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ACCOUNTABILITY AND CONTROL OF MATERIEL
AT THE TOBYHANNA ARMY DEPOT

Report No. D-2002-003

October 4, 2001

Office of the Inspector General
Department of Defense

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Acronyms

ASRS	Automated Storage and Retrieval System
CECOM	Communications-Electronics Command
IOC	Industrial Operations Command
MSFS	Maintenance Shop Floor System
PCN	Program Control Number



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October 4, 2001

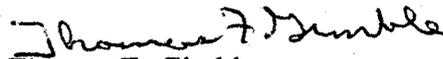
MEMORANDUM FOR AUDITOR GENERAL, DEPARTMENT OF THE ARMY

SUBJECT: Audit Report on Accountability and Control of Materiel at the Tobyhanna Army Depot (Report No. D-2002-003)

We are providing this audit report for review and comment. This is one in a series of reports being issued by the Inspector General, DoD, that discusses accountability and control of materiel at maintenance depots.

Comments on the draft report were received too late to be considered in preparing this final report. DoD Directive 7650.3 requires that all unresolved issues be resolved promptly. Therefore, if the Army does not submit additional comments by December 3, 2001, we will consider the comments received as the response to the final report.

We appreciate the courtesies extended to the audit staff. Questions on the audit should be directed to Mr. Robert M. Murrell at (703) 604-9180 (DSN 664-9180) (rmurrell@dodig.osd.mil) or Mr. Joseph M. Austin at (703) 604-9178 (DSN 664-9178) (jaustin@dodig.osd.mil). See Appendix B for the report distribution. The audit team members are listed inside the back cover.


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Office of the Inspector General, DoD

Report No. D-2002-003
(Project No. D2000LH-0285)

October 4, 2001

Accountability and Control of Materiel at the Tobyhanna Army Depot

Executive Summary

Introduction. This is one in a series of reports being issued by the Inspector General, DoD, that discusses accountability and control of materiel at DoD maintenance depots. The report discusses conditions identified in prior audits concerning the accountability and control of materiel but remain uncorrected. The DoD FY 2001 budget for depot maintenance was about \$14.2 billion. The Army portion of that amount was about \$1.57 billion for operation of five maintenance depots. A significant portion of the Army depot maintenance budget was for materiel used in repair and overhaul processes at the depot maintenance facilities.

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

Objectives. Our overall audit objective was to evaluate the effectiveness of policies and procedures that were used to account for and control materiel used by the Tobyhanna Army Depot located at Tobyhanna, Pennsylvania. We also evaluated the management control program as it related to the overall objective.

Results. The Tobyhanna Army Depot maintained materiel that exceeded requirements. Also, significant levels of inventory were not on accountable records. As a result, Tobyhanna Army Depot could have \$23.5 million of the \$30 million of materiel that was in excess of requirements. Further, 595 pallets of materiel transferred from the Sacramento Air Logistics Center and 96 boxes of computer equipment were unpriced and not included in the value of materiel onhand. Storage of large quantities of unused materiel makes maintenance inventories difficult to manage. Materiel stored for long periods of time may become lost, obsolete, stolen, or unserviceable, resulting in increased maintenance costs to customers (finding A).

The Tobyhanna Army Depot did not effectively manage or control materiel stored in the Automated Storage and Retrieval System. In addition, the Communications-Electronics Command has neither issued policies or guidance regarding management of maintenance materiel at the Tobyhanna Army Depot nor required the Tobyhanna Army Depot to submit reports for management review. As a result, inventory records at the Tobyhanna Army Depot had an estimated count error rate at about 10.1 percent of the storage locations; materiel may become lost, obsolete,

stolen, or unserviceable; and proper management decisions over the use of materiel have been hampered. Further, the lack of effective management controls at the Tobyhanna Army Depot contributed to inventories that were stored for an excessive period of time and lack of accurate inventory valuations (finding B). See Appendix A for details on our review of the management control program as it relates to management of materiel at the Tobyhanna Army Depot.

Summary of Recommendations. We recommend that the Army Deputy Chief of Staff for Logistics reassess guidance that requires depots to limit requisitioning and storing of fabrication maintenance materiel to a 60-day level and determine the appropriate number of days. We also recommend that the Commander, Communications-Electronics Command, issue guidance regarding management of the Automated Storage and Retrieval System and direct the Commander, Tobyhanna Army Depot, to price materiel and limit the storage of materiel under overhead accounts in the Automated Storage and Retrieval System. Further, we recommend that the Commander, Communications-Electronics Command, issue guidance regarding reports that should be submitted for management review and direct the Tobyhanna Army Depot to perform a reconciliation of the Automated Storage and Retrieval System records and the Maintenance Shop Floor System records.

Management Comments. We provided a draft of this report on May 29, 2001. Comments on the draft report were received too late to be considered in preparing this final report. If the Army does not submit additional comments by December 3, 2001, we will consider the comments received as the response to the final report.

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Background

This is one in a series of reports being issued by the Inspector General, DoD, that discusses accountability and control of materiel at DoD maintenance depots. The DoD FY 2001 budget for depot maintenance is about \$14.2 billion. The Army portion of that amount is about \$1.57 billion for operation of five maintenance depots. A significant portion of the Army depot maintenance budget is for purchasing materiel used in repair and overhaul processes at depot maintenance facilities.

