipt by the military services or U.S. Special Operations Command accountable officer at the first retail point or consumer level. See DODI 5160.68, *Single Manager for Conventional ammunition (SMCA): Responsibilities of the SMCA, the Military Services, and United States Special Operations Command (USSOCOM)*, (Dec. 29, 2008).

supply, has been identified by the Army since 2012 at both the depot and retail level but that a solution has not yet been developed because, in part, of technical complexities. However, Army officials have not evaluated or identified actions that the Army could take to enable it to retain accountability for in-transit items until acknowledgment of receipt. Unless the Army evaluates and identifies actions to retain accountability for in-transit items until acknowledgement of receipt, the Army will not have a path forward to ensure that accountability for in-transit SRC I ammunition was maintained and the ammunition was received, thereby creating a potential gap in accountability and visibility of this ammunition.

The Military Services Have Not Consistently Ensured Timely, Complete, and Accurate Information to Maintain Full Visibility of SRC I Ammunition

The military services have not consistently ensured timely, complete, and accurate information to maintain full visibility of SRC I ammunition in the continental United States. We found the Army has not ensured timely and complete information of SRC I ammunition returned to the contractor, but has begun to take action to ensure reporting to WARS-NT to improve visibility. We also found the Army had inaccurately categorized two variants of SRC I rockets, but took immediate action to add the rocket variants to the catalog listing of SRC I ammunition. Further, we identified examples of the military services not entering timely information in the Defense Transportation Tracking System (DTTS) on shipments to aid Military Surface Deployment and Distribution Command tracking by satellite, and of the services entering inaccurate or incomplete data about shipments of SRC I ammunition, which affects visibility of SRC I ammunition in transit.

The Army Did Not Have Timely, Complete, and Accurate Information of All Its SRC I Ammunition, but Has Taken Action to Improve Visibility

We found that the Army did not have timely, complete, or accurate information of its SRC I ammunition, but has taken action in two areas in order to improve visibility. In one area, we found Army officials had not ensured timely and complete information of SRC I ammunition returned to the contractor for repair, upgrade, maintenance, or testing and had not followed guidance for maintaining visibility of SRC I missiles. While the Army's WARS-NT system, which is the Army's official system for tracking SRC I ammunition, provided visibility of SRC I missiles located at the contractor facility, WARS-NT did not have timely or complete records to show visibility of all SRC I missiles at the contractor's site. In January 2015, we identified an October 2014 shipment of 58 SRC I missiles sent from an Army depot to a contractor facility for repair. Although we confirmed during our site visit that the 58 missiles were located at the contractor's facility and that the contractor's automated information system accounted for the missiles, we found that WARS-NT did not have

timely or complete data about the shipped 58 SRC I missiles. After we identified the discrepancies in records systems, Army officials acknowledged that while it is an Army requirement for a contractor to report the receipt of these items to the WARS-NT program office, this requirement was not included in the contract. Army officials are taking action and are coordinating a modification to the contract to require the prime contractor to routinely report receipt of shipments to WARS-NT per Army regulation. In the second area, we found that WARS-NT had inaccurately categorized two variants of SRC I rockets. Specifically, we found 55 SRC I ammunition items—variants of the M72 rocket—were not included in the WARS-NT system as SRC I ammunition items. After we noted the omission of the rocket variants in WARS-NT as SRC I ammunition, Army officials took action in August 2015 to add the rocket variants to the catalog listing of SRC I ammunition and in the WARS-NT system as SRC I ammunition.

The Military Services Used Satellite Tracking for Shipments of SRC I Ammunition in Our Sample, but Did Not Consistently Provide Timely, Complete, and Accurate Information to Aid Tracking

We found that the military services, as required by DOD regulation, used satellite tracking for nearly all of the 104 shipments of SRC I ammunition that we reviewed;⁴⁶ however, the services did not always enter timely, accurate, and complete information that is required to aid tracking. The Defense Transportation Regulation requires satellite tracking of shipments of SRC I ammunition via the Defense Transportation Tracking System (DTTS).⁴⁷ We found that 103 of 104 shipments of SRC I ammunition in a non-generalizable sample we reviewed were tracked in DTTS using satellite monitoring.⁴⁸ DTTS, which is maintained by the Military Surface Deployment and Distribution Command, which falls under the U.S. Transportation Command, provides satellite tracking capability of shipments of sensitive conventional arms, ammunition and explosives, including SRC I ammunition items, from the point of departure until the point of arrival. However, we observed problems with the timeliness,

⁴⁶This non-generalizable sample of 104 shipments is comprised of shipments to or from locations that we visited and was selected to reflect shipments to or from a variety of military services, locations, and location types.

⁴⁷Department of Defense Transportation Regulation 4500.9-R, pt. II, *Cargo Movement* (Sept. 22, 2014).

⁴⁸We were unable to confirm that one shipment from a Marine Corps ammunition supply point was tracked with satellite monitoring because the shipment appeared to have been omitted from the bill of lading that accompanied the truck transporting the ammunition, and DTTS tracks shipments by bill of lading.

accuracy, and completeness of the data provided by the military services in DTTS,⁴⁹ which limited the information available to aid the Military Surface Deployment and Distribution Command's tracking of these shipments and its ability to facilitate responses to any incidents, if necessary.

Timeliness of Shipping Entries

We found that the military services did not always enter timely information in DTTS on SRC I ammunition shipments to aid the Military Surface Deployment and Distribution Command's tracking of SRC I ammunition by satellite. We observed timeliness problems both at the point of shipment departure and the point of shipment arrival.

- Shipment departure: The Defense Transportation Regulation specifies that the military services' shipping offices must enter shipping information in DTTS prior to carrier departure. Data provided by the Military Surface Deployment and Distribution Command showed that information about 93 of 1,008 shipments identified as containing SRC I items between November 1, 2013, and April 30, 2015, were not in DTTS at the time of carrier departure.⁵⁰ According to Military Surface Deployment and Distribution Command's data, information was entered more than 1 hour after carrier departure for 68 of the 93 shipments. On average, information about these 68 shipments was not entered until approximately 8 hours after departure. According to Military Surface Deployment and Distribution Command officials, when information is not entered in the DTTS at the time of carrier departure, the command is still notified that these shipments are on

⁴⁹We analyzed data from November 1, 2013, to April 30, 2015, to correspond to the time frame we used to select our non-generalizable sample of shipments for review. The Military Surface Deployment and Distribution Command reported 1,008 total SRC I shipments between November 1, 2013, and April 30, 2015.

⁵⁰We analyzed data from November 1, 2013, to April 30, 2015, to correspond to the time frame we used to select our non-generalizable sample of shipments for review. According to the Defense Transportation Regulation, SRC I items include those items with a controlled inventory item code of 1, 5, or 6, and include arms, ammunition, and explosives, as well as certain other items, such as certain tactical vehicles. Military Surface Deployment and Distribution Command officials noted that it is not possible to reliably exclude non-ammunition items from DTTS data because information entered by shippers to designate the type of item being shipped may be missing or inaccurate. In addition, while we identified some other issues related to the accuracy and completeness of DTTS data discussed in this report that may affect the reliability of the overall number of SRC I shipments during this time frame, we determined that the data were sufficiently reliable for our purposes of analyzing information about individual shipments in our sample and general trends in the timeliness, accuracy, and completeness of data entry in DTTS.

the road when drivers turn on their satellite monitoring devices. However, the command does not have information about the contents of these shipments and therefore DTTS is unable to provide essential information to initiate rapid emergency response to in-transit accidents or incidents to minimize effect. Additionally, if a driver did not turn on the satellite monitoring device, the command would not be alerted to that situation since it would be unaware that a shipment was expected.

- Shipment arrival: The Defense Transportation Regulation requires entry into DTTS of confirmation of receipt of SRC I shipments within 2 hours of the offloading of each shipment. Data provided by the Military Surface Deployment and Distribution Command for SRC I shipments between November 1, 2013, and April 30, 2015, showed that 572 of 992 shipments to the military services containing SRC I items were not confirmed within the calendar month that they arrived.⁵¹ Further, as of April 30, 2015, Military Surface Deployment and Distribution Command data shows a backlog of 364 SRC I shipments to the military services dating as far back as November 2011 that had not been confirmed. According to Military Surface Deployment and Distribution Command officials, shipments that are not confirmed in DTTS as required hinder their ability to ensure successful transportation of SRC I ammunition because it requires the command to rely solely on the carrier to confirm that SRC I ammunition has been delivered.

The Military Surface Deployment and Distribution Command and the military services have taken steps to improve the timeliness of data in DTTS. The Military Surface Deployment and Distribution Command works with designated military service representatives on transportation issues, and provides reports to the military representatives on timeliness of confirmation of individual SRC I shipments and SRC I shipments from prior months that have not been confirmed. Military Surface Deployment and Distribution Command officials also told us that they have been working to try to reduce systemic causes of shipments not being in DTTS at the time of shipment departure, such as system interface delays. Similarly, military service representatives told us that they have also tried

⁵¹The Military Surface Deployment and Distribution Command reported 1,008 total SRC I shipments between November 1, 2013, and April 30, 2015, of which 992 were identified as having been shipped to a military service location. We analyzed whether confirmation was provided during the calendar month of arrival because data provided by the Military Surface Deployment and Distribution Command did not allow us to compare confirmation time to exact offload time.

to address issues of timeliness of reporting in DTTS. For example, the Army issued guidance in May 2014 reminding transportation offices and ammunition supply points of their responsibilities with regard to entering information in DTTS.

