Audit Report

OFFICE OF THE INSPECTOR GENERAL

ACCOUNTABILITY AND CONTROL OF MATERIELS AT ARMY DEPOTS

Report No. 94-117 June 3, 1994

Department of Defense

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Acronyms

AMC	Army Materiel Command
ASRS	Automated Storage and Retrieval System
CECOM	Communications and Electronics Command
CMF	Consolidated Maintenance Facility
DCSLOG	Deputy Chief of Staff for Logistics
DESCOM	Depot Systems Command
DLA	Defense Logistics Agency
IG	Inspector General
MSFS	Maintenance Shop Floor System
NSN	National Stock Number
SATCOMA	Satellite Communications Agency
TEAD	Tooele Army Depot
TOAD	Tobyhanna Army Depot
WIP	Work in Process

INSPECTOR GENERAL
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June 3, 1994

MEMORANDUM FOR AUDITOR GENERAL, DEPARTMENT OF THE ARMY

SUBJECT: Audit Report on Accountability and Control of Materiels at Army Depots (Report No. 94-117)

We are providing this final report for your review and comments. It discusses the effectiveness of internal control policies and procedures used to account for and control materiels used at two Army depot maintenance facilities. Management comments on a draft of this report were considered in preparing the final report.

DoD Directive 7650.3 requires that all audit recommendations be resolved promptly. Based on management comments, we revised one recommendation and deleted one. We request the Army to provide additional comments on Recommendations A.1., A.2.d., and B.1. by August 2, 1994. The potential monetary benefits in this report cannot be quantified.

The courtesies extended to the staff are appreciated. If you have any questions on this audit, please contact Mr. Christian Hendricks, Audit Program Director, at (703) 692-3414 (DSN 222-3414) or Mr. Joseph Austin, Audit Project Manager, at (703) 692-3417 (DSN 222-3417). The distribution of this report is listed in Appendix D. The audit team members are listed on the inside back cover of this report.

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Office of the Inspector General, DoD

Report No. 94-117 **June 3, 1994**
(Project No. 3LB-0028)

ACCOUNTABILITY AND CONTROL OF MATERIELS AT ARMY DEPOTS

EXECUTIVE SUMMARY

Introduction. DoD's FY 1993 budget for depot maintenance was about $12.9 billion. The Army's portion was about $1.8 billion for the operation of eight depot maintenance facilities. A significant portion of the Army's depot maintenance budget was for materiels used in the repair and overhaul processes at the depot maintenance facilities.

Depot maintenance facilities need effective inventory control systems to ensure that an adequate supply of materiels, parts, and supplies are on hand to maintain an efficient level of operations and to meet the demands of customers. An effective system is also important to disclose slow moving, defective, and obsolete goods; prevent loss through waste, damage, or pilferage; and ensure the actual existence of the physical quantities and values shown on inventory records. Through inventory control, materiels not needed for requirements at a depot can be made available to inventory managers for redistribution to meet other known requirements.

Objective. The overall objective was to evaluate the effectiveness of internal control policies and procedures used to account for and control materiels used by Army depot maintenance facilities. We also reviewed the adequacy of management's implementation of the DoD Internal Management Control Program and applicable internal controls.

Audit Results. We determined that Army depot maintenance facilities had excessive materiels on hand and did not adequately account for and control the materiels.

o Army depot maintenance facilities were maintaining inventory levels that exceeded authorized stockage levels. As a result, the depot maintenance facilities have about $45.4 million of inventory on hand that exceed requirements (Finding A).

o Army depot maintenance facilities had inadequate accountability and control of materiels. As a result, inventory records at the Tobyhanna Army Depot had an error rate of 15 percent ($2.7 million) and Tooele Army Depot had an error rate of 14 percent ($1.89 million) (Finding B).

Internal Controls. Internal controls were inadequate to ensure that maintenance facilities were maintaining inventories at authorized stockage levels. Additionally, internal controls were inadequate to ensure accountability of materiels and in identifying and reporting material weaknesses to appropriate level management. Part I gives details of controls assessed and Findings A. and B. contain details on identified material weaknesses.

Potential Benefits of Audit. The potential monetary benefits cannot be quantified until excess inventories are turned in. Additional benefits from improving controls over depot inventory levels are detailed in Appendix B.

Summary of Recommendations. We recommend that revised guidance be issued concerning stockage levels of materiels at depot maintenance facilities, that unused communications material be removed from storage, that the depots perform quarterly reviews of materiels stored at the facilities, and that the depots identify, report, and track monetary benefits resulting from turning in excess materiels. We also recommended that depots perform physical inventories of materiels stored in the automated storage and retrieval systems and reconcile the automated storage and retrieval system data files with the maintenance shop floor system files. Additionally, we recommended that policy be issued requiring the depots to submit quarterly reports addressing the results of their annual physical inventories and the reconciliation of the automated storage and retrieval systems and the maintenance shop floor system records.

Management Comments. The Army stated it would revise stockage levels to 90 days for all material and store unused material from overhaul programs for 6 months. The Army agreed to inventory and remove unused communications materiels stored at the Tobyhanna Army Depot and that the Army depots should perform quarterly reviews of materiels stored in the automated storage and retrieval system. The Army disagreed that depots should be required to identify, report, and track monetary benefits resulting from turning in excessive materiels. The Army agreed to perform physical inventories of materiels and reconcile the automated storage and retrieval system records with the maintenance shop floor system records. The Army was establishing a policy for maintenance depots to submit quarterly reports addressing the results of the annual physical inventories and to submit quarterly reports on results of reconciliations between the automated storage and retrieval system and the maintenance shop floor system. See Part II of the report for a complete discussion of the management comments. The complete text of the management comments is in Part IV of the report.

Audit Response. We believe that the Army needs to revise guidance to prohibit the depots from procuring and storing all materiels before the start of fabrication programs. We revised our recommendation to perform quarterly reviews of stored materiels, to include a requirement to have quarterly reports reflect credits received through the Defense Business Operations Fund general ledger account. Based on the Army's comments, we deleted the recommendation to have depots track monetary benefits from turning in excess materiels. We request that the Army provide additional comments in response to the final report by August 2, 1994.

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This report was prepared by the Logistics Support Directorate, Office of the Assistant Inspector General for Auditing, Department of Defense.

Part I - Introduction

Background

DoD's FY 1993 budget for depot maintenance is about $12.9 billion. The Army's portion is about $1.8 billion for the operation of eight depot maintenance facilities. A significant portion of the Army's depot maintenance budget is for materiels used in the repair and overhaul processes at the depot maintenance facilities.

Tobyhanna Army Depot (TOAD), Tobyhanna, Pennsylvania, is responsible for the maintenance and overhaul of strategic and tactical communications and electronics equipment, including satellite communication terminals, communications shelters, and automatic test equipment. About 60 percent of the work at TOAD is fabricating items such as circuit boards, communications shelters, racks for communications shelters, and parts from sheet metal for modifying vehicles.

Tooele Army Depot (TEAD), Tooele, Utah, is responsible for the maintenance and overhaul of tactical wheel vehicles, including engines, starters, and transmissions; generators; air condition units; and rail locomotives. TEAD is on the Base Realignment and Closure Commission's realignment list. After the closure of TEAD, the maintenance mission will be transferred to the Red River Army Depot (to be accomplished over a 5-year period from 1994 to 1998). The plan is to transfer one-third of the maintenance mission each year beginning the second year of the plan (1995).

Materiels used at the maintenance depots are generally classified as consumables or reparables. Consumables are supplies consumed in use, such as repair parts and fabrication materiels. Reparables are secondary items or assemblies that can be restored to serviceable conditions through depot level maintenance. Reparables are stored and distributed by the Defense Logistics Agency (DLA) operated supply depots and are repaired through depot level maintenance. Reparables are normally exchangeable on a one-for-one basis. That is, for each reparable issued to maintenance for repair or overhaul, a serviceable reparable should be returned to supply.

Repair parts and materiels used in support of the depots are generally obtained through the DoD supply system. Common parts with a recurring need are stocked in the supply system while other parts are purchased when requirements are identified. Parts and materiels are accounted for in official accountable records while they are in the supply system and are reported in the annual financial statement of the activity having custody of them as an asset (that is, inventory). After materiels are issued from supply to maintenance, they are expensed in the year issued. The maintenance depot records the issued items on

its property records. DoD Instruction 4140.60, "DoD Materiel Management," January 5, 1993, requires depot maintenance activities that have custody of materiels to periodically inventory the materiels to ensure accuracy of property records.

Depot Maintenance Goals. In his June 30, 1990, memorandum, "Strengthening Depot Maintenance Activities," the Deputy Secretary of Defense directed the Military Departments to achieve $3.9 billion in depot maintenance savings over the 5-year period from FY 1991 through FY 1995. The "Corporate Business Plan for FYs 1992-1997" emphasizes the need to achieve a cumulative total savings of approximately $6.3 billion from FY 1991 through FY 1997. Better visibility of assets will help accomplish this objective. Through better visibility of assets and the control of materiel, inventory managers are better able to determine exact materiel requirements, determine the location of materiels, control excesses, improve the budget process, and provide maximum return on investments.