Tobyhanna Army Depot. Tobyhanna Army Depot (Tobyhanna), located at Tobyhanna, Pennsylvania, is the largest full-service communications-electronics repair, overhaul, and fabrication maintenance facility in DoD. Tobyhanna's mission includes design, manufacture, repair, and overhaul of hundreds of communications and electronics systems. Communications-electronics systems that are supported by Tobyhanna include communications, command and control, surveillance and target acquisition, airborne electronics, intelligence and electronic warfare, electronic support equipment, and power systems.

Materiel Classification. Materiel used at maintenance depots is generally classified as consumables or reparable. Consumables are supplies consumed during use, such as repair parts and fabrication materiel. Once in use, those items lose a separate identity. Reparables are secondary items or subassemblies that can be restored to a serviceable condition through depot-level maintenance. Reparables are normally exchangeable on a one-for-one basis. For each reparable issued to maintenance for repair or overhaul, a serviceable reparable should be returned to the supply system.

Accounting For and Controlling Materiel. Inventory control is defined as the control of materiel and goods in process by accounting and physical methods. Accounting control involves proper recording and reporting of inventories. Physical control involves a physical movement of inventories and consists of proper safeguards for receiving, storing, handling, and issuing. The purpose of a physical inventory is to determine the condition and quantity of items by physically inspecting and counting the items.

Materiel Control. Materiel control is important because materiel not needed for the requirements at a depot can be made available for redistribution of other known requirements. Each maintenance facility is required to record on-hand materiel balances on shop stock records. Shop stocks are identified as demand-supported repair parts or consumable items stored within the maintenance activity that supports workloads. For accounting purposes, shop stocks are considered consumed; however, depots are required to maintain shop stock records to show on-hand inventory balances.

Management Oversight. On October 1, 1995, the Army Industrial Operations Command (IOC) became fully established as a permanent Army Materiel Command major subordinate command and the office of primary responsibility for maintenance depots within the Army. On October 1, 1998, the IOC

transferred full command and control of Tobyhanna to the Communications-Electronics Command (CECOM), headquartered at Monmouth, New Jersey.

The IOC issued a policy memorandum, "Management and Operations Policy for Automated Storage and Retrieval System (ASRS) and Standard Depot System (SDS) Maintenance at Industrial Operations Command Maintenance Depots, Revision 3" (IOC ASRS policy memorandum), August 1, 1996. ASRS is a mechanized storage system and is used for storing shop stocks.

The IOC ASRS policy memorandum includes the following inventory management requirements:

- All materiel stored in ASRS, at a minimum, will be identified by the owning cost center; national stock number/part number; program control number (PCN); quantity; acquisition source code; nomenclature; and condition code.
- Items stored in mission stocks must represent a bona fide potential requirement for the performance of a maintenance or fabrication requirement.
- Availability of materiel from previously completed fabrication orders must be determined before placing new requisitions.
- Reclaimed materiel, materiel removed from assets in maintenance, and work in process may be stored until reutilized on the maintenance program. Excess reclaimed materiel will be turned in or transferred to a valid funded program.
- Prior to closing a depot maintenance program, all associated remaining repair parts, spares, and materiel on hand will be transferred to an ongoing program or a program that will begin within 180 days or turned in to the installation supply support activity within 15 days.
 - The gaining program must be funded, open, and valid.
 - The transferred materiel must be a bona fide potential requirement of the gaining program.

Personnel at the Army Materiel Command advised us that because the IOC ASRS policy memorandum regarding management of ASRS was not canceled when full command and control of Tobyhanna was transferred to CECOM in October 1998, the policy memorandum remains in effect until CECOM issues its own policy.

Objectives

The overall objective was to evaluate the effectiveness of policies and procedures that were used to account for and control materiel used by Tobyhanna. We also evaluated the management control program as it related to the objective. See Appendix A for a discussion of the audit scope and methodology, review of the management control program, and prior coverage related to the audit objectives.

A. Stockage of Materiel at the Tobyhanna Army Depot

Tobyhanna maintained materiel that exceeded requirements. Also, significant levels of inventory were not on accountable records. The excess stockage levels occurred because Tobyhanna did not comply with the Army guidance regarding stockage levels of materiel, did not evaluate materiel to determine whether the materiel was required, and did not perform the required quarterly reviews of stockage levels of materiel. Also, the timing of purchased materiel and storage of materiel categorized as overhead PCNs contributed to excessive materiel on hand. Further, the lack of oversight and policy by CECOM contributed to excess materiel on hand. As a result, Tobyhanna could have as much as \$23.5 million of materiel in excess of requirements. Storage of large quantities of unused materiel makes inventories difficult to manage. Materiel stored for long periods of time may become lost, obsolete, stolen, or unserviceable, resulting in increased maintenance costs to customers.

Depot Maintenance Materiel Guidance

Army Regulation 750-2, "Army Materiel Maintenance Wholesale Operations," October 27, 1989, states that procurement of repair parts necessary to support maintenance of programmed reparable assets will be based on approved depot maintenance requirements ([section 5-8, page 18](#)). The Regulation does not address stockage of expendable supplies and repair parts at maintenance depots.

The Army issued interim guidance to Army Regulation 750-2 on November 28, 1994, that requires depots to limit maintenance and requisitioning of fabrication materiel at 60-day levels. That guidance remains in effect.

Army Regulation 710-2, "Inventory Management Supply Below the Wholesale Level," October 31, 1997, states that support maintenance facilities are authorized a limited amount of expendable supplies and repair parts required for efficient operations. Each shop stock item must be reviewed, at a minimum, quarterly.