However, both Military Surface Deployment and Distribution Command officials and the military service representatives acknowledged their collaboration could be improved to determine what information is needed to improve the military services' oversight of the timeliness of data entry in DTTS. For example:

- With regard to shipments not entered in the system in a timely manner, Military Surface Deployment and Distribution Command officials told us that they provided reports to the military service representatives on shipments not in the system at the time of departure; however, they stopped notifying the military service representatives through emails to request assistance because they did not observe a decrease in the number of such shipments.
- With regard to shipment confirmations, while the Military Surface Deployment and Distribution Command continues to provide reports on SRC I shipments that were not confirmed in a timely manner, military service representatives told us that the information they are provided does not include sufficient detail for them to work with receiving locations to improve compliance with confirmation requirements. For example, the report provided by the Military Surface Deployment and Distribution Command does not identify the office responsible for confirmation, and it provides arrival time rather than offload time, although confirmation requirements in the Defense Transportation Regulation cite time elapsed from offload time.

Until the Military Surface Deployment and Distribution Command and the military services collaboratively determine the specific information required for the military services to ensure timely data entry into DTTS, in accordance with the Defense Transportation Regulation, the Military Surface Deployment and Distribution Command will continue to lack full visibility of shipments of SRC I ammunition at certain points during the shipping process and the military services will not be well positioned to improve their oversight of the timeliness of data entry.

Completeness and Accuracy of Data on Shipments

We identified examples of the military services entering incomplete or inaccurate data in DTTS about shipments of SRC I ammunition.

- Incomplete information:

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- The transportation control number for 8 of 104 shipments in our sample was not listed in DTTS, which limits the information available to the Military Surface Deployment and Distribution Command about individual shipments being tracked. For example, if one or more transportation control numbers associated with a shipment are not listed in DTTS, the Military Surface Deployment and Distribution Command may not have accurate information about the type, quantity, and security risk category of ammunition being tracked.⁵²
 - 164 of 1,008 SRC I shipments from November 1, 2013, through April 30, 2015, which were reported to us by the Military Surface Deployment and Distribution Command, were missing data in the Department of Defense Identification Code field, which provides information about the specific type of ammunition being shipped.
 - Inaccurate information—9 of 104 shipments in our sample had inaccurate controlled inventory items codes and were not identified in DTTS as SRC I shipments, which required us to go back to the Military Surface Deployment and Distribution Command to obtain additional information to confirm the shipment had been tracked by satellite.

According to Standards for Internal Control in the Federal Government, agencies should have relevant, reliable, and timely information for decision-making and external reporting purposes. Completeness and accuracy are key characteristics of reliable data and refer to (1) the extent to which relevant records are present and that fields in each record are populated appropriately; (2) recorded data reflect the actual underlying information.⁵³ Military Surface Deployment and Distribution Command officials told us that they attempted to address completeness and accuracy issues on a shipment-by-shipment basis. According to the officials, when an operator responsible for tracking an individual shipment notices missing or inaccurate information—such as when information in the paperwork given to the driver does not match information in the

⁵²A transportation control number is a 17-character data element assigned to control and manage every shipment unit throughout the transportation pipeline. Multiple transportation control numbers may be shipped on a single bill of lading.

⁵³GAO, *Standards for Internal Control in the Federal Government*, [GAO/AIMD-00-21.3.1](#) (Washington, D.C.: November 1999) and *Internal Control Management and Evaluation Tool* (Supersedes [GAO-01-131G](#)), [GAO-01-1008G](#) (Washington, D.C.: Aug. 1, 2001). Also see GAO, *Assessing the Reliability of Computer-Processed Data* (Supersedes [GAO-03-273G](#)), [GAO-09-680G](#) (Washington, D.C.: July 1, 2009), which provides additional details on standards for reliable data.

system—the operator attempts to work with the military service’s shipping office to correct that information for the shipment. However, neither the military services nor the Military Surface Deployment and Distribution Command have conducted an analysis of the problems the Military Surface Deployment and Distribution Command has observed with the completeness and accuracy of data entered by the military services to identify areas for improvement on a broader scale. Until the military services, with the aid of the Military Surface Deployment and Distribution Command, conduct analysis of the completeness and accuracy of data entered into DTTS by shippers on SRC I ammunition shipments, DOD will continue to lack full visibility of shipments of SRC I ammunition and the military services will not be well positioned to improve their oversight of the completeness and accuracy of the data.

Conclusions

SRC I ammunition is treated as a higher risk than other conventional ammunition and serves as a potential threat if it were obtained and used by unauthorized individuals or groups. We found that the military services maintained accountability in their automated information systems of SRC I ammunition at 11 sampled locations. However, we found examples of SRC I ammunition items that were in the physical custody of the Air Force but owned by other services and accountability was not maintained on the Air Force’s system of record. If the Air Force does not revise guidance to clarify that accountability of all SRC I ammunition items in the Air Force’s custody—regardless of ownership—is maintained in the Air Force’s system of record, both the Air Force and the owning service will not have full assurance that accountability was maintained. Also, we found that the military services generally recorded shipment and receipt of SRC I ammunition in their accountability systems, but the Army and Marine Corps do not have guidance that required the receipting of SRC I ammunition in a timely manner, in accordance with DOD policy. Until the Army, at the depot-level, and the Marine Corps finalize and implement guidance that addresses the required time frame for receipting SRC I ammunition, Army and Marine Corps officials will not have the data they need to help assure accountability for all shipped SRC I ammunition. Further, the Air Force, Navy, and Marine Corps have policies or plans regarding maintaining in-transit accountability for shipped SRC I ammunition to generally adhere to DOD requirements, but the Army’s policy and processes do not fully adhere. Unless the Army evaluates and identifies actions to retain accountability for in-transit items until acknowledgment of receipt, the Army will not have a path forward to ensure that accountability for in-transit SRC I ammunition was maintained

and the ammunition was received, thereby creating a potential gap in accountability and visibility of this ammunition.

In addition, we found that the military services have not always entered timely information in DTTS on SRC I ammunition shipments, as specified in the Defense Transportation Regulation, to aid the Military Surface Deployment and Distribution Command's tracking and visibility of SRC I ammunition by satellite. However, the Military Surface Deployment and Distribution Command and the military services have not agreed on the specific information required for the military services to ensure timely data entry into DTTS, in accordance with the Defense Transportation Regulation. Moreover, we identified examples of the military services entering incomplete or inaccurate data in DTTS about shipments of SRC I ammunition. Until the Military Surface Deployment and Distribution Command and the military services collaboratively determine the specific information required for the military services to ensure timely data entry into DTTS, and the military services, with the aid of the Military Surface Deployment and Distribution Command, conduct analysis of the completeness and accuracy of data entered into DTTS military services' shipping offices on SRC I ammunition shipments, the Military Surface Deployment and Distribution Command will continue to lack full visibility of shipments of SRC I ammunition and the military services will not be well positioned to improve their oversight of the timeliness, completeness, and accuracy of data entered in DTTS.

Recommendations for Executive Action

We are making six recommendations to enhance the department's policy and procedures and improve the accountability and visibility of SRC I ammunition.

To ensure the accountability and protection of SRC I ammunition, in accordance with DOD policy, we recommend the Secretary of Defense direct the Secretary of the Air Force to revise guidance to clarify that accountability for all SRC I ammunition items in the Air Force's custody—regardless of ownership—should be maintained in the Air Force's system of record.

To ensure the Army and Marine Corps record the receipt of shipped SRC I ammunition in their accountability systems, and in accordance with DOD policy, we recommend the Secretary of Defense direct:

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- the Secretary of the Army to finalize and implement guidance that addresses the required time frame for receipting SRC I ammunition at the depot level.
 - the Commandant of the Marine Corps to finalize and implement guidance that addresses the required time frame for receipting SRC I ammunition at Marine Corps locations.

To ensure the Army retains accountability of SRC I ammunition in an in-transit status, consistent with DOD policy, we recommend the Secretary of Defense direct the Secretary of the Army to evaluate and identify actions to enable the Army to retain accountability for in-transit items until acknowledgment of receipt.

To help improve visibility and tracking of SRC I ammunition shipments, we recommend the Secretary of Defense direct the Secretaries of the military departments and the Military Surface Deployment and Distribution Command, through the Commander of the U.S. Transportation Command, to collaboratively determine the specific information required for the military services to ensure timely data entry into DTTS, in accordance with the Defense Transportation Regulation.

To help improve the completeness and accuracy of data provided by the military services to the Military Surface Deployment and Distribution Command in accordance with federal internal control standards, we recommend the Secretary of Defense direct the Secretaries of the military departments, with the aid of the Military Surface Deployment and Distribution Command, to conduct analysis of the completeness and accuracy of the data entered into DTTS.