Objectives

The overall objective was to evaluate the effectiveness of internal control policies and procedures used to account for and control materiels used by Army depot maintenance facilities.

Scope and Methodology

Our review was performed at TOAD and TEAD. We concentrated on accountability and control of repair parts and consumable materiels. Our audit covered records as of June 1993 at TOAD and as of May 1993 at TEAD. At the time of our audit, the two Army depots reported total inventory balances of $64.2 million ($52.4 million TOAD and $11.8 million TEAD).

We reviewed the DoD and Army regulations concerning policies, responsibilities, and procedures for managing repair parts and consumable materiels at depot maintenance facilities. To determine if repair parts and consumable materiels were accurately accounted for and controlled on property records, we inventoried materiels on hand at the two maintenance depots. At each depot, we used the most current available records for performing the inventories. We statistically selected 135 (record-to-floor) sample locations with inventory valued at $1.04 million at TOAD and 250 (record-to-floor) sample locations with inventory valued at $804,704 at TEAD for review (see

Appendix A for statistical sampling plan). We also judgmentally selected 52 locations with inventory valued at $183,789 for a reverse sample (floor-to-record) at TOAD and 72 locations with inventory valued at $94,182 at TEAD for review. We determined unit prices by using supply records and DLA's consolidated materiel data list, which provides data such as an item's national stock number (NSN), responsible Service, source of supply, unit of issue, unit price, and item name. Our verification showed that the depots' automated storage and retrieval system (ASRS) and maintenance shop floor system (MSFS) data bases were not accurate for the items reviewed.

We reviewed FYs 1990, 1991, and 1992 internal control certifications, required by the Federal Managers' Financial Integrity Act (FMFIA), that were submitted by the depots to determine if responsible managers were identifying and reporting material weaknesses concerning the stockage, and accounting for and controlling of maintenance materiels in the annual internal control certifications. We also followed up on the implementation of recommendations from prior audit reports.

This economy and efficiency audit was performed from March 1993 through November 1993 in accordance with auditing standards issued by the Comptroller General of the United States as implemented by the Inspector General, DoD, and accordingly included such tests of internal controls as were considered necessary. Organizations visited or contacted during the audit are listed in Appendix C.

Internal Controls

Controls Assessed. We evaluated the Army's controls for ensuring that materiels at maintenance depots did not exceed authorized stockage levels and that materiels were adequately accounted for and controlled. We also reviewed the implementation of the FMFIA pertaining to the audit objectives.

Internal Control Weaknesses. The audit identified material internal control weaknesses as defined by DoD Directive 5010.38, "Internal Management Control Program," April 14, 1987. Inventory accountability was an assessable internal control unit, however, no material weakness was reported in the internal control certification. We identified internal control weaknesses in accounting for materiels and in identifying and reporting material weaknesses to appropriate level management. Recommendations A.1.a., A.1.b., A.2.b., A.2.c., B.1.a., B.1.b., and B.2. in this report, if implemented, will correct the weaknesses. Recommendations A.2.a. and A.2.d. address the potential

monetary benefits. The monetary benefits to be realized by implementing the recommendations were not quantifiable (see Appendix B). A copy of the final report will be provided to the senior officials responsible for internal controls within the Office of the Secretary of Defense and the Department of the Army.

Prior Audit Coverage

In the last 5 years, four audits focused on the accountability and control of depot maintenance materiels. The Inspector General (IG), DoD, Report No. 91-034, "Accountability and Control of Materiels at Depot Maintenance Materiels," January 29, 1991, stated that the Military Departments did not adequately account for and control materiels within depot maintenance facilities. Depot maintenance facilities were holding about $319 million (Army $2.7 million, Navy $1.9 million, and Air Force $314 million) in unrecorded materiels. We recommended that the Military Departments develop plans to inventory materiels at depot maintenance facilities. The Army concurred with the recommendation and the monetary benefits. The Navy nonconcurred with the recommendation and stated that the Navy already had proper controls in place. The Navy concurred with the monetary benefits. The Air Force concurred with the intent of the recommendation but took exception to the sampling method used to compute the value of the unrecorded materiels. During the mediation process, the Air Force agreed to perform a wall-to-wall inventory of the air logistics centers. The Air Force memorandum, Follow-up on IG, DoD, Report No. 91-034, "Accountability and Control of Materiel at Depot Maintenance Facilities," June 26, 1992, stated that the inventory had been completed and that the total cost avoidance realized from wall-to-wall inventories was $293 million.

The General Accounting Office (GAO) Report No. GAO/AFMD-93-8, "Poor Internal Control Has Led to Increased Maintenance Costs and Deterioration of Equipment," January 25, 1993, stated that internal controls did not always adequately safeguard millions of dollars of weapons and equipment during the maintenance process. Physical inventories were not performed to account for reparables at depots and the Standard Depot System's cost accounting system did not accurately record and report maintenance costs for specific job orders. GAO recommended that the Secretary of the Army direct commanders of major commands to enforce DoD and Army regulations for packaging reparables shipped to maintenance depots and to improve the accuracy of actual costs by job order in the cost accounting system. GAO also recommended that the Director, DLA, take actions to protect reparables from exposure to the elements and minimize the risk of theft and to upgrade the data and procedures used to ensure accountability for depot inventory. The DoD concurred with GAO's recommendations and took actions to correct the deficiencies.

The Army Audit Agency Report No. NR 93-453, "Defense Business Operations Fund, Depot Maintenance, Army FY 1992 Financial Statement, Tobyhanna Army Depot," February 11, 1993, stated that the depot's system of internal controls did not provide reasonable assurance that its financial information could be used to prepare financial statements free of material misstatements. Accounting records did not accurately reflect equipment data. In January 1993, instructions were issued to personnel reemphasizing the need to comply with materiel costing requirements to include identifying materiel to applicable job orders. Other agreed upon actions to be taken to strengthen controls included revising shop supervisor performance standards to include parts management responsibilities, canceling outstanding requisitions before job close-out to minimize residual materiel, and monitoring shop accountability procedures over material used on multiple programs.

The Army Audit Agency Report No. NE 89-6, "Depot Automated Storage and Retrieval System," March 24, 1989, stated that materiel stored in the ASRS by the depots was not controlled adequately. Large inventories estimated at as much as $120 million were not formally accounted for. The lack of accountability also contributed to the accumulation of about $5.8 million in excess materiels. The Army Audit Agency recommended that the Army review shop stock policies and procedures in Army Regulation 710-2, particularly the one involving a 15-day supply level, to determine if the policies and procedures needed to be changed for maintenance depots with the ASRS. The Deputy Chief of Staff, Department of the Army, agreed with the recommendation and directed the Army Materiel Command (AMC) to develop a draft policy for the management of shop stock at depot maintenance activities. The Deputy Chief of Staff also stated that the guidance would be issued in Army Regulation 750-2 by the third quarter of FY 1989 and it would address management of shop stock as it pertained to depot fabrication programs. Fabrication programs are programs in which components are manufactured.

Army Regulation 750-2, "Army Materiel Maintenance Wholesale Operations," was revised on October 27, 1989. However, it did not address the management of shop stock as it pertains to depot fabrication and maintenance programs. Shop stock is being addressed in a proposed revision to Army Regulation 750-2.

Part II - Findings and Recommendations

Finding A. Stockage of Depot Maintenance Materiels

Army depot maintenance facilities were maintaining inventory levels that exceeded authorized stockage levels. The condition occurred because maintenance facilities either did not believe that the Army's guidance on the level of authorized stockage of materiels applied to depots with fabrication programs or failed to comply with the stockage guidance, including the requirement to perform quarterly reviews of stockage levels. As a result, the depot maintenance facilities have about $45.4 million of inventories in excess of the 15-day requirement. Additionally, due to the excessive inventories, opportunities to reduce the cost of funds were lost when materiels are paid for in advance and not used timely.

Background

Army Regulation 710-2, "Inventory Management," February 28, 1992, states that support maintenance facilities are authorized a limited amount of expendable supplies and repair parts required for efficient shop operations. Such supplies are issued from a stock record account and used only for internal shop support. Stockage is to be constrained to a 15-day supply for units with a collocated supply support activity and a 30-day supply for units without a collocated supply support activity. Each shop stock line item must be reviewed at least quarterly. This regulation does not address unique situations at depots, such as fabrication programs.

Army Regulation 750-2 states that the procurement of repair parts necessary to support the maintenance of programmed reparable assets will be based on approved depot maintenance requirements. This regulation does not address the stockage of expendable supplies and repair parts at maintenance depots.