The IOC ASRS policy memorandum states the following:

- The purpose of ASRS is for short-term storage of maintenance materiel, which includes work in process.
- Items are not to be stored for long periods in ASRS without known requirements.

-
- Projects will be reviewed at the 50-percent, 75-percent, and 90-percent completion stages to determine if a need exists for materiel still in storage.
 - Materiel will not be stored in ASRS in an overhead account.
 - Depots using the Standard Depot System maintenance will review all materiel that has a date of last activity more than 6 months old and verify on a monthly basis the PCN, national stock number, and condition codes.

Program Control Number. Tobyhanna assigns each job a PCN for scheduling work and tracking costs. The PCN exists for the life of the job. Materiel is ordered for a specific PCN and continues to be identified with that PCN until consumed, transferred to another PCN, or disposed. Once the PCN is closed, the associated remaining repair parts, spares, and materiel on hand should be transferred to an ongoing program or a program that will begin within 180 days or turned in to the installation supply support activity within 15 days.

Automatic Storage and Retrieval System. ASRS is a mechanized storage system within maintenance directorates and is used for storing maintenance shop stock and end-item subassemblies used for maintenance and fabrication programs. Tobyhanna uses the ASRS to store and account for depot maintenance materiel. ASRS maintains on-hand inventory balances and locations of the inventory. Materiel stored in ASRS is considered consumed for accountability purposes and identified to specific projects. At Tobyhanna, materiel is stored by PCN and stock number and is issued only at the request of maintenance shops. In compliance with the IOC ASRS policy memorandum, materiel stored in ASRS should be stored for short periods. As the materiel is used it should be dropped from the ASRS records.

Maintenance Shop Floor System. Materiel issued to maintenance activities from the supply support activity is also controlled by the Maintenance Shop Floor System (MSFS), which is an on-line computer system that tracks maintenance activities for shop personnel. The MSFS interfaces offline with the ASRS through nightly batch processing. The MSFS records issue and receipt of materiel, and shows on-hand balances by stock number of materiel stored in ASRS. The MSFS also shows the dollar value of the materiel stored in ASRS. The on-hand quantities of materiel stored in the ASRS should agree with the balances in the MSFS. The MSFS does not interact with the depot supply support activity systems and stock accounts because the MSFS is not linked to depot supply and accounting records. Therefore, quantities that are on hand are not reported in the depot financial statements.

Stockage Levels of Materiel

Tobyhanna maintained maintenance materiel that exceeded requirements. Also, significant levels of inventory were not on accountable records. Tobyhanna could have as much as \$23.5 million of materiel stored in ASRS even though requirements for the materiel at Tobyhanna may not exist.

Inventory Value. On January 12, 2001, the ASRS inventory totaled 16,586 lines of materiel, reported to be valued at about \$30 million. However, the about \$30 million value of the materiel is understated because a significant amount of materiel stored in ASRS had no extended dollar value. For example, materiel was stored in ASRS under 244 PCNs. Of the 244 PCNs, we identified 172, for which an extended dollar value was maintained. The about \$30 million value of materiel was reported from those 172 PCNs. However, 72 PCNs were recorded in ASRS without extended dollar amounts. We were unable to determine the value of materiel in the remaining 72 PCNs.

Overhead PCNs. Of the 72 PCNs without extended dollar amounts, 13 were unpriced overhead PCNs. Storage of materiel in overhead PCNs helped contribute to the accumulation of excessive materiel on hand. The IOC ASRS policy memorandum states that materiel should not be stored in ASRS in overhead PCNs. The number of overhead PCNs should be limited, and the materiel stored in overhead PCNs should be limited to low dollar value items or materiel that can be used on many programs.

Communications-Electronics Equipment. Under the Defense Base Realignment and Closure of 1995, the common-use ground-communications electronics maintenance mission was transferred from the Sacramento Air Logistics Center in Sacramento, California, to Tobyhanna. That transfer included the workload, required equipment, and maintenance materiel related to cryptographic/communications security, electro-optics and night vision, electronics warfare, navigational aids, radar, radio communications, satellite control/space sensors, and wire communications.

The equipment and maintenance materiel were shipped from the Sacramento Air Logistics Center to Tobyhanna between FY 1998 and FY 2000 and are represented by 595 pallets of materiel stored in ASRS. The 595 pallets of materiel are stored in ASRS under a number of the 13 unpriced overhead PCNs, which is not in compliance with the IOC ASRS policy memorandum. Because the pallets have not been inventoried, the content of the pallets and condition or value of the materiel stored on the pallets was unknown.

Computer Equipment. The ASRS at Tobyhanna also contained 96 boxes of computer equipment not recorded on the ASRS inventory records. The computer equipment had been stored in ASRS for more than 2 years. The computer equipment was identified as components of the Tactical Army Combat Computer System. The 96 boxes of computer equipment are valued at about \$586,000. The value of the computer equipment was obtained from the Federal Logistics Information Record. As of January 12, 2001, the equipment had not

been inventoried; therefore, the condition of the computer equipment is unknown. We were advised by Tobyhanna personnel that no requirement for the computer equipment existed at the depot. However, the computer equipment should be inventoried and turned in to the supply system.