Agency Comments and Our Evaluation

We provided a draft of this report to DOD for review and comment; the department provided technical comments that we considered and incorporated as appropriate. DOD also provided written comments on our recommendations, which are reprinted in appendix V. In commenting on this draft, DOD concurred with all six of our recommendations.

With respect to the first recommendation to ensure the accountability and protection of SRC I ammunition, DOD stated that the Air Force released a memorandum on December 24, 2015, directing Air Force units to account for all SRC I ammunition items in their custody, regardless of ownership, and to maintain them in the Combat Ammunition System. Additionally, DOD stated that such procedures will be included in Air Force guidance by September 30, 2016. With respect to our second and third

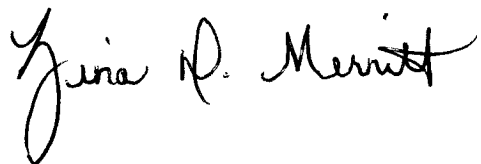
recommendations to ensure the Army and Marine Corps record the receipt of shipped SRC I ammunition in their accountability systems within the required timeframes, DOD stated that the Army will include procedures on the required time frame for receipting SRC I ammunition at the depot-level in their guidance by September 30, 2016. Further, DOD stated that the Marine Corps has issued interim guidance via a Naval Message in January 2016 to address SRC I ammunition accountability along with required receipt times and that such procedures will be included in their guidance by June 30, 2016. Regarding our fourth recommendation to ensure the Army retains accountability of SRC I ammunition in an in-transit status, DOD stated that the Army will evaluate and identify by June 30, 2016, actions to enable the Army to retain accountability for in-transit items until acknowledgment of receipt. Further, DOD stated the proposed actions will then be prioritized for incorporation into any required follow-on work with Army Class V management systems, such as the Logistics Modernization Program and the Standard Army Ammunition System.

Regarding our fifth recommendation to help improve visibility and tracking of SRC I ammunition shipments, DOD stated that the military services and the Military Surface Deployment and Distribution Command will collaboratively determine the specific information the Military Surface Deployment and Distribution Command can provide to the military services to correct data missing in DTTS at the time of shipment, and to complete shipment receipts. Furthermore, to provide greater oversight of the DTTS data, DOD stated the military services and the Military Surface Deployment and Distribution Command will develop the processes required to ensure regular feedback on accuracy and timeliness. Finally, with respect to our sixth recommendation to help improve the completeness and accuracy of data provided by the military services to the Military Surface Deployment and Distribution Command, DOD stated that the military services and the Military Surface Deployment and Distribution Command will complete the necessary analysis of the completeness and accuracy of the data entered into DTTS.

We are sending copies of this report to the appropriate congressional committees, the Secretary of Defense; the Secretaries of the Army, the Navy, and the Air Force; and the Commandant of the Marine Corps. In addition, the report is available at no charge on the GAO website at <http://www.gao.gov>.

If you or your staff has any questions about this report, please contact me at (202) 512-5257 or merrittz@gao.gov. Contact points for our Offices of

Congressional Relations and Public Affairs may be found on the last page of this report. GAO staff members who made key contributions to this report are listed in appendix VI.

A handwritten signature in black ink, reading "Zina D. Merritt". The signature is written in a cursive style with a large initial "Z" and a stylized "M".

Zina D. Merritt
Director, Defense Capabilities and Management

Appendix I: Scope and Methodology

Our review of the Department of Defense's (DOD) management of SRC I ammunition focused on the four military services— Army, Navy, Marine Corps, and Air Force— because each military service owns, stores, and ships SRC I ammunition. To determine the extent to which the military services have maintained accountability of SRC I ammunition in the continental United States, we reviewed DOD policy and military service guidance, including Department of Defense Manual (DODM) 5100.76, *Physical Security of Sensitive Conventional Arms, Ammunition, and Explosives (AA&E)*, (Apr. 17, 2012), among others, detailing: continuous accountability, frequency and process for conducting physical inventories, process for making adjustments to the electronic record if necessary, tracking of SRC I ammunition by serial number, and the shipment of SRC I ammunition in the continental United States.¹ During our review, we visited 11 military locations—including 3 Army depots and 8 military service locations, such as military service installations, bases, and ammunition supply points, with SRC I ammunition—selected based on a number of factors including the size of SRC I inventory, the number of shipments to and from the location, and the variety of SRC I ammunition being stored.² We also visited a contractor with a current production contract for SRC I missiles as SRC I ammunition items are in the contractor's custody while at the contractor's facility for repair, maintenance, or upgrade. Additionally, we interviewed OSD and military services officials responsible for the management of SRC I ammunition, including inventory personnel and transportation officials, to gain an understanding of the frequency and process for conducting physical inventories and how shipments of SRC I ammunition are coordinated.

We compared a non-generalizable sample of over 600 SRC I ammunition items against the records in the military services' automated information systems to verify accountability. For the Army we used the Logistics Modernization Program (LMP), Standard Army Ammunition System-Modernization (SAAS-MOD), and Worldwide Ammunition Reporting System-New Technology (WARS-NT). For the Navy and Marine Corps we used Ordnance Information System- Wholesale (OIS-W), Ordnance Information System-Retail (OIS-R), and Ordnance Information System-

¹See appendix III for a listing of DOD policy and military service guidance.

²From our initial examination of on-hand SRC I ammunition, SRC I ammunition was located at 7 Army depots, 50 Army sites, 29 Navy sites, 17 Marine Corps sites, and 29 Air Force sites.

Marine Corps (OIS-MC). For the Air Force we used Combat Ammunition System (CAS). Specifically, during our site visits to 11 military locations and 1 contractor location, we went through storage buildings with SRC I ammunition and selected SRC I ammunition from different pallets to include a range of SRC I items as well as items from recent shipments, and documented identifying information including serial and production lot number. We verified the Army, Navy, and Marine Corps SRC I ammunition items by serial and lot number. Due to the way the Air Force maintains its records, we verified their SRC I ammunition to records based on lot number and quantity.

We analyzed DOD policy and military service guidance on frequency and process for conducting physical inventories and reviewed supporting documentation to determine whether the services were maintaining accountability by conducting physical inventories according to requirements. For Army depots, we collected documentation of completed physical inventories for three fiscal years prior to our audit work— 2012, 2013, and 2014 and conducted site visits to three Army depots to observe a walk-through of their physical inventory process. We selected the three Army depots to visit based on a number of factors, including range in quantity and type of SRC I in storage and recent shipments. To supplement our site visits, we also interviewed inventory personnel at the remaining depots regarding the physical inventory process and process for adjusting the electronic record, if necessary. For five military service locations we visited, we requested documentation of the last three completed physical inventories to obtain a variety of physical inventories (e.g., monthly, quarterly, annually, or change in command) and we also observed a walk-through of their physical inventory process. Further, to supplement our site visits, we randomly selected 10 additional Air Force locations and obtained documentation for their last three completed physical inventories. We reviewed the inventories for our non-generalizable sample of 22 selected locations to determine whether physical inventories were being conducted in accordance with DOD policy and military service guidance and at required frequencies. Finally, during our site visit with the contractor, we confirmed the contractor had completed physical inventories of SRC I missiles in its custody as well as discussed with officials how they conduct physical inventories of SRC I ammunition at their location.

We also examined the military services' guidance and procedures for maintaining accountability for items owned by one service but in the physical custody of another service. We analyzed DOD policy and military service guidance on maintaining accountability for ammunition to

determine the extent to which military services' guidance aligned with DOD policy. We also analyzed data and documents obtained from the Air Force, Army, and Marine Corps on 55 SRC I items from 4 shipments of SRC I ammunition in the continental United States that contained ammunition owned by the Army or Marine Corps that was shipped to and held in the physical custody of the Air Force but for which we had found that accountability was not maintained on the Air Force's system of record. We identified these items because we were unable to locate receipts for certain shipments in the Air Force's system of record when we reviewed it for our analysis of the timeliness of receipt of shipments of SRC I ammunition described below. Information we report about the number of SRC I items or shipments we identified as being owned by another service but in the physical custody of the Air Force and not maintained on the Air Force's accountable record is non-generalizable to the overall universe of SRC I items but provides insights on how the Air Force manages items in its physical custody that are owned by another service.

Further, we analyzed shipping documents and military service data for a non-generalizable sample of 104 SRC I shipments, and compared receipting time frames for these shipments to military service guidance to analyze how accountability was maintained. When the military services did not have documented guidance on receipting time frames, we obtained information from military service officials about standard procedures followed by the military service. Our sample was comprised of shipments that occurred between November 1, 2013, and April 30, 2015, and that were shipped to or from locations we visited or interviewed. We selected these time frames to provide an 18-month window that provided one prior year's data and six months that coincided with the period when we were conducting field work. Further, we selected our sample to reflect shipments to or from a variety of military services, locations, and location types. Because our sample of shipments is non-generalizable, results of our analysis cannot be used to make inferences about all SRC I shipments within the continental United States but they provide insights on the military services' adherence to DOD policy and service-level guidance or standard practice regarding the shipment of SRC I ammunition. For the 104 shipments in our sample, we obtained and reviewed shipping documents and receipt data from the receiving military

services' accountability systems.³ We compared the receipt data from the receiving military service's accountability systems to data on shipment arrival time at the receiving location that we obtained from the Defense Transportation Tracking System (DTTS), maintained by the Military Surface Deployment and Distribution Command. For our analysis, we analyzed whether shipments were receipted within 2 business days of the day of arrival of the shipment even though either service guidance or standard practice generally required receipting within 1 business day or less.⁴ We allowed for 2 business days because military services' information systems may take an additional business day to record transactions.