Both the TOAD and TEAD use the ASRS for storing and accounting for depot maintenance materiels. The ASRS is a mechanized storage system within the maintenance directorate. It is used for storing maintenance shop stocks and end-item subassemblies used in maintenance and fabrication programs. Materiel is stored by program control and stock item numbers and is issued when requested by maintenance shops. The ASRS maintains the on-hand inventory balances and locations of the inventory. Normally, materiels stored in the ASRS should be limited to a 15-day supply of stock, reparables awaiting

overhaul, and work-in-process (WIP). Materiel issued to the ASRS from the supply support activity is charged to a specific program. As the materiel is used, it is dropped from the ASRS records.

Materiels issued to maintenance from the supply support activity are also controlled by the MSFS which is an on-line computer system that tracks maintenance activities for shop personnel. The MSFS interfaces off-line with the ASRS through a nightly batch process. The MSFS records the receipt and issue of materiels and shows on-hand balances of materiels, by stock number, stored in ASRS and the dollar value of those materiels at program level. It also provides data for billing depot customers. On-hand quantities of materiels stored in the ASRS should agree with balances shown on the MSFS. The MSFS does not interact with the depots' supply support activity systems and stock accounts, because the MSFS is not linked to the depots' supply and accounting records and quantities on hand reported in the depots' financial statements.

Stockage Levels of Materiels

Army depot maintenance facilities were maintaining inventory levels that exceeded requirements by about $45.4 million because maintenance facilities failed to comply with the Army's guidance on the level of authorized stockage for maintenance materiels. Our analyses at TOAD and TEAD showed that the amount of materiels on hand exceeded the 15-day stockage levels, as defined by Army Regulation 710-2. TOAD and TEAD exceeded levels by 290 days and 146 days, respectively. We estimated that as much as $34.7 million of materiels should not be stored in the ASRS at TOAD and as much as $10.7 million should not be stored at TEAD.

TOAD. TOAD was maintaining an inventory level in excess of its needs. At the time of our review, the ASRS inventory for TOAD totaled 61,564 line items of materiel valued at $52.4 million. Approximately $36.5 million (an increase of about $16.5 million since 1988) of the inventory was fabrication materiels stored for customers and usable spare parts; and about $15.9 million was WIP. Fabrication materiels included items such as sheet metal, steel, iron rods, and various types of cable. Materiels for fabrication programs are procured at the beginning of programs and stored in the ASRS until they are used.

15-Day Requirement. The TOAD inventory stored in the ASRS exceeded the 15-day limit by 290 days. The ASRS data show when materiels were stored in the system and dates of last transactions. When we aged the materiels stored in the ASRS, we found that about 46,915 (74 percent) of the

61,564 line items of materiel were stored before 1993 and 26 percent were stored before 1988 (the ASRS was installed in 1987), which far exceeded the 15-day storage limit. We estimated the value of the excessive inventory to be about $34.7 million.

To determine if excessive inventory was on hand, we divided the amount of materiel used during FY 1993 by 12 months to get a monthly average of $3.6 million ($42.7 million divided by 12 months). We then divided the monthly average by 2 to get a 15-day average of $1.8 million ($3.6 million divided by 2). For any period in which the on hand inventory balance exceeded $1.8 million (15-day limit), materiel was considered excessive to current requirements. We estimated that as much as $34.7 million ($36.5 million minus $1.8 million) of materiels should not be stored in the ASRS at TOAD.

To determine the number of days that inventory levels exceeded the 15-day stockage limits, we divided the value of materiel that exceeded the 15-day limit by the storage amount used every 15 days ($34.7 million divided by $1.8 million) to get 19.3, the number of 15-day periods. We then multiplied the number of 15-day periods by 15 to get the 290 days (19.3 times 15 days) that the 15-day limit was exceeded by.

Storage Guidance. The accumulation of excessive materiels at TOAD was due to the failure of TOAD personnel to comply with the Army's guidance on the level of authorized stockage of materiels. TOAD's excessive inventory balance was also caused by buying and storing all materiels at the beginning of programs, even though the materiels may be used over a multiple-year period, and by storing materiels for customers.

Fabrication Materiels. All materiels required for future programmed work were ordered at the beginning of the program and stored in the ASRS, without regard to stockage levels. Maintenance personnel at TOAD did not believe that the 15-day stockage level limitation applied to depots with fabrication programs because orders for materiel were based on program requirements. Some materiels for fabrication programs had been stored in the ASRS for 6 years or longer.

The issue of whether the 15-day stockage levels applied to depots with fabrication programs was addressed in Army Audit Agency Report No. NE 89-6, "Depot Automated Storage and Retrieval System," March 24, 1989. The AMC stated in its response to the report that the 15-day stockage level applied to maintenance depots with fabrication programs and that Army Regulation 750-2 would be the appropriate means to delineate the guidance.

AMC stated that it was the responsibility of an installation supply activity to obtain stock for the maintenance directorate, hold inventory until required, and issue as needed or dispose of as excess. Stock that was dropped from formal accountability and held in the ASRS awaiting the start of a program was not authorized and contrary to all acceptable logistics practices.

We believe that TOAD's practice of procuring all materiels at the beginning of fabrication programs is unreasonable and increases the opportunities for accumulating excessive materiels. Furthermore, opportunities to reduce the cost of funds are lost when materiels are paid for in advance and before materiels on hand are used. Many of the items we reviewed at TOAD were available through the collocated supply support activity with its on-hand inventory of $4.4 million and by local contract purchases. It took TOAD personnel an average of 24 days to obtain materiels through the supply system and 65 days to obtain materiels by contract. For example, 6 of the 124 items in our floor-to-record random sample were stored in the ASRS for an average of 262 days before being issued to the maintenance shop floor. However, it took an average of only 13 days to acquire those items. For another 28 items, the average length of time the materiel was stored in the ASRS was 327 days. It took an average of 26 days to acquire the 28 items.

Customer Materiels. The storing of materiels for customers contributed to the excessive on-hand materiels at TOAD. TOAD was storing approximately $18 million of customer-provided materiel based on the expectation of future work orders from the customers. TOAD accounted for the materiels as if they were Government-furnished materiel obtained at no cost to the depot. Further, about $9 million of inventory was being held, but not included in the ASRS data base.

At the time of our review, approximately $9 million of materiels were being stored in the ASRS for the Satellite Communications Agency (SATCOMA). The materiels had been accumulating since 1987 from completed SATCOMA programs, and were being held for unfunded future programs. Approximately 4,400 NSNs were stored in the ASRS for SATCOMA, including items such as resistors, connectors, and bolts.

We believe that the $9 million of SATCOMA materiels should be taken out of the ASRS and returned to the DoD supply system or excessed because no active program requirement exists for the materiels. The materiels should not be held for future unfunded requirements.

Approximately $9 million of materiels were stored in the ASRS for the Communications and Electronics Command (CECOM). The materiels had been held since January 1993 for a program that is soliciting bids to perform the work.

At the time of our review, an additional estimated $9 million of materiels were being held for another CECOM program, for which bidding had not begun. The materiels had been on hand since December 1992. The materiels were obtained when a CECOM contractor went bankrupt, but were not included in the ASRS balance because they were never completely inventoried. We believe that the materiels should be inventoried and recorded on the ASRS records.

Overhead Materiels. The storing of materiels in overhead accounts also contributed to excessive materiels on hand at TOAD. Approximately $4 million of materiels (513 line items) were stored in the ASRS under overhead accounts. The overhead accounts are maintained for items that can be used on a number of programs. Materiels recorded in overhead accounts ranged from supply items and tools and test equipment, to repair parts and components. Of the 12 items recorded in the overhead accounts that we reviewed, 6 should not have been stored in the ASRS. For example, the overhead accounts included 190 respirators, NSN 4240-01-246-5404, valued at $26,515. According to the ASRS records, the respirators have not been used since December 22, 1989, the date of the last transaction. When we inquired about the requirement for the respirators, TOAD personnel advised us that 100 of the respirators would be turned in to supply with 90 maintained on hand as a safety requirement. We believe that the respirators should not be stored in the ASRS, because no requirement has existed for them in 4 years. Because many of the line items stored under overhead accounts in the ASRS do not meet the definition of overhead materiel, and because the materiels have been stored for long periods, we believe that all materiels in the overhead accounts should be reviewed and removed as appropriate.

TEAD. TEAD was maintaining inventory levels that exceeded its requirements. At the time of audit, TEAD reported about $11.8 million of materiel stored in the ASRS. The value of materiel stored in the ASRS was understated because 2,271 of the 33,674 line items in the materiel listing did not include unit or extended prices.

We were unable to determine the amount of time materiels had been stored in the ASRS because historical records showed only the date of the last transaction, not the date items were entered into the system. The ASRS at TEAD is a fairly new system. It became operational in July 1992. Before the development of a consolidated maintenance facility (CMF), materiels were accounted for in manual systems in numerous maintenance buildings. At the time of audit, materiels stored in the manual systems were being inventoried and stored in the ASRS in the CMF.