Long-Term Storage. Materiel was stored in ASRS at Tobyhanna for long periods of time, even though the IOC ASRS policy memorandum states that the purpose of ASRS is for short-term storage and that materiel is not to be stored for long periods of time in ASRS without a bona fide requirement. Also, prior to closing a depot maintenance program, all of the associated remaining repair parts, spares, and materiel on hand shall be transferred to an ongoing program that will begin within 180 days or shall be turned in to the installation supply support activity within 15 days. The ASRS data show when materiel was stored in the system and the dates of the last transaction. When Tobyhanna personnel aged the materiel stored in ASRS, data showed that at least \$23.5 million (72 percent) of the about \$30 million of materiel had been stored in ASRS in excess of 180 days. We believe that the \$23.5 million of materiel could be excess to known requirements because some materiel had been stored in ASRS for as long as 13 years. Also, Tobyhanna personnel had not performed a review of materiel with a date of last activity more than 6 months old. Further, because the about \$30 million value of the inventory is understated, we also believe that the \$23.5 million in potential excess inventory may be understated.

Repeat Condition. The excessive accumulation of materiel was also reported by the Army Audit Agency. Army Audit Agency Report No. NR 89-6, "Depot Automated Storage and Retrieval System," March 24, 1989, states that materiel stored in ASRS was not adequately accounted for. The Army Audit Agency estimated the Army-wide amount of unaccounted for materiel to be as high as \$120 million.

Army Audit Agency Report No. AA 97-161, "Management of Repair Parts for Maintenance," March 17, 1997, states that the processes used to obtain, store, and issue parts for maintenance and fabrication programs did not provide the most cost-effective support to maintenance operations. The report also states that Tobyhanna had about \$36 million of materiel stored in ASRS, of which some of the materiel had been stored for more than 7 years.

Managing Depot Maintenance Materiel

Excessive materiel stockage levels accumulated at Tobyhanna because personnel did not comply with Army guidance regarding stockage levels of materiel, did not evaluate materiel to determine if the materiel was required, and did not perform the required quarterly reviews of stockage levels of materiel. Also, the timing of purchased materiel and storage of materiel in overhead PCNs contributed to excessive materiel on hand. Further, the lack of CECOM oversight and policy guidance contributed to the excessive materiel on hand.

Army Guidance. As a result of mediation regarding a recommendation in Inspector General, DoD, Report No. 94-117, "Accountability and Control of Materiel at Army Depots," June 3, 1994, the Army issued interim guidance to

Army Regulation 750-2 that requires depots to limit maintenance and requisitioning of fabrication materiel to a 60-day level. The Army agreed that exceptions for exceeding a 60-day level must be approved by the head of the repair facility on a case-by-case basis, and that the Army would maintain a list of those exceptions. The guidance was issued in a message on November 28, 1994. We found no written exception to the 60-day allowable limit for storing materiel in ASRS. When we inquired about the interim guidance at Tobyhanna, we were advised that Tobyhanna personnel were not aware of any interim guidance.

Although the Army issued interim guidance to Army Regulation 750-2 in November 1994, the regulation has not been revised. Confusion at Tobyhanna exists regarding whether Army Regulation 750-2 is applicable for managing depot maintenance materiel, especially for storage of fabrication materiel. Personnel at Tobyhanna believed that because much of the work is on fabrication programs, a 180-day limit for storing materiel would be more appropriate. Army Regulation 750-2 applies to a wholesale activity, but Tobyhanna personnel believe that the depot is a retail activity. We were advised by the Army Materiel Command that Tobyhanna is a wholesale activity and that Army Regulation 750-2 is applicable to Tobyhanna. However, to resolve the issue of a 60-day requirement versus a 180-day requirement, the Army should reassess the requirement and determine the number of days that should be appropriate for storing fabrication materiel.

Quarterly Reviews. Tobyhanna personnel were not performing quarterly reviews on materiel stored in the ASRS as required by Army Regulation 710-2. Army Regulation 710-2 requires that shop stock items be reviewed quarterly, at a minimum, to determine if requirements still exist. Failure to perform quarterly reviews resulted in an accumulation of the excessive materiel that was on hand. Tobyhanna personnel advised us that quarterly reviews were not performed because of a shortage of personnel.

Purchasing Materiel. Tobyhanna purchased required materiel at the beginning of projects and stored that materiel for the life of the project, even though some of the materiel may be used over a multiple-year period. Records were not available to show that Tobyhanna personnel reviewed projects at the 50-percent, 75-percent, and 90-percent completion stages to determine if a need existed for materiel in storage. Also, records were not available to show the availability of materiel from previously completed fabrication projects before placing new requisitions. Further, records were not available to show how Tobyhanna accounted for materiel that was reclaimed from repaired components or removed from assets in maintenance. Purchasing the materiel more in line with consumption would reduce the excess inventories, especially because program requirements can change.

Communications-Electronics Command Oversight and Policy. The lack of oversight regarding the management of maintenance materiel by CECOM also contributed to the problem. CECOM has not issued any policy for management of materiel or required that reports be prepared for management review.

Monetary Benefits

Tobyhanna maintained materiel valued at \$23.5 million for an excessive period of time. No activity was recorded for that materiel. Therefore, Tobyhanna could have \$23.5 million of potential monetary benefits. The exact amount cannot be determined until Tobyhanna identifies inventory excess to prevailing requirements and determines if the excess materiel can be used to satisfy other known requirements.