Also, we analyzed military service guidance related to providing accountability for in-transit items and compared that guidance to DOD policy to assess whether the military services' policies and processes for maintaining accountability for in-transit SRC I ammunition items enabled the military services to maintain accountability of SRC I ammunition in the continental United States. When we determined that a military service's guidance and processes did not align with DOD policy, we requested and reviewed additional documentation, such as analyses of gaps in information system capabilities and documentation of planning of system upgrades, and conducted interviews with military service officials to determine the reasons for the differences.

To determine the extent to which DOD has maintained visibility of SRC I ammunition in the continental United States, we reviewed DOD policy and military service guidance, including DODM 5100.76 and the Defense Transportation Regulation, among others, detailing procedures to maintain visibility of SRC I ammunition, including in-transit visibility during shipment, satellite tracking of shipments, and timeframes for entering

³For the Army, we analyzed receipt data from WARS-NT, a visibility system that receives feeds from the Army's accountability systems at the depot and retail level. For the Marine Corps, we analyzed data from the Marine Corps' OIS-MC system, a visibility system that receives feeds from the accountability system used by Marine Corps ammunition supply points. For the purposes of this analysis, we refer to those systems as accountability systems since the underlying data comes from the services' accountability systems.

⁴If a shipment arrived after 5 p.m. Eastern Daylight Time (4 p.m. Eastern Standard Time), we considered the shipment as arriving on the next business day and analyzed whether the shipment was receipted within 2 business days of the next business day after shipment arrival.

shipment information into DTTS.⁵ In addition, we interviewed relevant officials at the Office of the Secretary of Defense, the military services, U.S. Transportation Command, and the Military Surface Deployment and Distribution Command to gain an understanding of how visibility is maintained in their automated information systems, how shipments of SRC I ammunition are processed for shipping and entered into DTTS, and how visibility is maintained while the shipment is in transit.

We obtained SRC I ammunition data from each of the military services' automated information systems as of April 30, 2015, and analyzed this data for timely, complete and accurate information to maintain full visibility of SRC I ammunition in the continental United States. Specifically, we compared this data, based on a number of elements including type of SRC I ammunition, location in the continental United States, condition of the SRC I ammunition, and military service ownership codes, against information in the department's National Level Ammunition Capability (NLAC) system, a DOD-wide repository that provides visibility of SRC I ammunition data, to identify inconsistencies across DOD and the military services.

We also analyzed DOD requirements for satellite tracking from the Defense Transportation Regulation and obtained and analyzed information from DTTS provided by the Military Surface Deployment and Distribution Command about satellite tracking of shipments of SRC I ammunition in the continental United States from November 1, 2013, through April 30, 2015, to gain an understanding of how visibility is maintained. We analyzed data from November 1, 2013, to April 30, 2015, to correspond to the time frame we used to select our non-generalizable sample of shipments for review. To examine whether the military services used satellite tracking for shipments included in our non-generalizable sample of 104 shipments described above, we compared the transportation control number for each shipment in our sample to transportation control numbers associated with SRC I shipments in DTTS. When we could not locate a shipment in DTTS by transportation control number, we followed up with the Military Surface Deployment and Distribution Command to obtain additional information about the shipment, since in some cases the transportation control number was in DTTS but not in the data provided to us since the data was provided

⁵See appendix III for a listing of DOD policy and military service guidance.

based on a bill-of-lading number. For the shipments that neither we nor the Military Surface Deployment and Distribution Command could locate in DTTS, we requested additional information about the shipment from military service officials to attempt to locate the shipment in DTTS through a means besides the transportation control number. For example, in some cases, the shipper had not identified the shipment in DTTS by transportation control number, and we were able to obtain and search on the bill-of-lading number to confirm that the shipment had been tracked in DTTS.

We also examined the extent to which the military services provided timely data in DTTS, in accordance with the Defense Transportation Regulation, to ensure visibility. We analyzed data and reports provided by the Military Surface Deployment and Distribution Command from DTTS to identify the number of SRC I shipments between November 1, 2013, and April 30, 2015, for which information had not been entered into the system at the time of shipment departure and the number of shipments that were not confirmed within the calendar month of arrival. Further, we examined the extent to which the military services provided accurate and complete data in DTTS. We compared values for key data fields in DTTS, such as the DOD Identification Code and transportation control number, to shipping documents for selected shipments from our sample of 104 shipments. We also analyzed the number of missing values for selected data fields in DTTS for the 1,008 SRC I shipments in the continental United States between November 1, 2013, and April 30, 2015, reported to us by the Military Surface Deployment and Distribution Command. While we identified some issues related to the accuracy and completeness of DTTS data that are described in this report and may affect the reliability of the overall number of SRC I shipments during this time frame, we determined that the data were sufficiently reliable for our purposes of analyzing information about individual shipments in our sample and general trends in the timeliness, accuracy, and completeness of data entry in DTTS. To obtain additional information about the timeliness, accuracy, and completeness issues we identified and steps that were being taken to address these issues, we conducted interviews with U.S. Transportation Command and Military Surface Deployment and Distribution Command officials, as well as representatives from each of the military services who are assigned to coordinate with the Military Surface Deployment and Distribution Command on transportation issues and reviewed additional documentation provided by the Military Surface Deployment and Distribution Command and the military services, such as reporting provided by the Military Surface Deployment and Distribution Command to the military services.

Table 4 lists the offices that we visited or contacted during our review.

Table 4: Offices Visited or Contacted During Our Review

Department of Defense	<ul style="list-style-type: none"> Office of the Secretary of Defense for Acquisition, Technology and Logistics, Logistics & Materiel Readiness, Supply Chain Integration U.S. Transportation Command
Army	<ul style="list-style-type: none"> Department of the Army, Deputy Chief of Staff for Logistics (HQDA, G-4) Army Military Surface Deployment and Distribution Command Army Materiel Command, Headquarters Army Materiel Command, Joint Munitions Command Army Materiel Command, United States Army Aviation and Missile Life Cycle Management Command Army Materiel Command, United States Army Aviation and Missile Life Cycle Management Command, PEO Missiles and Space Army Materiel Command, Army Sustainment Command Assistant Secretary of the Army for Acquisition, Logistics, and Technology Anniston Munitions Center Blue Grass Army Depot Crane Army Ammunition Activity Hawthorne Army Depot Letterkenny Munitions Center McAlester Army Ammunition Plant Tooele Army Depot 404th Army Field Support Brigade Ammo 406th Army Field Support Brigade Ammo 407th Army Field Support Brigade Ammo Fort Jackson Ammunition Supply Point Fort Stewart Ammunition Supply Point Camp Blanding Army National Guard
Navy	<ul style="list-style-type: none"> Office of the Chief of Naval Operations, Deputy Chief of Naval Operations, (Fleet Readiness & Logistics), Supply, Ordnance & Logistics Operations Division (OPNAV N41) Naval Supply Systems Command, Global Logistics Support-Ammunition Naval Warfare Station, Fallbrook Naval Warfare Station, Seal Beach

Marine Corps	<ul style="list-style-type: none">• Marine Corps Systems Command, Program Manager, Ammunition• Camp Pendleton Ammunition Supply Point• 29 Palms Ammunition Supply Point
Air Force	<ul style="list-style-type: none">• Department of the Air Force, Directorate of Logistics, Nuclear, Missile, and Munitions Divisions (AF/A4LW)• Global Ammunition Control-Point• Cannon Air Force Base• Nellis Air Force Base• Wisconsin Air National Guard• Shaw Air Force Base
Contractor	<ul style="list-style-type: none">• Lockheed Martin

Source: GAO. | GAO-16-202

We conducted this performance audit from September 2014 to February 2016 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Appendix II: Selected Security Risk Category I Ammunition

Figure 3: Selected Security Risk Category I Ammunition



Stinger missile

In production since 1978, the Stinger missile is a lightweight air defense weapon that can be rapidly deployed in any combat situation.



Javelin missile

Javelin is a portable, shoulder-launched missile system that is highly lethal against targets ranging from main battle tanks to fleeting targets of opportunity found in current threat environments.



AT4 M136

The AT4 M136 is a lightweight, portable, anti-armor weapon.



M72A7 Light Anti-tank Weapon (LAW)

The M72A7 Light Anti-tank weapon system is a shoulder-fired rocket.

Source: Department of Defense (DOD). | GAO-16-202

Part 1 of 2



M72A9 Light Anti-tank Weapon (LAW) Anti-Structure Munition (ASM)

The M72A9 LAW-ASM is a portable, lightweight, shoulder-fired anti-structure weapon and can only be fired in the open field environment.