15-Day Requirement. Inventory stored in the ASRS at TEAD exceeded the 15-day limit by 146 days ($10.7 million). To determine if excess inventory was on hand, we divided the amount of materiels used during FY 1993 by 12 months to get a monthly average of $2.2 million ($26.9 million divided by

12 months). We then divided the monthly average by 2 to get a 15-day average of $1.1 million ($2.2 million divided by 2). We estimated that as much as $10.7 million ($11.8 million minus $1.1 million) of materiels should not have been stored in the ASRS.

For any 15-day period in which the on-hand inventory balance exceeded $1.1 million (15-day limit), materiel was considered excess to requirements. Using the same methodology as discussed for TOAD, we calculated that the 15-day storage limit was exceeded by 146 days.

Storage Guidance. The accumulation of excessive materiels at TEAD was due to the failure of TEAD personnel to comply with the Army's guidance on the level of authorized stockage of materiels. The applicability of existing guidance to the depot operations was not an issue at TEAD.

Quarterly Reviews

Both Army depots were not performing quarterly reviews of stockage levels of materiels stored in the ASRS as required by Army Regulation 710-2, which led to the accumulation of excessive levels of stock on hand. The lack of oversight by the Depot Systems Command (DESCOM), through required reports, contributed to noncompliance with guidance (see Finding B). Army Regulation 710-2 requires that each shop stock line item be reviewed at least quarterly to determine if the item is still required. To qualify for shop stock and continued retention, an item must have at least three demands in a controlled period to add stock and one demand to retain stock. A controlled period is 180 days. Storage of large amounts of materiel in automated systems hinders monitoring the size of depot inventories and adversely affect the visibility over inventories at maintenance depots. Additionally, it is costly to store large quantities of inventories; and funds that are being used to maintain the ASRS inventory could be used for other purposes.

TOAD. TOAD personnel were not performing quarterly reviews on materiels stored in the ASRS to determine if requirements still existed, if the materiels were slow moving, and if the materiels were obsolete. TOAD personnel believed that stockage levels were established at the beginning of fabrication programs and that the 15-day stockage level requirement did not apply; thereby making quarterly reviews unnecessary.

TEAD. TEAD personnel did not perform quarterly reviews on materiels stored in the ASRS, which resulted in the accumulation of the large quantity of materiels identified in this report. TEAD personnel informed us that the reason the quarterly reviews were not performed was because of a shortage of personnel.

Conclusion

The two Army depots did not comply with Army guidance as it relates to level of authorized stockage of maintenance materiels; as a result, the depot maintenance facilities have about $45.4 million of inventory in excess of the 15-day authorized stockage level. The depots did not comply with inventory management procedures because of a disagreement as to the applicability to fabrication materiels and a shortage of personnel. Additionally, inventory levels were excessive because the depots were storing customer supplied materiels in the ASRS. Materiels were allowed to accumulate because quarterly reviews were not performed to determine if a demand for materiels stored in the ASRS still existed and if materiels were slow moving or obsolete. When large amounts of materiels are stored in automated systems at maintenance depots, they lose their visibility and are not available to the supply system item managers to meet other known requirements. Additionally, when materiels are bought before materiels on hand are used, opportunities to reduce the cost of funds are lost because such purchases result in expenditures for unneeded materiels.

Recommendations, Management Comments, and Audit Response

1. We recommend that the Army Deputy Chief of Staff for Logistics revise Army Regulation 750-2 concerning stockage levels of materiels at depot maintenance facilities. The guidance should state the number of days of supply of shop stock that can be maintained on hand by maintenance depots with fabrication programs. Additionally, the guidance should:

a. Prohibit the depots from procuring and storing all materiels before the start of fabrication programs.

b. Require the depots to discontinue the practice of storing materiels for customers' future programs.

Management Comments. The Army stated that the depots should not be prohibited from procuring and storing materiels before programs start and that appropriate stockage levels for fabrication versus normal mission materiel must be determined. However, the Army stated that the current draft revision to

Army Regulation 750-2 would allow up to 90 days stockage of all types of materiel. The Army stated that for storing materiels for customers' future programs, an alternative would be to allow for the storage of materiels for 6 months, with disposition determined at that time. See Part IV of this report for the complete text of the Army's comments.

Audit Response. We consider the issuance of guidance allowing up to 90 days stockage of all types of materiels to be reasonable. However, any exception to the 90 days should be requested in writing by the depots. We do not believe that the policy of allowing maintenance depots with fabrication programs to procure and store all materiel required for the programs before the start of the programs to be reasonable. We consider the Army's alternative of allowing the storage of materiel for customers' future programs for up to 6 months, with disposition at that time, to be reasonable. However, we do not believe that the maintenance depots should be allowed to store materiels for customers' with no known requirements for the materiels, for an unlimited time. We request the Army to reconsider its position and provide comments to the recommendation in response to the final report. The response should state specific dates for completing the agreed-upon actions.

2. We recommend that the Commander, Depot Systems Command, direct the:

a. Communications and Electronics Command to remove the Satellite Communications Agency's materiels that are being stored in the automated storage and retrieval system (ASRS) at the Tobyhanna Army Depot and return them to the DoD supply system or excess them.

b. Tobyhanna Army Depot to inventory and record materiels in the ASRS that were obtained from the Communications and Electronics Command's contractor that went bankrupt.

c. Tobyhanna Army Depot to review the propriety of storing materiels in the ASRS under overhead accounts. The materiels should be inventoried and removed from maintenance if they can be readily obtained from the supply system.

d. Tobyhanna Army Depot and Tooele Army Depot to perform quarterly reviews of materiels stored in the ASRS to determine if a demand continues to exist for the materiels. Special emphasis should be placed on reviewing materiels that have been stored for long periods. If materiels are no longer required for ongoing programs, those materiels should be made visible to the item managers. Quarterly reports should be submitted to the Depot Systems Command for the purpose of monitoring the stockage levels of materiels at the depot maintenance facilities. Furthermore, report

through the quarterly report the credits recieved through the Defense Business Operations Fund general ledger account.

Management Comments. The Army concurred with draft report Recommendations A.2.a., A.2.b., A.2.c., and A.2.d. and stated that Headquarters, DESCOM, SATCOMA, and TOAD are working together to remove materiel from the ASRS. The Army also stated that overhead accounts, which have materiels stored under them, will be purged. Additionally, the Army stated that Revision 1 to the Management and Operations Policy for the ASRS, dated March 7, 1994, directs the depots to provide reports on materiel stored in ASRS over 180 days, materiel stored against inactive programs, and materiels stored in overhead accounts.

The Army nonconcurred with draft report Recommendation A.2.e. to track and report monetary benefits resulting from turning in excessive materiels. The Army stated that the Depot Systems Command already had visibility of credits granted by inventory control points for excessive materiels that the depots turn in through the Defense Business Operations Fund general ledger account. See Part IV of this report for the complete text of the Army's comments.

Audit Response. We revised final report Recommendation A.2.d. because quarterly reports would provide the visibility of excess materiels that the depots are turning in for credit by the inventory control points through the Defense Business Operations Fund general ledger account. Based on the Army's comments, we deleted draft report Recommendation A.2.e., because the Depot Systems Command already has visibility of credits granted by the inventory control points to the depot through the Defense Business Operations Fund general ledger account. We request that the Army provide comments on the revised recommendation and a specific date for completing any agreed-upon action in its response to the final report.

Finding B. Accounting for and Controlling Materiels

The Army depot maintenance facilities had inadequate accountability and control of materiels. The condition occurred because the depots did not perform the required annual physical inventories and reconciliations of the quantities and values of materiels stored in the automated storage and retrieval systems with the maintenance shop floor systems. Additionally, the depot management of inventory was not monitored by higher level management. As a result, the inventory records at the Tobyhanna Army Depot had an error rate of 15 percent ($2.7 million) and an error rate of 14 percent ($1.89 million) at the Tooele Army Depot, which increased the opportunity for theft or loss of materiels without timely detection.

Background

Inventory control is defined as the control of merchandise, materiels, and goods in process by accounting and physical methods. Accounting control involves the proper recording and reporting of inventories. Physical control involves the physical movement of inventories and consists of proper safeguards for storing, handling and issuing. An effective inventory control system is important to ensure that adequate materiels, parts, and supplies are available to maintain an efficient level of operations and to meet the demands of customers. An effective system also identifies slow moving, defective, and obsolete goods, which prevents loss through waste, damage, or pilferage. Such controls also ensure the actual existence of the physical quantities and values shown in the inventory records. Through an inventory control system, materiels not needed for ongoing requirements at a depot can be made available to supply system item managers for redistribution to meet other known requirements.

Criteria. DoD Instruction 4140.60, "DoD Materiel Management," January 5, 1993, establishes policy to all DoD Components for DoD materiel management. The Instruction states that the organization having physical custody of materiels is responsible for the care and safeguarding of the materiels. Further, the organization having physical custody of the materiels shall maintain records of on-hand balances by individual storage locations, and physical inventories will be conducted and appropriate actions taken to ensure that the on-hand quantity and the total item property record quantity agree. All categories of property, including sensitive, pilferable, and special interest items, held in stock shall be inventoried at least once annually.