Conclusion

Tobyhanna did not comply with Army guidance relating to the level of the stockage of maintenance materiel stored in ASRS and did not effectively manage the materiel. As a result, the depot has an undetermined amount of materiel that has been stored for an excessive period of time, some held as long as 13 years, which exceeds requirements. Storage of large quantities of unused materiel makes maintenance inventories difficult to manage. Materiel stored for long periods of time may become lost, obsolete, stolen, or unserviceable. The materiel should be evaluated to determine if a need exists, and materiel with no known requirement should be made visible to item managers for known requirements, with excess materiel turned in. Because the materiel stored in ASRS is considered as consumed, the materiel loses visibility and is not available to the supply system item managers to meet other requirements.

A lack of accountability and control of materiel at maintenance depots is an ongoing problem at Tobyhanna. The condition was first reported in 1989 by the Army Audit Agency. The Inspector General, DoD, reported a similar condition in 1994. Our audit showed that the problem continues to exist. The Army should establish updated guidance for the accountability and control of materiel at maintenance depots, and CECOM should take a more active role in monitoring management of materiel at Tobyhanna and issue guidance on materiel management.

Recommendations

A.1. We recommend that the Army Deputy Chief of Staff for Logistics reassess guidance regarding the 60-day storage and requisitioning of fabrication materiel at maintenance depots and revise Army Regulation 750-2. The guidance should state the following:

- The appropriate number of days depots should be allowed for storing and requisitioning fabrication materiel.
- Quarterly reviews should be performed to determine if materiel is still required.

A.2. We recommend that the Commander, Communications-Electronics Command, issue guidance regarding management of the Automated Storage and Retrieval System at Tobyhanna. The guidance should include the following:

- All materiel stored in the Automated Storage and Retrieval System shall be, at a minimum, identified by owning cost center; national stock number/part number; program control number; quantity; acquisition source code; nomenclature; and condition code.
- A review of any materiel with a date of last activity more than 6 months shall be performed.
- An annual physical inventory of any materiel stored in the Automated Storage and Retrieval System shall be performed.
- Items stored in mission stocks must represent a bona fide potential requirement for performance of a maintenance or fabrication requirement.
- Availability of materiel from previously completed fabrication orders must be determined before placing new requisitions.
- Projects shall be reviewed at the 50-percent, 75-percent, and 90-percent completion stages to determine if a need exists for materiel still in storage.
- Reclaimed materiel, materiel removed from assets in maintenance, and work in process may be stored until reutilized on the maintenance program. Excess reclaimed materiel shall be turned in or transferred to a valid funded program.
- Materiel shall not be stored in Automated Storage and Retrieval System in an overhead account.
- Quarterly reviews shall be performed on materiel stored in the Automated Storage and Retrieval System to determine if requirements still exist.
- Prior to closing a depot maintenance program, any associated remaining repair parts, spares, and materiel on hand shall be transferred to an ongoing program or a program that will begin within 180 days or turned in to the installation supply support activity within 15 days.
 - The gaining program must be funded, open, and valid.
 - The transferred materiel must be a bona fide potential requirement of the gaining program.

A.3. We recommend that the Commander, Communications-Electronics Command, direct Tobyhanna to immediately:

a. Price the materiel stored in the Automated Storage and Retrieval System that has no extended dollar value or that has been added to the physical inventory, identify the value of inventory excess to prevailing requirements, and notify the Inspector General, DoD, of the corrected dollar value of the inventory and value of inventory excess to the requirements.

b. Limit the storage of materiel in the Automated Storage and Retrieval System under overhead accounts. Specifically, remove materiel obtained from the Sacramento Air Logistic Center from the overhead account program control numbers.

c. Record the Tactical Army Combat Computer System equipment on accountable records and inventory and turn in the computer equipment to the supply system because no requirement for the equipment exists at Tobyhanna.

Management Comments Required

Comments on the draft report were received too late to be considered in preparing this final report. If the Army does not submit additional comments, we will consider the comments received as the response to the final report.

B. Accounting For and Controlling Materiel

Tobyhanna did not effectively manage or control materiel stored in the ASRS, which occurred because Tobyhanna did not perform annual physical inventories and reconciliation for quantities and values of materiel stored in the ASRS with MSFS records. In addition, CECOM has neither issued any policies or guidance regarding management of maintenance materiel at Tobyhanna nor required Tobyhanna to submit reports for management review. That condition occurred because CECOM has not exercised its duties as the office of primary responsibility for Tobyhanna. As a result, inventory records at Tobyhanna had an estimated count error rate at about 10.1 percent of the storage locations; materiel may become lost, obsolete, stolen, or unserviceable; and proper management decisions over the utilization of materiel have been hampered. Further, the lack of effective management controls at Tobyhanna contributed to excessive inventories and the lack of accurate inventory valuations as noted in Finding A.

Safeguarding Maintenance Materiel

DoD Regulation 4140.1-R, "DoD Materiel Management Regulation," May 20, 1998, provides policies for DoD Components regarding management of materiel. The regulation states that the DoD Component that has physical custody of materiel is responsible to care and safeguard the materiel and shall maintain quantitative balance records by individual storage location. Also, the DoD Components shall conduct annual physical inventories and shall take appropriate actions to ensure that the on-hand quantity and total item property record agree.

Army Regulation 735-5, "Policies and Procedures for Property Accountability," January 31, 1998, states that any property acquired by the Army from whatever source, whether paid for or not, must be accounted for on formal records from the time of acquisition until the ultimate consumption or disposal of the property occurs. Also, the Army Regulation requires that all on-hand property shall be inventoried annually.