Bunker Defeat Munition

The Bunker Defeat Munition is a single-shot, disposable, shoulder launched munition designed to defeat earth and timber bunkers under all weather and visibility conditions.



AT4 Confined Space (CS) - Reduced Sensitivity (RS)

The AT4 CS-RS is a lightweight, portable, anti-armor weapon.

Source: Department of Defense (DOD). | GAO-16-202

Part 2 of 2

Appendix III: Overview of Policy and Guidance of SRC I Ammunition in the Continental United States

Department of Defense Manual (DODM) 5100.76, *Physical Security of Sensitive Conventional Arms, Ammunition, and Explosives (AA&E)* sets forth DOD policy on the physical security of sensitive conventional AA&E. According to DODM 5100.76, continuous program and policy oversight is required to ensure protection of AA&E within DOD, and DOD components are required to track and conduct physical inventories of SRC I ammunition by serial number.¹ DOD policy requires SRC I ammunition to be treated as a higher risk than other conventional ammunition which requires a higher level of protection and security.² DOD and the military services have policy and guidance on how to account for, safeguard, conduct physical inventories, adjust if necessary, track, and ship SRC I ammunition within and between services and to contractors for repair, as shown in table 5 below.

Table 5: Select DOD Policies and Regulations and Military Service Regulations and Guidance on Accountability, Including Physical Inventories and Transportation, of Security Risk Category I Ammunition

Component	DOD policies and regulations and military service regulations and guidance
DOD	Department of Defense Transportation Regulation 4500.9-R, pt. II, <i>Cargo Movement</i> (Oct. 1, 2015).
	Department of Defense Instruction 5100.76, <i>Safeguarding Sensitive Conventional Arms, Ammunition, and Explosives (AA&E)</i> (Feb. 28, 2014).
	Department of Defense Manual 4140.01, <i>DoD Supply Chain Materiel Management Procedures: Management of Critical Safety Items, Controlled Inventory Items Including Nuclear Weapons-Related Materiel</i> , vol. 11 (Feb. 10, 2014).
	Department of Defense Manual 5100.76, <i>Physical Security of Sensitive Conventional Arms, Ammunition, and Explosives (AA&E)</i> (Apr. 17, 2012).
	Department of Defense Instruction 5000.64, <i>Accountability and Management of DoD Equipment and Other Accountable Property</i> (May 19, 2011).
	Department of Defense Directive 5158.04, <i>United States Transportation Command (USTRANSCOM)</i> (July 27, 2007).
Army	Army Regulation 190-11, <i>Physical Security of Arms, Ammunition, and Explosives</i> (Sept. 5, 2013).

¹DODM 5100.76, *Physical Security of Sensitive Conventional Arms, Ammunition, and Explosives (AA&E)* (Apr. 17, 2012).

²The SRC identification process defines the minimum security requirements to adequately protect identified ammunition. The department also uses Controlled Inventory Item Codes (CIIC) to define an item based on its security classification, sensitivity, or pilferage controls. CIICs are used to identify the extent and type of handling required due to the classified nature or special characteristics of the item for storage and transportation activities. CIIC 1, 5, and 6 denotes SRC I ammunition that are unclassified, secret, and confidential, respectively. AA&E that are not SRC I may be classified as 5 or 6 in order to treat the AA&E with the same level of security and protection as SRC I.

**Appendix III: Overview of Policy and Guidance
of SRC I Ammunition in the Continental United
States**

Component	DOD policies and regulations and military service regulations and guidance
	Army Regulation 740–26, <i>Physical Inventory Control</i> (Feb. 22, 2013).
	Army Materiel Command Regulation 740–27, <i>Ammunition Inventory and Accountability</i> (Mar. 10, 2010).
	Army Regulation 710–2, <i>Supply Policy Below the National Level</i> (Mar. 28, 2008).
	Department of the Army Pamphlet 710–2–1, <i>Using Unit Supply System (Manual Procedures)</i> (Dec. 31, 1997).
Navy	Office of the Chief of Naval Operations Instruction 8015.2C, <i>Conventional Ordnance Inventory Management</i> (Sept. 30, 2014).
	Department of the Navy P-724, <i>Conventional Ordnance Stockpile Management Policies and Procedures</i> (April 2015).
	Office of the Chief of Naval Operations Manual M-8000.16, <i>The Naval Ordnance Management Policy (NOMP) Manual</i> (Jan. 15, 2014).
	Office of the Chief of Naval Operations Instruction 5530.13C, <i>Department of the Navy Physical Security Instruction for Conventional Arms, Ammunition, and Explosives (AA&E)</i> (Sept. 26, 2003).
Marine Corps	Marine Corps Center Magazine Area/Physical Inventory Control Program Instruction 8000, <i>Physical Inventory Control Program (PICP) Inventory Plan</i> (Oct. 1, 2014).
	Marine Corps Order 4400.150, <i>Consumer-Level Supply Policy</i> (Jan. 29, 2014).
	Marine Corps Order 5530.14A, <i>Marine Corps Physical Security Program Manual</i> (June 5, 2009).
	Marine Corps Order 8015.3A, <i>Marine Corps Class V(W) Physical Inventory Control Program (PICP)</i> (July 27, 2012).
Air Force	Air Force Instruction 21-201, <i>Munitions Management</i> (June 3, 2015).
	Air Force Instruction 31-101, <i>Integrated Defense</i> (May 15, 2015).
	Air Force Policy Directive 21-2, <i>Maintenance Munitions</i> (Sept. 20, 2005).

Source: Department of Defense (DOD) policies, regulations, and guidance. | GAO-16-202

Appendix IV: GAO’s Prior Work on SRC I Ammunition

Table 6: Status of Recommendations From GAO’s Prior Work on SRC I Ammunition

Report date	Report title and number	Total recommendations	Open	Closed (implemented)	Closed (not implemented)
May 2014	<i>Defense Transportation: DOD Needs to Take Actions to Improve the Transportation of Hazardous Material Shipments</i> (GAO-14-375)	3	-	3	-
March 2014	<i>Defense Logistics: Actions needed to Improve Department-Wide Management of Conventional Ammunition Inventory</i> (GAO-14-182)	7	5	2	-
April 2000	<i>DOD Inventory: Weaknesses in Controls Over Category I Rockets</i> (AIMD-00-62R)	10	-	9	1
September 1997	<i>Inventory Management: Vulnerability of Sensitive Defense Material to Theft</i> (GAO/NSIAD-97-175)	5	-	5	0
September 1994	<i>Inventory Management: Handheld Missiles Are Vulnerable to Theft and Undetected Losses</i> (GAO/NSIAD-94-100)	6	-	6	-
Total		31	5	25	1

Source: GAO. | GAO-16-202

Defense Transportation: DOD Needs to Take Actions to Improve the Transportation of Hazardous Material Shipments	<p>In May 2014, we found that the department has experienced some challenges in implementing hazardous materials (HAZMAT) regulations and other guidance, which can adversely affect the safe, timely, and cost-effective transportation of HAZMAT. For example, we found that at least 44 times during fiscal years 2012 and 2013, DOD installations did not provide commercial carriers with access to secure hold areas for arms, ammunition, and explosives shipments or assist them in finding alternatives, as required by DOD regulations. We made 3 recommendations and all 3 have been closed as implemented. Table 7 summarizes our recommendations and their implementation status.</p>
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Table 7: Status of Recommendations from Defense Transportation: DOD Needs to Take Actions to Improve the Transportation of Hazardous Material Shipments

Recommendation #1	
<p>To minimize the time sensitive arms, ammunition, and explosives shipments spend in public areas, the Secretary of Defense, in coordination with the Chairman of the Joint Chiefs of Staff, should direct the Secretaries of the military departments, in collaboration with TRANSCOM, to establish a process to identify and implement the necessary corrective actions to ensure that DOD installations identified by Surface Deployment and Distribution Command’s Emergency Response</p>	<p>Status: Implemented</p> <p>Comments: To improve the HAZMAT discrepancies, DOD added new supply discrepancy report codes to the Defense Logistics Management Standards (DLMS) to enhance the visibility of discrepancies when shipping HAZMAT to address one of our findings and corresponding recommendation. The DLMS report noted DOD’s significant problem with documentation and packaging discrepancies and stated that in response to GAO-14-375, DOD</p>

Reports provide secure hold for sensitive shipments or assist them in locating the nearest alternate means to secure those shipments.

needed to take actions to improve the transportation of hazardous material shipments in and out of ports. Consequently, the new transportation-related documentation discrepancy codes were developed as corrective actions to the findings in our May 2014 report.

Recommendation #2

To improve DOD's compliance with HAZMAT regulations and other guidance and potentially reduce shipment delays, the Secretary of Defense, in coordination with the Chairman of the Joint Chiefs of Staff, should direct the Under Secretary of Defense for Acquisition, Technology and Logistics, in collaboration with the military departments and the U.S. Transportation Command (TRANSCOM), to identify the root causes of improper documentation and packaging of HAZMAT throughout the DOD transportation system, identify any needed corrective actions, and develop an action plan with associated milestones to implement those corrective actions.