Army Regulation 735-5, "Policies and Procedures for Property Accountability," February 28, 1992, states that all property acquired by the Army must be accounted for in formal records, from the time of acquisition until ultimate consumption or disposal. Accounting records should be accurate and show the balances of on-hand assets. An accountable officer appointed, in writing, by the installation commander or activity head is responsible for keeping formal records and documents of property such as identification data, gains, losses, due-ins, due outs, and balances on hand or in use.

DESCOM policy memorandum, "Establishment of Management and Operations Policy for Automated Storage and Retrieval Systems at U.S. Army Depot System Command Maintenance Depots," November 5, 1992, states that to enhance the control of materiels stored in the ASRS, it is important that a reconciliation be made between the ASRS and the MSFS files. The reconciliation is required at least twice a week. The inventory balances of both the ASRS and the MSFS should agree. If a variance exists, a physical inventory is to be performed to correct the imbalance. DESCOM policy also requires that a physical inventory be performed of all materiels stored in the ASRS using the principles of cyclic inventory as outlined in Army Regulation 710-2.

Accounting and Controlling

The Army depot maintenance facilities were inadequately accounting for and controlling the stockage of maintenance materiels. This occurred because the depots did not perform the required annual physical inventories and reconciliations of the quantities and values of materiels stored in the ASRS and the MSFS. Additionally, responsible personnel were not being held accountable for their actions through effective oversight by higher level management.

Physical Inventory Accuracy. The accuracy of the inventory records needed improvement.

TOAD. The inventory records for accountability and control of materiels stored in the ASRS at TOAD were inaccurate. For our physical inventory, we randomly selected 135 sample locations with inventory valued at $1.04 million from a universe of 14,160 locations (61,564 items valued at $52.4 million) to determine if quantities on hand matched those identified in the ASRS records (see Appendix A). We selected 45 locations with inventory

having a $0 extended value, 45 locations with $1 to $5,000 extended value, and 45 locations with $5,001 and higher extended value. Because many items in the ASRS location listing did not have extended dollar values, we selected some of the items with zero dollar value for review. We compared the balance shown on the ASRS record with a physical count of the items stored in the ASRS.

The inventory records and our physical inventory count for the 135 sample locations showed an error rate of 27 percent. About 19 percent of the sample locations were overstated (the ASRS records showed more than the physical count of the items at the locations) and 8 percent of the sample locations were understated (the ASRS records showed less than the physical count). The dollar value of the errors was approximately $204,000 or 20 percent of the dollars reviewed. The overstated amount was about $192,000 and the understated amount was about $12,000. However, applying appropriate statistical weighting to the sample, we calculated that the number of errors in the universe to be about 2,170 (15 percent) totaling about $2.7 million (see Appendix A).

We noted a similar variance in a judgmentally selected reverse sample (floor-to-ASRS records) at 52 locations, of items located on the maintenance shop floor. The 124 sample items, valued at $183,789, were counted and matched against the ASRS records. Inventory records for 30 (24 percent) of the sample items, valued at $11,661 (about 6 percent), were inaccurate.

TEAD. The inventory records for accountability and control of materiels stored in the ASRS at TEAD were inaccurate. We randomly selected for review from multiple storage areas 250 (125 low-dollar value and 125 high-dollar value) locations, contents valued at $804,704, from a universe of 33,674 locations, valued at about $11.8 million (see Appendix A). The low-dollar value sample covered items with extended values of $1 to $899 and the high-dollar value sample covered items with extended values of $900 and higher. We compared the balance shown on the ASRS records with a physical count of the items stored in the ASRS.

Generally, the materiels stored in the ASRS in the CMF were accurately accounted for. However, materiels stored in other storage areas were inadequately accounted for. The inventory records and physical inventory count of 250 sample locations showed an overall error rate of 17 percent. About 12 percent ($56,512) of the sample locations were overstated (the ASRS records showed more items on hand than were physically counted at the sample locations) and 5 percent ($12,746) of the sample locations were understated (records showed less items on hand than were physically counted). The dollar value of the errors, approximately $69,258, was about 9 percent of the value of the 250 locations reviewed. However, applying appropriate statistical weighting to the sample, we projected that the universe could have about 4,833 errors (14 percent) valued at $1.89 million (see Appendix A).

We noted a similar variances in a judgmentally selected reverse sample (floor-to-ASRS records) at 72 locations, of items located on the maintenance shop floor. The 70 sample items, valued at $94,182, were counted and matched against the ASRS records. Inventory records for 58 (80 percent) of the sample items were inaccurate. Of the 58 items, 12 (17 percent) were overstated by $13,148 and 46 (64 percent) were understated by $40,664.

Performing Physical Inventories. TOAD and TEAD were not correcting the inaccuracies in the ASRS regarding quantities and values of on-hand inventories because the required annual physical inventories of materiels stored in the ASRS were not being performed. DoD Instruction 4140.60 states that all categories of property held in stock shall be inventoried at least once annually.

TOAD. According to personnel at TOAD, annual physical inventories were not performed of materiels stored in the ASRS during FY 1993 because the depot did not have personnel to perform the inventories. Only a limited physical inventory was being performed of materiels stored in the mini-load section (13,224 trays) of the ASRS. Two trays were inventoried per day. The rate of two trays per day would result in about 500 trays being inventoried annually, assuming 250 work days per year. At this rate, it would take in excess of 26 years to inventory the 13,224 trays. The records for the inventories taken were incomplete because they lacked the stock numbers of the items inventoried or adjustments made to the records. Additionally, the data were not summarized into any type of useful reports.

TEAD. According to TEAD personnel, annual physical inventories were not performed of materiels stored in the ASRS during FY 1993 because of a shortage of personnel. Depot personnel advised us that 10 locations were selected each day for physical inventory; however, records of the inventories were not available for review.

The performance of annual wall-to-wall physical inventories may not be reasonable. Nonetheless, physical inventories are required to be performed for the care and safeguard of materiels. An annual random statistical sample of inventory or some type of cyclic inventory is acceptable. Reducing the size of the inventory to a 15-day stockage level would greatly reduce the effort involved in performing the required inventories.

Reconciling the ASRS and the MSFS. TOAD and TEAD were also not correcting the inaccuracies in the ASRS regarding the quantities and values of on-hand inventories because the ASRS records were not reconciled with the MSFS records. With an inventory accuracy error rate of 15 percent for TOAD and 14 percent for TEAD, the depots could not effectively use the ASRS or the MSFS as a tool to manage materiels issued to maintenance.

TOAD. Reconciliations were not being performed at TOAD because of the resource requirements. In November 1992, TOAD personnel requested a waiver from DESCOM to deviate from the reconciliation requirements. The request stated that one reconciliation would require 63 hours of computer time; and employees would have to be available continuously throughout the routine to monitor communication lines and to perform required restart procedures. TOAD personnel stated that the ASRS would not be available for normal mission actions during the reconciliation. Additionally, an alternate method of reconciliation using an off-line system was being utilized. The alternative procedure required only 7 hours per reconciliation and it could be processed unattended during offshift hours or on weekends. At the time of our audit, DESCOM had not responded to the TOAD request for waiver. When we contacted DESCOM concerning the waiver, DESCOM personnel stated that they had not received the request. We provided them with a copy of the request and were advised that they would review it and provide a response to TOAD.

When we asked to review the off-line system reconciliation, TOAD personnel informed us that the reconciliation had not been run. TOAD personnel ran the reconciliation during our visit. We reviewed the results of the reconciliation and found that because of program errors, TOAD management was able to use only one portion of the reconciliation. That portion identified approximately 3,100 instances where the ASRS reflected no balance and the MSFS reflected a balance. TOAD management deleted the 3,100 lines of inventory from the MSFS without performing a physical inventory to verify the zero balances. The dollar value of the deleted items was not readily determined. Because the items were considered consumed and were not on formal accountable records, as an inventory should be, the items were deleted and an inventory loss was not reported on the TOAD inventory records or financial statements.

We performed a limited comparison of the ASRS and the MSFS records and found variances. For example, the MSFS showed that two analyzers (NSN 6625-01-355-8563), valued at $15,600 each, were on hand. The ASRS showed that no analyzers were on hand. A reconciliation of the ASRS and the MSFS data bases would have detected the variance. A physical count showed that the analyzers were not on hand.

TEAD. Reconciliations were not being performed at TEAD twice weekly, as required by DESCOM policy, because personnel believed that once a week was adequate. Personnel at TEAD stated that reconciliations of the ASRS records to the MSFS records were performed once a week, but only for items stored in the CMF building. No reconciliations of the ASRS records with the MSFS records were performed for materiels stored in other buildings. For example, the MSFS showed that eight vehicle hood latches (NSN 2510-01-152-7764), valued at $930.98 each, were on hand. The ASRS showed that no hood

latches were on hand. If a reconciliation of the ASRS and MSFS data bases had been performed, the variance would have been detected. A physical count showed that the hood latches were not on hand.