The IOC ASRS policy memorandum includes the following inventory management requirements:

- An annual physical inventory of all materiel stored in ASRS.
- A reconciliation between the ASRS and MSFS files, at a minimum monthly, to determine if files are accurate.

Similarly, the IOC ASRS policy memorandum includes the following management reporting requirements:

- A monthly total dollar roll-up for materiel stored in ASRS.
- Items stored in ASRS with no demand in the last 180 days.
- Materiel stored in ASRS against closed PCNs.
- Materiel stored against overhead PCNs.
- Potential excess materiel by PCN.

Accounting and Controlling

Tobyhanna did not effectively manage or control maintenance materiel stored in the ASRS. That condition occurred because Tobyhanna did not perform annual physical inventories in compliance with DoD and Army regulations. Also, Tobyhanna did not perform reconciliation of quantities and values of materiel stored in the ASRS with MSFS records.

Accuracy of Inventory. The inventory records for accountability and control of materiel stored in ASRS at Tobyhanna were inaccurate. For our physical inventory, we statistically selected 923 locations from a universe of 23,195 locations to determine if quantities that were on hand matched those quantities identified in the ASRS records. We compared the balance shown on the ASRS record with a physical count of items stored in ASRS.

The inventory records and our physical count showed an estimated error rate of about 10.1 percent of the storage locations. By applying appropriate statistical weighting to the sample, we calculated that the number of errors in the universe of locations to be about 2,341 (10.1 percent). An estimated 3.6 percent of the storage locations was overstated (ASRS records showed more than the physical count) and an estimated 6.5 percent of storage locations was understated (ASRS records showed less than the physical count).

Performing Physical Inventories. Tobyhanna was not correcting the errors in ASRS records regarding quantities and values of on-hand inventories because annual physical inventories of materiel stored in ASRS were not performed. DoD Regulation 4140.1-R, Army Regulation 735-5, and the IOC ASRS policy memorandum require that annual physical inventories be performed. DoD Regulation 4140.1-R states that appropriate actions shall be taken to ensure that the on-hand quantity and total item property records agree.

Annual physical inventories of materiel stored in ASRS were not being performed. According to Tobyhanna management officials, the annual physical inventories were not performed because the depot did not have sufficient personnel to perform them. We were advised that the last annual physical inventory was performed in 1998, but the results of the inventory were not

documented. Although resources may not be available to perform annual wall-to-wall inventories, physical inventories are still required to be performed to care and safeguard materiel. Alternatives that could be used are an annual random statistical sample of inventory or some type of cyclic inventory. Reducing the size of the inventory, as cited in Finding A, would greatly reduce the effort involved in performing required inventories.

Reconciling the ASRS and the MSFS. Tobyhanna was not reconciling the ASRS records with MSFS records. The IOC ASRS policy memorandum states that to enhance the control of materiel stored in ASRS, a reconciliation between the ASRS and MSFS files is required.

We were advised that the reconciliations were not being performed because of resource requirements. Reconciliations required too much computer time and ASRS would not be available for normal mission functions during the reconciliations. Nevertheless, reconciliation between the two files should be performed at a minimum of once each month. If a variance between the two files is found, an inventory should be performed to correct the imbalance. Tobyhanna should consider performing the reconciliations after normal business hours.

Reporting Requirements. Tobyhanna was not reporting the results of reconciliation reviews to higher level management because such reviews were not performed. The IOC ASRS policy memorandum requires that depots submit quarterly reports concerning the management of the ASRS inventories. We were advised that quarterly reports were not being prepared because of resource constraints. Nevertheless, quarterly reports were required so that the office of primary responsibility could monitor inventory levels and ensure accountability and control of materiel.

Management Oversight of Materiel

CECOM has neither issued any policies or guidance regarding management of maintenance material at Tobyhanna nor required Tobyhanna to submit reports for management review. That condition occurred because CECOM has not exercised its duties as the office of primary responsibility for Tobyhanna.

DoD and Army Regulations. DoD and Army Regulations collectively require that depots maintain quantitative balance records, account for materiel on formal records from the time of acquisition until the ultimate consumption or disposal of the property occurs, conduct annual physical inventories, and take appropriate actions to ensure that the on-hand quantity and total item property records agree. Those requirements were issued to ensure the care and safeguarding of materiel.

Industrial Operations Command Policy. The IOC ASRS policy memorandum requires depots to perform a reconciliation between ASRS and MSFS files and annual physical inventories of materiel stored in ASRS. In addition, to ensure

adequate oversight regarding the management of ASRS, the IOC ASRS policy memorandum requires that the following reports be provided for management review:

- A monthly total dollar roll-up for materiel stored in ASRS.
- Items stored in ASRS with no demand in the last 180 days.
- Materiel stored in ASRS against closed PCNs.
- Materiel stored against overhead PCNs.
- Potential excess materiel by PCN.

Communications-Electronics Command. On October 1, 1998, the IOC transferred full command and control of Tobyhanna to CECOM. However, since October 1998, CECOM has not issued any policies or guidance concerning implementation of DoD, Army, and IOC policies noted above or for the overall management of materiel at Tobyhanna. Further, CECOM has not been actively involved in management of the maintenance materiel at Tobyhanna nor has CECOM required Tobyhanna to submit reports concerning management of maintenance materiel for CECOM review. We do not believe that CECOM has exercised its duties as the office of primary responsibility for Tobyhanna.