Status: Implemented

Comments: According to SDDC officials, the Defense Transportation Tracking System (DTTS) started tracking and reporting secure hold denial incidents based on the recommendation we made in our report. SDDC and DTTS reports indicated that for fiscal years 2012 and 2013, DOD installations did not provide commercial carriers access to a secure hold area for at least 44 out of 70,891 sensitive arms, ammunition, and explosives shipments or did not assist carriers in finding alternative means to secure those shipments. According to SDDC officials, the numbers of trucks parked in unauthorized locations have dropped significantly due to DOD's response to our [GAO-14-375](#) report. DTTS emergency reports now track secured hold denials as a separate item on their incident reports. Thus, SDDC officials stated that they can identify such secure hold denial issues and take corrective actions.

Recommendation #3

To better ensure the safety and security of DOD's shipments of sensitive arms, ammunition, and explosives, the Secretary of Defense, in coordination with the Chairman of the Joint Chiefs of Staff, should direct TRANSCOM to examine the data limitations of the Department of Transportation (DOT) Federal Motor Carrier Safety Administration's Safety Measurement System raised in our February 2014 report on modifying DOT's Compliance, Safety, and Accountability program and determine what changes, if any, should be made to the process used by DOD to decide HAZMAT carrier eligibility and evaluate performance for the Transportation Protective Services program.

Status: Implemented

Comments: According to DOD, the TPS program guidance is sufficient in describing carrier safety requirements. The DOD regularly evaluates carrier safety performance for continued participation in the TPS program through the Military Surface Deployment and Distribution Command's (SDDC) Transportation Safety and Security program where a contractor performs reviews, at both carrier facilities and while shipments are in-transit, of carrier and driver safety performance. DOD has placed less reliance on DOT scores for evaluating overall carrier safety performance as a result of the GAO Report 14-114, "Federal Motor Carrier Safety: Modifying Compliance, Safety, Accountability Program Would Improve the Ability to Identify High Risk Carriers," dated February 2014, which was critical of the DOT scoring system in a number of areas, to include a finding that the majority of regulations used to calculate the safety scores are not violated often enough to strongly associate them with crash risk for individual carriers.

Source: GAO analysis. | GAO-16-202

Defense Logistics: Actions Needed to Improve Department-Wide Management of Conventional Ammunition Inventory

In March 2014, we found that the military services' automated information systems used to maintain accountability for ammunition inventory have some limitations that affect their ability to facilitate efficient management of conventional ammunition. For example, the systems cannot directly exchange ammunition data because they use different exchange formats that require extra time and resources to ensure data efficiency when exchanging between systems. We also found that Army reports of ammunition inventory data, used in the process for collecting and sharing ammunition data among the military services do not include information on certain missiles. We concluded that without incorporating these items in the Army's report, DOD may lack full transparency about all available items and may miss opportunities to avoid procurement costs for certain usable items that may already be available in the Army's stockpile. We made 7 recommendations, of which 2 have been implemented and 5 remain open. Table 8 summarizes our recommendations and their implementation status.

Table 8: Status of Recommendations from Defense Logistics: Actions Needed to Improve Department-Wide Management of Conventional Ammunition Inventory

Recommendation #1	
To improve the efficiency of data exchanges between LMP and other service ammunition systems, the Secretary of Defense, in coordination with the Under Secretary of Defense for Acquisition, Technology, and Logistics, should direct the Secretary of the Navy to (1) take steps to incorporate Defense Logistics Management Standards (DLMS) into the Ordnance Information System and (2) direct the Commandant of the Marine Corps to take similar steps with regard to the Ordnance Information System-Marine Corps.	<p>Status: Open</p> <p>Comments: In September 2014, DOD reported that it will not be compliant with Defense Logistics Management Standards (DLMS) in the near term. Further, DOD stated that the Marine Corps and Navy were submitting funding requirements for DLMS compliance in their fiscal year 2017 budget submissions.</p>
Recommendation #2	
To improve the efficiency of data exchanges between LMP and other service ammunition systems, the Secretary of Defense, in coordination with the Under Secretary of Defense for Acquisition, Technology, and Logistics, should direct the Secretary of the Air Force to assess the feasibility of accelerating the 2017 target date for incorporating DLMS into the Combat Ammunition System and, if determined to be feasible, take appropriate implementation actions.	<p>Status: Open</p> <p>Comments: In September 2014, DOD reported that it will not be compliant with Defense Logistics Management Standards (DLMS) in the near term. Further, DOD stated that the Air Force was on track for full implementation of DLMS by 2017.</p>
Recommendation #3	
To provide greater assurance that LMP is capable of maintaining accurate, timely, and more complete ammunition data in accordance with DOD supply chain materiel management and ammunition guidance, the Secretary of Defense should direct the Secretary of the Army to establish a plan, with timeframes and costs, for incorporating ammunition-related functionality into LMP, including functionality that is no longer being included in the planned ammunition-related upgrades for Increment 2.	<p>Status: Open</p> <p>Comments: In September 2014, DOD reported that the Army Logistics Modernization Program (LMP) will incorporate additional ammunition-related functionality to improve the timeliness and visibility of ammunition data. Specifically, DOD stated that the current update to the system (known as LMP Increment 2) will include an Automatic Identification Technology feature and is scheduled for full deployment by fiscal year 2016. Additional</p>

ammunition-related functionality will be included in a future update (known as LMP Increment 3), which is still in development.

Recommendation #4

To improve DOD's ability to provide total asset visibility over conventional ammunition, the Secretary of Defense should direct the Under Secretary of Defense for Acquisition, Technology, and Logistics, in conjunction with the Secretaries of the Army, the Air Force, and the Navy, to identify and implement internal controls, consistent with federal internal control standards, that will provide reasonable assurance that NLAC collects comprehensive, accurate data from other service ammunition systems.

Status: Open

Comments: In September 2014, DOD reported that the Army developed a Performance Work Statement for the National Level Ammunition Capability (NLAC) contract that includes federal internal control guidelines aimed at ensuring that the data being sent by the services is accurately shown in NLAC. We will follow-up to determine whether and how this change is incorporated.

Recommendation #5

To improve DOD's ability to provide total asset visibility over conventional ammunition, the Secretary of Defense should direct the Under Secretary of Defense for Acquisition, Technology, and Logistics, in conjunction with the Secretaries of the Army, the Air Force, and the Navy, to designate an authoritative source of data on conventional ammunition DOD-wide—whether NLAC or through some other means—and issue guidance to implement this decision.

Status: Open

Comments: In September 2014, DOD reported that it was in the process of determining and selecting a single, authoritative database tool that will provide centralized visibility of ammunition. According to DOD, this process includes an assessment of current DOD ammunition information technology systems, selection and approval of a single database tool, issuing guidance, and developing a final report to Congress. DOD estimated that the completion date for the process is the 4th quarter of fiscal year 2015.

Recommendation #6

To enable the military services to make maximum use of ammunition in the inventory, the Secretary of Defense should direct the Secretary of the Army to ensure that annual stratification reports on conventional ammunition include missiles managed by the Army Aviation and Missile Command.

Status: Implemented

Comments: The Army has begun to include missile information in DOD's annual ammunition cross-leveling process. In September 2014, DOD provided an update to the Committee on Homeland Security and Government Affairs regarding the status of this recommendation and stated that it was revising guidance to add missile information managed by the Army Aviation and Missile Command to its annual inventory stratification report. The military services use such stratification reports as a key input for the ammunition cross-leveling process. A subsequent DOD briefing on the results of the fiscal year 2014 cross-leveling process showed that Army missiles were included in the process and that some missiles were transferred to another service. DOD also has issued revisions to its supply chain guidance requiring such information to be included as part of stratification reporting.

Recommendation #7

To enable the military services to make maximum use of ammunition in the inventory, the Secretary of Defense should direct the Under Secretary of Defense for Acquisition, Technology, and Logistics to revise guidance to require the Secretary of the Army to include in its annual reports, or another report, as appropriate, information on all available ammunition for use during the redistribution process—including ammunition that in a previous year was unclaimed by another service and categorized for disposal.

Status: Implemented

Comments: In September 2014, DOD reported that it was revising DOD guidance to include unclaimed ammunition data categorized for disposal from prior years in the annual redistribution process. Revisions were made to DOD Manual 4140.01 and were published on August 14, 2015 (vo. 6) and June 25, 2015 (vol. 10).

Source: GAO analysis. | GAO-16-202

DOD Inventory: Weaknesses in Controls Over Category I Rockets

In April 2000, we found internal controls weaknesses at an Army ammunition depot that resulted in a loss of accountability and control over SRC I rockets. For example, serial number control of SRC I rockets was lost at the time of shipment from the contractor because serial numbers listed on receiving reports that accompanied shipments did not correspond to the actual items and quantities of the respective shipments. We also noted that these control weaknesses indicate that the depot's inventory business processes for these sensitive items do not fully comply with federal accounting and systems requirements. We made 10 recommendations, of which 9 have been implemented and 1 has not been implemented. Table 9 summarizes our recommendations and their implementation status.