Accountability and Reporting Requirements. Personnel at the two depots did not comply with DoD and the Army's guidance concerning the accountability and control of materiels because responsible personnel were not being held accountable for their actions. To effectively account for and control materiels stored in the ASRS, DESCOM requires the depots to perform reconciliations of the ASRS and the MSFS records, quarterly reviews of inventory levels, and physical inventories. However, responsible personnel at the depots are not required to submit any reports to higher level management. This has resulted in the required reviews not being performed.

The lack of accountability and control of materiels at maintenance depots is an ongoing issue. Army Audit Agency Report No. NE 89-6 stated that inventories stored in the ASRS, valued at as much as $120 million, were not adequately accounted for and controlled. Our audit showed that this problem still exists. We believe that DESCOM should take an active role in monitoring the management of materiels at the depots. We believe that DESCOM should require the depots to perform the required annual physical inventories, reconcile the ASRS and the MSFS records, and report the results of those actions in their quarterly reports to DESCOM. This would allow DESCOM to monitor inventory levels and ensure accountability and control of the materiels.

Conclusion

TOAD and TEAD did not comply with the DoD Instruction 4140.60 and Army Regulation 735-5 as they relate to inventory management; and as a result, they did not adequately account for and control depot maintenance materiels. The inventory records at TOAD had an error rate of 15 percent ($2.7 million) and the records at TEAD had an error rate of 14 percent ($1.89 million) because annual physical inventories were not performed as required. Additionally, the ASRS records and MSFS records were not reconciled. The depots failed to follow proper procedures because of the lack of resources required to perform the physical inventories and reconciliations. Reducing the size of the inventories to the 15-day stockage level (Finding A) would help alleviate the resource requirement. Proper procedures were not followed because responsible personnel were not required to report to higher level management on how well materiels were being managed. Without accurate inventories, proper management decisions cannot be made and unauthorized diversion of assets could go undetected.

Recommendations, Management Comments, and Audit Response

1. We recommend that the Commander, Depot Systems Command, direct the Tobyhanna Army Depot and the Tooele Army Depot to:

a. Perform physical inventories of materiels stored in the automated storage and retrieval system (ASRS). Annual random statistical sampling or principles of cyclic inventory are acceptable methods of performing inventories.

b. Reconcile the ASRS records with the maintenance shop floor system (MSFS) records to verify the accuracy of inventory records. Physical inventories should be performed to correct any deficiencies.

Management Comments. The Army agreed with the recommendations, and stated that the March 7, 1994, Revision 1 to the Management and Operations Policy for the ASRS at U.S. Army DESCOM Maintenance Depots directs the depots to inventory the ASRS and to reconcile the MSFS with the ASRS. See Part IV of this report for the complete text of the Army's comments.

Audit Response. The Army's comments to the recommendations are responsive, however, we request that the Army provide specific dates for implementing the recommendations in its response to the final report.

2. We recommend that the Commander, Depot Systems Command, issue policy requiring the maintenance depots to submit quarterly reports addressing the results of their annual physical inventories and the reconciliation of the ASRS and the MSFS records.

Management Comments. The Army agreed with the recommendation and stated that Revision 2 to the Management and Operations Policy for ASRS at DESCOM Maintenance Depots will require depots to submit quarterly reports on results of reconciliations between the ASRS and the MSFS. The estimated completion date is the first quarter of FY 1995.

Part III - Additional Information

Appendix A. Statistical Sampling Plan

Our audit covered records as of June 1993 at TOAD and as of May 1993 at TEAD. TOAD reported an inventory balance of $52.4 million and TEAD reported an inventory balance of $11.8 million. The inventory records were used to randomly select items for performing physical inventories.

We used a two-stage stratified random sample to determine the frequency and value of variance between depot records and materiels in floor storage locations at both audit locations.

TOAD. The initial design used a data base of 14,160 locations (61,564 items valued at $52.4 million) that TOAD supplied to the IG, DoD, on June 3, 1993. The Quantitative Methods Division (QMD) developed a two-stage random sample design. The universe data break down is shown in Table A.1.

Table A.1. Universe Stratum

Stratum	Locations	Value (million)
$0.00	1,505	$ 0.00
$1.00 - $5,000	11,586	5.93
$5,001 and higher	1,069	46.49
Total	14,160	$52.42

QMD planned a sample of 270 locations, assuming a coefficient of variability of 1.0, using a 90 percent confidence level and an expected margin of error of 10 percent. QMD allocated 90 locations to each stratum with the plan to examine the first 45 in each stratum, make an evaluation of the results and determine whether to complete the sample as designed.

Based on available auditor resources and time, we decided to halt data collection after collecting information on the first 45 locations in each of the three stratum. The total sample size was 135 versus the planned 270. The sample execution turned up two anomalies that prevented its use for statistical projection, with

precision at the planned 90 percent confidence level. The items at the sample locations included some incorrect pricing information (costs per 100 or 1,000 items were used as unit prices) and the file reported only one project control number (PCN) per sampled national stock number, but 25 of the 135 sampled locations had items with multiple PCNs per national stock number. TOAD personnel could not reconstruct the data needed to correct the problems. Therefore we are not making statistical projections and are only reporting a qualified estimate of the overages and shortages at TOAD. The sample results indicate overages at about 1,460 storage locations ($2.6 million) and shortages at about 710 storage locations ($97,000). The estimated percentage of variance is 15 percent (2,170 divided by 14,160) totaling $2.7 million ($2.6 million plus $97,000).

TEAD. The depot's inventory listing showed that inventory was stored in 33,674 locations within the depot. The audit team identified 236 locations out of the 33,674 locations with inventory that had an extended value of $900 or more. Subsequent examination of the inventory list identified 2,271 locations with inventory for which no unit price data were available.

QMD stratified the locations with inventory with an extended value of $900 or more and locations with inventory with an extended value of less than $900. The target sample size was set at 250 to 270 locations, assuming a 90 percent confidence level, 10 percent expected margin of error, and a 1.0 coefficient of variability. A total of 125 locations were allocated to each stratum.

The analysis followed the two-stage design of the sample. QMD computed estimates for the two strata, those below $900 and those $900 and greater. The estimates indicate how often the physical count did not reconcile with inventory records and reflect an overstatement or understatement of materiel on hand, and the value of the overage or shortage. Because no cost data existed for 2,271 locations, cost projections reflect results for only 31,403 locations (see Tables A.2. and A.3.).

Table A.2. Number of Overages and Shortages

	Point Estimate	Lower Bound	Upper Bound
Overages	2,638	1,339	3,937
Shortages	2,195	971	3,419
Total	4,833	2,310	7,356

Table A.3. Value of Overages or Shortages (million)

	Point Estimate	Lower Bound	Upper Bound
Overage	$1.619	$1.576	$1.662
Shortages	0.274	0.267	0.280
Total	$1.893	$1.843	$1.942

We estimated that between 1,339 and 3,937 of the 33,674 locations will include inventory overages valued between $1.576 million and $1.662 million. We also estimated that between 971 and 3,419 of the 33,674 locations will include inventory shortages valued between $0.267 million and $0.280 million. The projected percentage of variance is 14 percent (4,833 divided by 33,674) totaling $1.89 million ($1.619 million plus $0.274 million).

Appendix B. Summary of Potential Benefits Resulting from Audit

Recommendation Reference	Description of Benefit	Amount and/or Type of Benefit
A.1.a.	Internal Control. Department of the Army will implement policies and procedures for procuring and storing depot maintenance materiels.	Nonmonetary.
A.1.b.	Internal Control. Department of the Army will implement policies and procedures for procuring and storing depot maintenance materiels.	Nonmonetary.
A.2.a	Economy and Efficiency. Army would reduce operating and maintenance cost of storing materiels by making them available to the item managers for other requirements.	Funds Put to Better Use. Monetary benefits cannot be quantified (see Recommendation A.2.d.).
A.2.b.	Internal Control. Depot will implement internal control to comply with Army guidance for accounting for and controlling materiels.	Nonmonetary.
A.2.c.	Internal Control. Depots will implement internal controls to comply with the Army guidance for storing materiels in the ASRS.	Nonmonetary.

Recommendation Reference	Description of Benefit	Amount and/or Type of Benefit
A.2.d.	Economy and Efficiency. The depots will be able to reduce the operating and maintenance costs of storing materiels and making assets available to item managers to satisfy other known requirements.	Funds Put to Better Use. The potential costs avoidance cannot be determined until TOAD performs quarterly reviews of its $34.7 million of excessive materiels and TEAD performs reviews of its $10.7 million of excessive materiels. Materiels should be turned in to supply item managers for materiels return credit.
B.1.a.	Internal Control. The depots will implement internal controls to comply with guidance for performing annual physical inventories.	Nonmonetary.
B.1.b.	Internal Control. The depots will implement internal controls to comply with the Army guidance for reconciling ASRS with MSFS data bases.	Nonmonetary.
B.2.	Internal Control. The Army will issue policy concerning the submission of quarterly reports on the accountability and control of materiels.	Nonmonetary.