Conclusion

Tobyhanna did not effectively manage or control maintenance materiel stored in the ASRS and CECOM has not issued any policies or guidance regarding the management of maintenance materiel at Tobyhanna or required Tobyhanna to submit reports for management review. We believe that effective management of maintenance materiel requires, at a minimum, Tobyhanna to perform physical inventories, reconcile ASRS and MSFS records, and prepare quarterly reviews of inventory levels. Further, we believe that CECOM should take an active role in monitoring the management of materiel at Tobyhanna. CECOM should also issue policy and guidance concerning management steps noted above and any additional policy and guidance deemed necessary for the effective management of materiel at Tobyhanna.

Because those management actions were not performed, inventory records at Tobyhanna had an estimated error rate either overstated or understated of about 10.1 percent in the storage locations. Additionally, materiel may become lost, obsolete, stolen, or unserviceable; and proper management decisions over the utilization of material have been hampered. Further, the lack of effective management controls at Tobyhanna contributed to excessive inventories and the lack of accurate inventory valuations as noted in Finding A.

Recommendations

B.1. We recommend that the Commander, Communications-Electronics Command, issue guidance regarding reports that should be submitted to management for review. The guidance should require the following reports:

- An annual physical inventory of all materiel stored in Automated Storage and Retrieval System.
- A reconciliation between the Automated Storage and Retrieval System and Maintenance Shop Floor System files, at a minimum monthly, to determine if files are accurate.
- A physical inventory should be performed to correct any deficiencies. Reports should be prepared for management review.
- A monthly total dollar value for materiel stored in the Automated Storage and Retrieval System.
- Items stored in the Automated Storage and Retrieval System with no demand in the last 180 days.
- Materiel stored in the Automated Storage and Retrieval System against closed program control numbers.
- Materiel stored against overhead program control numbers.
- Potential excess materiel by program control number.

B.2. We recommend that the Commander, Communications-Electronics Command, direct the Tobyhanna Army Depot to immediately perform a physical inventory and reconcile the Automated Storage and Retrieval System records with the Maintenance Shop Floor System records to verify the accuracy of inventory records and submit report for review.

Management Comments Required

Comments on the draft report were received too late to be considered in preparing this final report. If the Army does not submit additional comments, we will consider the comments received as the response to the final report.

Appendix A. Audit Process

Scope and Methodology

We performed the audit at the Tobyhanna Army Depot. We contacted the Army Materiel Command, the CECOM, and the Defense Logistics Agency. We concentrated on accountability and control of repair parts and consumable materiel. Our audit covered inventory records as of January 12, 2001. At the time of our audit, Tobyhanna reported a total inventory balance in the ASRS of about \$30 million.

We reviewed the DoD and Army regulations concerning policies, responsibilities, and procedures for managing repair parts and consumable materiel at the depot maintenance facility. To determine if repair parts and consumable materiel were accurately accounted for and controlled on depot property records, we inventoried a random sample of materiel on hand at the maintenance depot. We used the most current records available for performing the inventory. We statistically selected 923 of 23,195 sample locations for review. We determined unit prices by using the Defense Logistics Agency consolidated materiel data list, which provides data such as the item name, national stock number, and the unit price; Federal Logistics Information Record; and supply records.

We reviewed FY 1998, FY 1999, and FY 2000 management control certifications, required by the Federal Managers' Financial Integrity Act of 1982, that were submitted by the depot. We reviewed the certifications to determine whether responsible managers were identifying and reporting material weaknesses concerning accounting for and controlling maintenance materiel in the annual management control certifications. We also followed up on implementation of recommendations from prior audit reports.

DoD Functional Area Reform Goals. Most major DoD functional areas have also established performance improvement reform objectives and goals. This report pertains to achievement of the following functional area objective and goal.

Logistics Functional Area. Objective: Minimize logistics costs while meeting warfighters requirements. **Goal:** Reduce the logistics cost per selected weapon system per year compared to FY 1997 baseline as follows: 7 percent by FY 2000; 10 percent by FY 2001; and a stretch target of 20 percent by FY 2005. (LOG-6.1)

High-Risk Area. The General Accounting Office has identified several high-risk areas in DoD. This report provides coverage of the Defense Inventory Management high-risk area.

Use of Computer-Processed Data. We relied on computer-processed data from the ASRS and the MSFS for determining the accuracy of inventory records. Our review of system controls and the results of data tests showed an error rate that casts doubt on the data's validity. Further, we believe that the monetary valuation of materiel was understated because a significant amount of materiel stored in ASRS had no extended dollar value. However, when the data are reviewed in context with other available evidence, we believe that the opinion, conclusions, and recommendations in this report are valid.

Sample Design. The ASRS has four general types of storage. We used a stratified random sample design, selecting simple random samples of locations reported as of January 12, 2001, within each type of storage, as listed below:

Population and Sampling

<u>Type Storage</u>	<u>Locations in System</u>	<u>Locations in Sample</u>	<u>Retrieval Mode</u>
Unit Load	4,560	180	Automated
Mini-load	13,224	398	Automated
Cantilever	5,200	300	Warehouse worker
Floor – R	186	20	Warehouse worker
Floor – E/W	25	25	Warehouse worker
Total	23,195	923	

Floor-R - Floor Rack
 Floor-E/W - Floor East/West

Sample Results. The following table reports projections that are based on our sample data. The No Materiel locations are those that ASRS reported as empty and our audit verified as empty. When ASRS reported a location as empty, but we found materiel stored there, we treated that location as “understated.” The sample results are as follows:

Projections			
<u>Projection</u>	<u>Point Estimate</u>	<u>Lower Bound</u>	<u>Upper Bound</u>
Overstated (Audit < System)	832 (3.6%)	543	1,121
Understated (Audit > System)	1,509 (6.5%)	1,133	1,884
Accurate Count	4,464 (19.2%)	3,872	5,055
No Materiel at Location	<u>16,391 (70.7%)</u>	<u>15,714</u>	<u>17,067</u>
Total	23,195 (100%)	n/a*	n/a*

*Not applicable.