Table 9: Status of Recommendations from DOD Inventory: Weaknesses in Controls Over Category I Rockets

Recommendation #1

To correct or mitigate the internal control weaknesses GAO identified in relation to the inventory discrepancies over a sensitive category I item at the Blue Grass Army Depot, the Secretary of the Army should monitor the status of rejected receipt transactions and other unprocessed receipts daily and ensure that rejects are promptly corrected and processed in accordance with existing depot desk procedures.

Status: Implemented

Comments: The Blue Grass Army Depot has established procedures for clerks to daily review reject listings and perform timely research to correct rejected receipt transactions. In addition, the procedures require supervisors to monitor the processing of rejected transactions and review transaction listings weekly.

Recommendation #2

To correct or mitigate the internal control weaknesses GAO identified in relation to the inventory discrepancies over a sensitive category I item at the Blue Grass Army Depot, the Secretary of the Army should determine the reason for location errors, such as the one that occurred for the rocket and launcher units, and take corrective action.

Status: Implemented

Comments: To help preclude locations errors, the Blue Grass Army Depot has initiated procedures that require two people to independently record and verify the location of category I items when being stored, as well as during and after data entry to the inventory system.

Recommendation #3

To correct or mitigate the internal control weaknesses GAO identified in relation to the inventory discrepancies over a sensitive category I item at the Blue Grass Army Depot, the Secretary of the Army should confirm that existing procedures regarding the use of suspense files are followed for items changing ownership within the depot.

Status: Implemented

Comments: The Blue Grass Army Depot revised its procedures to eliminate the suspense file. Instead, when executing transfers of material between owners at the depot, the revised procedures require the loss and gain transactions to be simultaneously recorded in both accounts and a copy of the transaction sent to the new owner.

Recommendation #4

To correct or mitigate the internal control weaknesses GAO identified in relation to the inventory discrepancies over a sensitive category I item at the Blue Grass Army Depot, the Secretary of the Army should provide appropriate training on SDS and internal control procedures to inventory personnel.

Status: Implemented

Comments: From February 2001 to April 2001, Blue Grass Army Depot management provided refresher training to 118 employees who perform ammunition receipt and issue duties at the depot. In addition, three depot clerks completed a computer assisted ammunition receiving course.

Recommendation #5

To address the weaknesses identified at the Blue Grass Army Depot that could be systemic to the Army Materiel Command, the Secretary of the Army should establish procedures in conjunction with the Defense Contract Management Agency to ensure that all purchases are recorded in inventory records upon acceptance by the government at the contractor site based on the receiving reports (DD Form 250s).

Status: Implemented

Comments: The Army Materiel Command established specific written procedures in September 2000, requiring item managers to monitor munitions production schedules and delivery documentation (DD-250s) to ensure that the Command Commodity Standard System's (CCSS) accountable records accurately report receipt of accepted items. Specific procedures require item managers to monitor acceptance testing and adjust condition and location codes of items when appropriate. The new procedures also require the managers to monitor contractor shipments of accepted items until receipt at the destination depot or activity and to investigate discrepancies and late deliveries. In addition, the Command provided training to item managers in June 2001, on how to review "due-in" information in CCSS to track the movement of newly produced items from the manufacturer to the depot. Operations Support Command Assessments, conducted through the fourth quarter of fiscal year 2002, confirmed that these procedures were implemented.

Recommendation #6

To address the weaknesses identified at the Blue Grass Army Depot that could be systemic to the Army Materiel Command, the Secretary of the Army should establish Army procedures to ensure that serial numbers of category I items are recorded on bills of lading or other documents that accompany the shipments to help maintain serial number control for all items in the shipment.

Status: Implemented

Comments: After further review of the Defense Federal Acquisition Regulation, the Army informed the contractor that the regulation requires a separate DD Form 250 for each truck used in shipping ammunition. Following this requirement would ensure serial number control for category I items.

Recommendation #7

To address the weaknesses identified at the Blue Grass Army Depot that could be systemic to the Army Materiel Command, the Secretary of the Army should confirm that item managers have procedures to perform timely and complete follow-up on suspected shipment delays and verify that the procedures are followed.

Status: Implemented

Comments: Since October 1, 2001, the Army Materiel Command has been manually keeping records on "cradle to grave" accountability of its most sensitive munitions to enhance its oversight of shipments and compliance with established policies and procedures. The status of shipments is routinely briefed to Command officials. In July 2002, the Army Materiel Command initiated an effort to develop an automated capability for this level of accountability for all of Army's munitions.

Recommendation #8

To address the weaknesses identified at the Blue Grass Army Depot that could be systemic to the Army Materiel Command, the Secretary of the Army should verify that all depots have desk procedures for monitoring daily the status of rejected transactions and promptly correcting and processing rejects, and confirm that the procedures are followed.

Status: Implemented

Comments: The Army Materiel Command required munitions depots to implement new desk procedures that required daily monitoring of the status of rejected transactions and prompt correction of rejected/erroneous data. Command officials told GAO that the procedures were implemented during calendar year 2001. Command Assessments performed through the fourth quarter of fiscal year 2002, provided oversight and validated depot compliance with the revised requirements. As a result of GAO's work, the Army Materiel Command has significantly improved the accuracy of inventory records for sensitive munitions items.

Recommendation #9

To correct or mitigate the internal control weaknesses GAO identified in relation to the inventory discrepancies over a sensitive category I item at the Blue Grass Army Depot, the Secretary of the Army should implement procedures to notify item managers and follow up with other appropriate parties when the serial numbers on the shipping documentation do not match the serial numbers of the items in the shipment.

Status: Implemented

Comments: The Blue Grass Army Depot revised its Standing Operating Procedures to require dual verification of serial numbers and immediate notification of discrepancies to the shipping organization and the Operations Support Command. According to depot officials, they began using these procedures in March 2000.

Recommendation #10

To address the weaknesses identified at the Blue Grass Army Depot that could be systemic to the Army Materiel Command, the Secretary of the Army should determine the cause for the SDS and catalog prices not reflecting the current and actual cost of the rocket and launcher units, and whether the same condition exists for other category I items as well as other ammunition items, and consider the implementation of additional controls to prevent pricing errors or detect errors if they occur.

Status: Not Implemented

Comments: In response to GAO's recommendation, the Army Materiel Command took a number of steps to ensure that inventory systems contain standard pricing information. For example, the Command included a design requirement in the new Logistic Modernization Program (LMP) system, which is being designed to replace the current legacy custodial and accountable record systems, to use more current moving average cost methodology. The LMP program design and implementation has slipped and only the first deployment at CECOM is in progress. The second deployment is still in the design stage. As a result, the schedule for implementation of the AMCOM missile and ammunition cost modules has continued to slip. Due to the continued delays in implementation, this recommendation was closed in 2012 as not implemented. According to DOD officials, as of October 2015, this recommendation has been overcome by events.

Source: GAO analysis. | GAO-16-202

Inventory Management:
Vulnerability of Sensitive
Defense Material to Theft

In September 1997, we found oversight weaknesses with SRC I rockets and that the military services have different procedures and requirements for maintaining oversight of the rockets. Further, we found that discrepancies existed between records of the number of missiles and a physical count we conducted. In addition, we identified that some facilities were not fully complying with DOD physical security requirements. We made 5 recommendations, of which all 5 have been closed as implemented. Table 10 summarizes the recommendations and their implementation status.

Table 10: Status of Recommendations from Inventory Management: Vulnerability of Sensitive Defense Material to Theft

Recommendation #1

The Secretary of Defense should direct the Secretaries of the Army, the Navy, and the Air Force and the Commandant of the Marine Corps to establish procedures for ensuring that serial numbers are not changed during upgrades and modifications of category I missiles and rockets.

Status: Implemented

Comments: DOD Directive 4140.1-R, Materiel Management Policy, will include the following: "Upgrades/renovation or modification of a Category I missile or rocket will require a suffix be added to the original serial number assigned to the item. In no circumstances will

the original serial number of the Category I missile or rocket be replaced in its entirety with another serial number." The information was inadvertently left out of the regulation during its last update a few years ago.

Recommendation #2

The Secretary of Defense should direct the Secretaries of the Army, the Navy, and the Air Force and the Commandant of the Marine Corps to manage category I rockets by serial number so that the item managers will have total visibility over the numbers and locations of rockets.

Status: Implemented

Comments: Serial numbers for Category I rockets will be available within the Army Standard Depot System (SDS) across the custodial records during the first quarter of fiscal year 1998, and also in the Worldwide Ammunition Reporting System. Guidance will be issued to all Navy reporting activities to manage Category I rockets by serial number. Guidance was provided to Navy reporting activities via message 09199Z in July 1997.

Recommendation #3

The Secretary of Defense should direct the Secretaries of the Army, the Navy, and the Air Force and the Commandant of the Marine Corps to develop a cost-effective procedure for opening containers of missiles and rockets, for example, by selecting a representative sample of pallets, rather than individual missiles and rockets, to inspect.