Appendix C. Organizations Visited or Contacted

Office of the Secretary of Defense

Under Secretary of Defense for Acquisition and Technology, Washington, DC

Department of the Army

Office of the Deputy Chief of Staff for Logistics,
Washington, DC
Headquarters, Army Materiel Command, Alexandria, VA
Communications and Electronics Command, Ft. Monmouth, NJ
Depot Systems Command, Chambersburg, PA
Tobyhanna Army Depot, Tobyhanna, PA
Tooele Army Depot, Tooele, UT

Department of the Navy

Office of the Assistant Secretary of the Navy
(Research, Development, and Acquisition), Washington, DC

Department of the Air Force

Office of the Air Force Deputy Chief of Staff, Logistics and Engineering,
Washington, DC

Defense Agency

Defense Logistics Agency, Alexandria, VA

Appendix D. Report Distribution

Office of the Secretary of Defense

Under Secretary of Defense for Acquisition and Technology
Assistant to the Secretary of Defense (Public Affairs)
Comptroller of the Department of Defense

Department of the Army

Secretary of the Army
Auditor General

Department of the Navy

Auditor General, Naval Audit Service

Department of the Air Force

Auditor General, Air Force Audit Agency

Defense Agencies

Director, Defense Contract Audit Agency
Director, Defense Intelligence Agency
Director, Defense Logistics Agency
Director, Defense Logistics Studies Information Exchange
Inspector General, National Security Agency
Inspector General, Central Imagering Office

Non-Defense Federal Organizations

Office of Management and Budget
U.S. General Accounting Office
National Security and International Affairs Division, Technical Information Center

Non-Defense Federal Organizations (cont'd)

National Security and International Affairs Division, Defense and National Aeronautics and Space Administration Management Issues
National Security and International Affairs Division, Military Operations and Capabilities Issues

Chairman and Ranking Minority Member of each of the following Congressional Committees and Subcommittees:

Senate Appropriations Committee
Senate Committee on Defense, Committee on Appropriations
Senate Committee on Armed Services
Senate Committee on Governmental Affairs
House Committee on Appropriations
House Subcommittee on Defense, Committee on Appropriations
House Committee on Armed Services
House Committee on Government Operations
House Subcommittee on Legislation and National Security, Committee on Government Operations

Part IV - Management Comments

Department of the Army Comments

DEPARTMENT OF THE ARMY
OFFICE OF THE DEPUTY CHIEF OF STAFF FOR LOGISTICS
WASHINGTON, DC 20310-0500

DALO-SMM

26 APR 1994

MEMORANDUM THRU

~~DIRECTOR OF THE ARMY STAFF~~ MICHAEL B. WILSON, LTC, GS, AR

Eric A. Orsini
Deputy Assistant Secretary of the Army

ASSISTANT SECRETARY OF THE ARMY (INSTALLATIONS, LOGISTICS AND ENVIRONMENT)

FOR INSPECTOR GENERAL, DEPARTMENT OF DEFENSE (AUDITING)

SUBJECT: Report on the Audit of Accountability and Control of Materiels at Army Depots (Project No. 3LB-0028)--INFORMATION MEMORANDUM

Not enclosed

1. This is in response to HQ, USAAA memorandum of 2 March 1994 (Tab A), which asked ODCSLOG to respond to your memorandum of 24 February 1994 (Encl to Tab A). Your memorandum requested a reply on the subject report.

2. The U.S. Army Depot Systems Command (DESCOM) position is at Tab B. The U.S. Army Materiel Command, and this office concur in the position provided by DESCOM.

FOR THE DEPUTY CHIEF OF STAFF FOR LOGISTICS:

2 Encls

for JOHN J. CUSICK
Major General, GS
Director of Supply
and Maintenance

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OFC. ASST SECY ARMY
(I.L&E)
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CF:
VCSA
DCSLOG
SAAG-PRF-E
DALO-ZXA

AMC (AMCIR-A) - Concur, Mr. Kurtz/274-9025 (by phone)

Mr. Dorsey/50286

DEPARTMENT OF THE ARMY
HEADQUARTERS, U.S. ARMY AUDIT AGENCY
3101 PARK CENTER DRIVE
ALEXANDRIA, VA 22302-1596

S: 22 April 1994

SAAG-PRF-E (36-2b) 2 March 1994

MEMORANDUM FOR DEPUTY CHIEF OF STAFF FOR LOGISTICS

SUBJECT: Report on the Audit of Accountability and Control of Materiels at Army Depots (Project No. 3LB-0028)

1. Enclosed is IG, DOD memorandum, dated 24 February 1994, with draft report, for your review and action.

Enclosure not included

2. As the HQDA principal official, you are required to send an information memorandum alerting the Secretary of the Army and the Chief of Staff of potentially adverse findings and recommendations which might result in embarrassment to or criticism of DA, adverse publicity, or congressional inquiry. If required, submit an information memorandum by 8 March 1994 and provide SAAG-PRF-E, room 1C711, with a courtesy copy.

3. Further, you have the responsibility for preparation of a response to this report. **Address your reply to IG, DOD (Auditing), coordinate it through DAS and SAILE by 20 April 1994 and forward it to SAAG-PRF-E by 22 April 1994 for transmission to the addressee.** When you require input from other Army elements to formulate an Army position, request that information from those organizations by separate correspondence. Send the correspondence through internal review offices of other staff or command elements, where applicable. For Army Materiel Command, contact Mr. Bob Kurzer, (703) 274-9025 concerning any required MACOM actions.

4. In your comments indicate either agreement or disagreement for each finding, recommendation, or estimated monetary benefit. If you agree, describe the corrective actions taken or planned, the completion dates for actions already taken, and the estimated completion dates for the planned actions. Agreement with monetary benefits may necessitate the recovery of resources; if so, include the status of this recovery action in the DA comments. If you disagree with any of the findings, recommendations, or estimated monetary benefits, state the specific reason(s) for disagreement and provide the revised estimates of monetary or other anticipated benefits. If appropriate, you may suggest different methods for accomplishing needed improvements.

SAAG-PRF-E (36-2b)
SUBJECT: Report on the Audit of Accountability and Control of Materiels at Army Depots (Project No. 3LB-0028)

5. For further information, contact Ms. Debra Rinderknecht at DSN 224-9450 or commercial (703) 614-9430.

FOR THE DIRECTOR:

Not enclosed

Encl

JOHN BOURGAULT
Associate Director
Audit Followup and Compliance Division

CF: (all w/encl)
SAFM-FO
SAPA-SID
SALL
SAAG-PRP
SAILE
SARD-ZAS
SAIG-OP
DACS-DM
DALO-ZXA
AMC (AMCIR-A)
FORSCOM (AFCS-IR)
TRADOC (ATIR)

COMMAND REPLY

DODIG Report 3LB-0028, Report on the Audit of Accountability and Control of Materiels at Army Depots.

Finding: A. Stockage of Depot Maintenance Materiels. Army depot maintenance facilities were maintaining inventory levels that exceeded authorized stockage levels. The condition occurred because maintenance facilities either did not believe that the Army's guidance on the level of authorized stockage of materiels applied to depots with fabrication programs or failed to comply with the stockage guidance, including the requirement to perform quarterly reviews of stockage levels. As a result, the depot maintenance facilities have about $45.4 million of inventories in excess of the 15 day requirement. Additionally, due to excessive inventories, opportunities to reduce the cost of funds were lost when materials were paid for in advance and not used timely.

Additional Facts: Tooele Army Depot will vacate the Consolidated Maintenance Facility by 30 Sep 94. They are in the process of removing materiel from the ASRSs. This response will address Tobyhanna Army Depot (TOAD). The bulk of materiel cited is customer owned stocks, bought using Procurement Appropriation (PA) dollars. PA money expires in 3 years. This materiel does not tie up Defense Business Operation Fund (DBOF) operating capital. Although recommendation 1 is not specifically addressed to DESCOM comments are provided.

Recommendation 1a. We recommend that the Army Deputy Chief of Staff for Logistics revise Army Regulation 750-2 concerning stockage levels of materiels at depot maintenance facilities. The guidance should state the number of days of supply of materiel that can be maintained on hand by a maintenance depot with fabrication programs. Additionally the guidance should prohibit the depot from procuring and storing all materiel before the start of fabrication programs.

Comment: The AR 750-2 should not unilaterally prohibit procuring and storing any materiel before program start. The current draft regulation would allow up to 90 days stockage of all types of materiel. Appropriate stockage levels for fabrication versus normal mission materiel must be determined. Whether 0, 90, or more days of supply is appropriate should be carefully weighed against the risk of potential cost overruns, lost production, standard depot system (SDS) application constraints, and DBOF funding limitations.

Alternative policy should read: For fabrication programs (WAC K0) materiel held in the ASRS will be limited to that required for accomplishment of the customer project. Projects will be reviewed at 50, 75, and 90 percent completion stages to determine need for materiels still in storage. Also, the installation supply activity (ISA) should be optimized on holding inventories for fabrication programs, given DBOF and SDS constraints, to reduce need to order some materiel at the start of programs. Several issues must be understood about materiels procured to support fabrication programs.