Note: Numbers do not sum evenly because of rounding.

The table reports the 95 percent confidence intervals. For example, the interpretation of the results for locations with overstated counts is that, with 95 percent confidence, we estimate that between 543 and 1,121 locations of the total 23,195 locations would have overstatements. Our best single measure, 832 locations, is the midpoint of that range.

Use of Technical Assistance. Statisticians from the Analysis, Planning, and Technical Support Directorate, Quantitative Methods Division, Office of the Assistant Inspector General for Auditing, provided assistance in designing a random statistical sampling plan for performing a physical inventory and in evaluating results of the physical inventory.

Audit Type, Dates, and Standards. We performed this economy and efficiency audit from September 2000 through May 2001 in accordance with generally accepted government auditing standards, except we were unable to obtain an opinion on our audit system of quality control. The most recent external control review was withdrawn on March 15, 2001, and we will undergo a new review.

Contacts During the Audit. We visited or contacted individuals and organizations within DoD. Further details are available on request.

Management Control Program Review

DoD Directive 5010.38, "Management Control (MC) Program," August 26, 1996, and DoD Instruction 5010.40, "Management Control (MC) Program Procedures," August 28, 1996, require DoD organizations to implement a comprehensive system of management controls that provides reasonable assurance that programs are operating as intended and to evaluate the adequacy of the controls.

Scope of the Review of the Management Control Program. At Tobyhanna, we reviewed the adequacy of management controls regarding storage and disposition of maintenance materiel at the depot. We also reviewed management's self-evaluation applicable to those management controls.

Adequacy of Management Controls. We identified material management control weaknesses for Tobyhanna as defined by DoD Instruction 5010.40. Tobyhanna management controls for managing depot maintenance materiel were not adequate because managers stored for long periods materiel not needed for current requirements. Also, annual physical inventories were not performed as required. Additionally, quarterly reviews to determine if materiel was needed were not performed, especially for materiel stored for long periods of time. Recommendations A.1., A.2., A.3., B.1., and B.2., if implemented, will improve management of materiel. A copy of the report will be provided to senior officials responsible for management controls within the Army.

Adequacy of Management's Self-Evaluation. Tobyhanna officials did not identify management of maintenance materiel as an assessable unit and, therefore, did not identify or report the material management control weaknesses identified by this audit. However, if management takes action on the recommendations in this report, noted deficiencies will be corrected.

Prior Coverage

During the last 5 years, the Inspector General, DoD has issued one report discussing management of repair parts for maintenance. The Army Audit Agency has also issued one report discussing management of repair parts for maintenance. In addition, we discussed one Army Audit Agency report that was more than 5 years old and that report discusses the use of the ASRS.

Inspector General

Inspector General, DoD, Audit Report No. D-2001-186, "Accountability and Control of Materiel at the Tobyhanna Army Depot – Stockage of Communications-Electronics Materiel," September 21, 2001

Army

Army Audit Agency, Audit Report No. AA 97-161, "Management of Repair Parts for Maintenance," March 17, 1997

Army Audit Agency, Audit Report No. NE 89-6, "Depot Automated Storage and Retrieval System," March 24, 1989

Appendix B. Report Distribution

Office of the Secretary of Defense

Under Secretary of Defense for Acquisition, Technology, and Logistics
Deputy Under Secretary of Defense (Logistics and Materiel Readiness)
Assistant Deputy Under Secretary of Defense (Maintenance Policy, Programs,
and Resources)
Under Secretary of Defense (Comptroller)
Deputy Chief Financial Officer
Deputy Comptroller (Program/Budget)

Joint Staff

Director, Joint Staff

Department of the Army

Under Secretary of the Army
Assistant Secretary of the Army (Acquisition, Logistics, and Technology)
Assistant Secretary of the Army (Financial Management and Comptroller)
Deputy Chief of Staff (Logistics)
Director, Army Materiel Command
Commander, Communications-Electronics Command
Commander, Tobyhanna Army Depot
Auditor General, Department of the Army

Department of the Navy

Naval Inspector General
Auditor General, Department of the Navy

Department of the Air Force

Assistant Secretary of the Air Force (Financial Management and Comptroller)
Auditor General, Department of the Air Force

Other Defense Organizations

Director, Defense Logistics Agency

Non-Defense Federal Organizations

Office of Management and Budget

General Accounting Office

Congressional Committees and Subcommittees, Chairman and Ranking Minority Member

Senate Committee on Appropriations
Senate Subcommittee 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 Reform
House Subcommittee on Government Efficiency, Financial Management, and Intergovernmental Relations, Committee on Government Reform
House Subcommittee on National Security, Veterans Affairs, and International Relations, Committee on Government Reform
House Subcommittee on Technology and Procurement Policy, Committee on Government Reform

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