Status: Implemented

Comments: Army regulations require that all missile/rocket containers eventually be opened during maintenance checks. The Army has issued Ammunition Information Notice 36-97, addressing AT-4 and LAW rockets, and Missile Information Notice 97-05, addressing Category I missiles. SB 742-1, Ammunition Surveillance Procedures, establishes the Army policy on random selection of samples for inspections, and is applicable for Category I munitions. The Navy policy for cost-effective safeguards is in OPNAVINST 5530.13B, Physical Security Instructions for Conventional Arms, Ammunition and Explosives. Implementing procedures within NAVSEA two-10-AC-ORD-010 require the opening and inspection of the container for which original seals have been removed, if it appears to have been tampered with, or if the lot or serial number ID is no longer legible.

Recommendation #4

The Secretary of Defense should direct the Secretaries of the Army, the Navy, and the Air Force and the Commandant of the Marine Corps to develop a cost-effective procedure for periodically revalidating the category I inventory baseline by, for example, matching item managers' records with site records annually at a representative sample of storage sites.

Status: Implemented

Comments: The services have developed, or are developing, procedures for revalidating the category I baseline. For example, the Navy ammunition management system validates all transactions, and a physical inventory is conducted semiannually of all category I items. The Army has redesigned its industrial operations command quarterly audit system into a monthly reconciliation system. In addition, the Standard Army Ammunition System-Modernization (SAAS-MOD) has completed fielding worldwide, which reports all daily transactions and serial number data to the Worldwide Ammunition Reporting System (WARS). This system increases visibility of the category I missiles. It also reconciles and revalidates category I missile information from customer data. It also allows for the elimination of manual reporting of category I missiles.

Recommendation #5

The Secretary of Defense should direct the Secretaries of the Army, the Navy, and the Air Force and the Commandant of the Marine Corps to continue to emphasize compliance with physical security requirements.

Status: Implemented

Comments: The Department has specific policy guidance in DOD 5100.76-M, Physical Security of Sensitive Conventional Arms,

Ammunition, and Explosives (AA&E). More general DOD guidance to installation commanders on access and circulation controls is provided in DOD regulation 5200.8-R, DOD Physical Security Program.

Source: GAO analysis. | GAO-16-202

Inventory Management:
Handheld Missiles Are
Vulnerable to Theft and
Undetected Losses

In September 1994, we found discrepancies in the quantities, locations, and serial numbers of SRC I missiles inventories, which we concluded indicated that the services’ oversight and recordkeeping for the missiles is poor. We also noted, among other findings, that the services did not know how many missiles they should have in their possession because they lacked systems to track the missiles by serial number. We made 6 recommendations, all of which have been implemented. Table 11 summarizes the recommendations and their implementation status.

Table 11: Status of Recommendations from Inventory Management: Handheld Missiles Are Vulnerable to Theft and Undetected Losses

Recommendation #1	
The Secretary of Defense should direct the Secretaries of the Army, the Navy, and the Air Force to reemphasize employee security procedures so that they are consistently and uniformly applied to all individuals entering and leaving missile storage areas.	Status: Implemented Comments: All services have agreed to inspect all trucks leaving munitions areas.
Recommendation #2	
The Secretary of Defense should direct the Secretaries of the Army, the Navy, and the Air Force to establish procedures to include a random sampling of missile containers during inventories to ensure that they contain missiles.	Status: Implemented Comments: The DOD process has changed to reflect these changes.
Recommendation #3	
The Secretary of Defense should direct the Secretaries of the Army, the Navy, and the Air Force to establish procedures to track, document, and report additions to and deletions from these new inventory baselines.	Status: Implemented Comments: The DOD process has changed to reflect these changes.
Recommendation #4	
The Secretary of Defense should direct the Secretaries of the Army, the Navy, and the Air Force to conduct independent worldwide inventories of Category I missiles by serial number to establish an accurate baseline of existing missiles.	Status: Implemented Comments: A worldwide inventory was completed in early 1995.
Recommendation #5	
The Secretary of Defense should direct the Secretaries of the Army, the Navy, and the Air Force to authorize Category I missile oversight organizations to enforce missile reporting requirements and to conduct unscheduled independent	Status: Implemented Comments: A worldwide inventory was completed in early 1995.

inventories at depot, post, base, or unit level missile storage sites.

Recommendation #6

The Secretary of Defense should direct the Secretaries of the Army, the Navy, and the Air Force to reexamine the current security policy that permits less than full inspection of vehicles, such as trash trucks, that could easily conceal missiles when leaving ammunition storage areas.

Status: Implemented

Comments: All services have agreed to inspect all trucks leaving munitions areas.

Source: GAO analysis. | GAO-16-202

Appendix V: Comments from the Department of Defense



LOGISTICS AND
MATERIEL READINESS

ASSISTANT SECRETARY OF DEFENSE
3500 DEFENSE PENTAGON
WASHINGTON, DC 20301-3500

FEB 3 2016

Ms. Zina D. Merritt
Director, Defense Capabilities and Management
U.S. Government Accountability Office
441 G Street, N.W.
Washington, DC 20548

Dear Ms. Merritt:

This is the Department of Defense (DoD) response to the GAO Draft Report, GAO-16-202, "DEFENSE LOGISTICS: Enhanced Policy and Procedures Needed to Improve Management of Sensitive Conventional Ammunition," dated December 16, 2015 (GAO Code 351976). Detailed comments on the report recommendations are enclosed. Thank you for the opportunity to provide comments on this draft report.

Sincerely,

A handwritten signature in black ink, reading "David J. Berteau".

David J. Berteau

Enclosure:
As stated

GAO Draft Report Dated December 16, 2015
GAO-16-202 (GAO CODE 351976)

**“DEFENSE LOGISTICS: Enhanced Policy and Procedures Needed to Improve
Management of Sensitive Conventional Ammunition”**

**DEPARTMENT OF DEFENSE COMMENTS
ON THE GAO RECOMMENDATIONS**

RECOMMENDATION 1: The GAO recommends that the Secretary of Defense direct the Secretary of the Air Force to revise guidance to clarify that accountability of all SRC 1 ammunition items in the Air Force’s custody, regardless of ownership, should be maintained in the Air Force’s system of record.

DoD RESPONSE: Concur. The Air Force released a memorandum on December 24, 2015 directing Air Force units to account for all SRC 1 ammunition items in their custody, regardless of ownership, and maintain them in the Combat Ammunition System. The Air Force will by September 30, 2016 include the procedures in Air Force Instruction 21-201.

RECOMMENDATION 2: The GAO recommends that the Secretary of Defense direct the Secretary of the Army to finalize and implement guidance that addresses the required time frame for receipting SRC 1 ammunition at the depot level.

DoD RESPONSE: Concur. Guidance exists in DoD 5100.76-M and Army Regulation 710-2. The Army will by September 30, 2016 include the procedures in Department of the Army PAM 700-16.

RECOMMENDATION 3: The GAO recommends that the Secretary of Defense direct the Commandant of the Marine Corps to finalize and implement guidance that addresses the required time frame for receipting SRC 1 ammunition at Marine Corps locations.

DoD RESPONSE: Concur. The Marine Corps will release interim guidance via Naval Message no later than January 31, 2016 to address SRC 1 ammunition accountability along with required receipt times. The Marine Corps will by June 30, 2016 include the procedures in MCO 4400.201, Volume 4.

RECOMMENDATION 4: The GAO recommends that the Secretary of Defense direct the Secretary of the Army to evaluate and identify actions to enable the Army to retain accountability for in-transit items until acknowledgement of receipt.

DoD RESPONSE: Concur. The Army will evaluate and identify by June 30, 2016 actions to enable the Army to retain accountability for in-transit items until acknowledgement of receipt. The proposed actions will then be prioritized for incorporation into any required follow-on work with Army Class V management systems such as the Logistics Modernization Program and the Standard Army Ammunition System.

RECOMMENDATION 5: The GAO recommends that the Secretary of Defense direct the Secretaries of the Military Departments and the Military Surface Deployment and Distribution Command, through the Commander of the U.S. Transportation Command, to collaboratively determine the specific information required for the military services to ensure timely data entry into DTTS, in accordance with the Defense Transportation regulation.

DoD RESPONSE: Concur. The Military Services and the Military Surface Deployment and Distribution Command (SDDC) will collaboratively determine the specific information SDDC can provide to the Military Services to correct data missing in DTTS at the time of shipment, and to complete shipment receipts. To provide greater oversight of the DTTS data, the Military Services and SDDC will develop the processes required to ensure regular feedback on accuracy and timeliness.

RECOMMENDATION 6: The GAO recommends that the Secretary of Defense direct the Secretaries of the Military Departments, with the aid of the Military Surface Deployment and Distribution Command, to conduct analysis of the completeness and accuracy of the data entered into DTTS.

DoD RESPONSE: Concur. The Military Services and SDDC will complete the necessary analysis of the completeness and accuracy of the data entered into DTTS.

Appendix VI: GAO Contact and Staff Acknowledgments

GAO Contact

Zina D. Merritt, (202) 512-5257 or merrittz@gao.gov

Staff Acknowledgments

In addition to the contact named above, Marilyn Wasleski (Assistant Director), Laura Czohara, Martin de Alteriis, Amie Lesser, Felicia Lopez, Sean Manzano, Anne McDonough-Hughes, Steve Pruitt, and Richard Powelson made key contributions to this report.

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