1. Fabrication materiel consists of raw materiel, assemblies, and components. It does not consist of common replacement items that are normally associated with overhaul programs.

2. The DBOF is not capitalized to maintain large inventory levels to support multi-year, multi-million dollar fabrication projects; whereas, the DBOF was capitalized to maintain inventory levels of common replacement parts used on repair/overhaul programs.

3. Materiels are pre-positioned to accomplish progression of work through various engineering design phases, accomplish production runs, and to preclude work stoppages.

Recommendation 1b. We recommend that the Army Deputy Chief of Staff for Logistics revise Army Regulation 750-2 concerning stockage levels of materiels at depot maintenance facilities. The guidance should state the number of days of supply of shop stock that can be maintained on hand by a maintenance depot with fabrication programs. Additionally, the guidance should require the depots to discontinue the practice of storing materiels for customers' future programs.

Comment: Again, The AR 750-2 should not unilaterally prohibit storing materiels against future programs. An alternative position would be in the best interest of the Army. Materiels could be stored for 6 month's against future requirements, with disposition determined at that time. Several instances could occur:

1. Excess customer owned materiel on one program, might be required on an imminent future program. If turned-in, the customer will be required to re-procure this item (already bought, paid for with PA money, and owned by him) for the new program. This incurs additional expense to the Army, and may require a new appropriation if the funds have expired.

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2. Also, a voluminous amount (thousands) of turn-in actions would be avoided which impact maintenance, ISA, DLA, and ICP activities as well as the DBOF financial system.

Recommendation 2a. We recommend that the Commander, Depot System Command, direct the Communication and Electronics to remove the Satellite Communications Agency's materiels that are being stored in the automated storage and retrieval system (ASRS) at the Tobyhanna Army Depot and return them to the DoD supply system or excess them.

Action Taken. Concur. HQDESCOM, SATCOMA, and TOAD are working to remove this materiel from the ASRS. Estimated completion date: end of 1st QTR FY95.

Note: The Commander, DESCOM cannot direct the Commander, CECOM to perform action. DESCOM does not have command or control of CECOM. Furthermore, CECOM does not have command and control of PM, SATCOMA. PM SATCOMA reports to the PEO, Communications, who reports directly to the AAE, not AMC.

Recommendation 2b. We recommend that the Commander, Depot System Command, direct the Tobyhanna Army Depot to inventory and record materiels in the ASRS that were obtained from Communications and Electronic Commands's contractor that went bankrupt.

Action Taken. Concur. HQDESCOM and TOAD are working with CECOM to remove these materiels from the ASRS. Estimated completion date: end of 1st QTR FY95.

Recommendation 2c. We recommend that the Commander, Depot System Command, direct the Tobyhanna Army Depot to review the propriety of storing materiels in the ASRS under overhead accounts. The materiels should be inventoried and removed from maintenance if they can be readily obtained from the supply system.

Action Taken. Concur. TOAD will remove materiels stored in overhead accounts. The overhead accounts will be purged however, this will take some time and these accounts will be reflected in the quarterly reports during that period. Estimated completion date: end of 1st QTR FY95.

Revised

Recommendation 2d. We recommend that the Commander, Depot System Command, direct the Tobyhanna Army Depot and Tooele Army Depot to perform quarterly reviews of materiels stored in the ASRS to determine if demand continues to exist for the materiels. Special emphasis should be placed on reviewing materiels that have been stored for long periods. If materiels are no longer required for ongoing programs, those materiels should be made visible to the item managers. Quarterly reports should be submitted to the Depot System Command for the purpose of monitoring the stockage levels of materiels at the depot maintenance facilities.

Action Taken. Concur. The Management and Operations Policy for Automated Storage and Retrieval System (ASRS) at U. S. Army Depot System Command (DESCOM) Maintenance Depots, Revision 1, dated 07 Mar 1994, directs the depots to provide the following reports to the headquarters: Materiel stored in ASRS over 180 days, materiel stored against an inactive program, and materiel stored in overhead accounts. These reports will be used by the DESCOM commodity managers to recommend disposition instruction for excess materiel.

Deleted

Recommendation 2e. We recommend that the Commander, Depot System Command, direct the Tobyhanna Army Depot and Tooele Army Depot to identify, report, and track the monetary benefits resulting in turning in excessive materiels. Monetary benefits resulting from turning in the excessive materiels should be reported to the Depot System Command.

Action Taken. Nonconcur. The depots should not be directed to identify, report, and track monetary benefits resulting from turning in excess materiel. DESCOM already has visibility of credit granted by the ICP to the depot through DBOF General ledger accounts.

There will be no monetary benefit from turning in customer-owned SATCOMA or CECOM contractor default materiel. SATCOMA materiel will be moved to dedicated storage within the depot ISA, with accountable records held by depot property. CECOM contractor default materiel will be capitalized in 11 accounts, moved to, and stored by DLA. CECOM will reimburse DLA for this service, incurring additional expense to the Army. There was no cost to the Army while held in ASRS.

Ideally, excess materiel from a maintenance program is transferred to another maintenance program with similar materiel requirements. If no immediate requirement exists the materiel should be turned into the ISA. Credit is not granted from the ICP until the item is turned-in to the wholesale system. Credits received, if any, are captured in the DBOF General ledger accounts.

Additionally, if turned into wholesale supply, depot maintenance incurs a Supply Support to Maintenance surcharge of $58.00 per line returned. There is a net loss when turning in an item or items with a unit price(s) totaling less than $58.00.

COMMAND REPLY

DODIG Report 3LB-0028, Report on the Audit of Accountability and Control of Materiels at Army Depots.

Finding: B. Accounting for and Controlling Materiels. The Army depot maintenance facilities had inadequate accountability and control of materiels. The condition occurred because the depots did not perform the required annual physical inventories and reconciliations of the quantities and values of materiels stored in automated storage and retrieval systems with the maintenance shop floor systems. Additionally, the depot management of inventory was not monitored by higher level management. As a result, the inventory records at Tobyhanna Army Depot had an error rate of 15 percent ($2.7 million) and an error rate of 14 percent ($1.89 million) at the Tooele Army Depot, which increased the opportunity for theft and loss of materiels without timely detection.

Additional Facts: Tooele Army Depot will vacate the Consolidated Maintenance Facility by 30 Sep 94. They are in the process of removing materiel from the ASRSs. This response will address Tobyhanna Army Depot.

Recommendation 1a. We recommend that the Commander, Depot System Command, direct the Tobyhanna Army Depot and the Tooele Army Depot to perform physical inventories of materiels stored in the automated storage and retrieval system (ASRS). Annual random statistical sampling or principles of cyclic inventory are acceptable methods of performing inventories.

Action Taken: Concur. The following excerpt from the Management and Operations Policy for Automated Storage and Retrieval System (ASRS) at U. S. Army Depot System Command (DESCOM) Maintenance Depots, Revision 1, dated 07 Mar 1994, directs the Depot to inventory the ASRS: "Depot ASRS personnel, using the principles of cyclic inventory as outlined in Army Regulation 710-2, will count selected assets of an account during a prescribed period. This procedure will effectively fulfill the requirements of an annual inventory. The physical inventory will provide a means to verify the inventory of all items stored in ASRS and will determine whether or not there is a valid requirement for this materiel to support a maintenance program."

Recommendation 1b. We recommend that the Commander, Depot System Command, direct the Tobyhanna Army Depot and the Tooele Army Depot to reconcile the ASRS records with the maintenance shop floor system (MSFS) records to verify the accuracy of inventory records. Physical inventories should be performed to correct any deficiencies.

Action Taken: Concur. The following excerpt from the Management and Operations Policy for Automated Storage and Retrieval System (ASRS) at U. S. Army Depot System Command (DESCOM) Maintenance Depots, Revision 1, dated 07 MAR 1994, requires the depot reconcile the MSFS and the ASRS: " To enhance the control of materiel stored in ASRS, it is important that a reconciliation be made between the ASRS and MSFS files. The reconciliation between the two files will be performed, at a minimum, once a week. If the reconciliation indicates that there is a variance between the two files, a physical inventory will be performed to correct any file imbalance. Also at this time, a review of the date of last activity will be made, and all materiel with a date of last activity over 6 months old will be inventoried to verify PCN, NSN, and condition code. If a discrepancy is found, the item will be sent to the owning cost center for verification and possible turn-in."

Recommendation 2. We recommend that the Commander, Depot System Command, issue policy requiring the maintenance depots to submit quarterly reports addressing the results of their annual physical inventories and the reconciliation of the ASRS and the MSFS records.

Action Taken: Concur. Revision 2 to the Management and Operations Policy for Automated Storage and Retrieval System (ASRS) at U. S. Army Depot System Command (DESCOM) Maintenance Depots will require the depot to submit quarterly reports on the results of the reconciliation between ASRS and the MSFS. Estimated completion date: 1st QTR FY95.

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