Audit Report

STATUS OF THE DEFENSE LOGISTICS AGENCY
PLAN TO MEASURE INVENTORY RECORD ACCURACY
AT THE DISTRIBUTION DEPOTS USING STATISTICAL SAMPLING

Report Number 99-080 February 10, 1999

19990913 072

Office of the Inspector General
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Acronyms

CFO	Chief Financial Officers
DBOF	Defense Business Operations Fund
DLA	Defense Logistics Agency
DMRD	Defense Management Review Decision
DSS	Distribution Standard System
ICP	Inventory Control Point
WCF	Working Capital Fund

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February 10, 1999

MEMORANDUM FOR UNDER SECRETARY OF DEFENSE (COMPTROLLER)
DIRECTOR, DEFENSE LOGISTICS AGENCY

SUBJECT: Audit Report on the Status of the Defense Logistics Agency Plan to Measure Inventory Record Accuracy at the Distribution Depots Using Statistical Sampling (Report No. 99-080)

We are providing this report for information and use This is the first in a series of reports dealing with DoD inventory accounts. In preparing the final report, we considered comments from the Director, Defense Logistics Agency, on the draft report

Management comments on the draft report conformed to the requirements of DoD Directive 7650 3 and left no unresolved issues Therefore, no additional comments are required

We appreciate the courtesies extended to the audit staff. Questions on the audit should be directed to Mr James L Kornides at (614) 751-1400, extension 11, e-mail jkornides@dodig osd mil, or Mr Timothy F Soltis at (614) 751-1400, extension 13, e-mail tsoltis@dodig osd.mil. Appendix C lists the planned distribution of this report The audit team members are listed inside the back cover

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Report No. 99-080 **February 10, 1999**
(Project No 8FJ-2017.00)

Status of the Defense Logistics Agency Plan to Measure Inventory Record Accuracy at the Distribution Depots Using Statistical Sampling

Executive Summary

Introduction. The audit was performed to meet the requirements of Public Law 101-576, the "Chief Financial Officers Act of 1990," November 15, 1990, as amended by Public Law 103-356, the "Federal Financial Management Act of 1994," October 13, 1994. This report focused on DoD inventories because of their significance to the DoD consolidated financial statements and the Government-wide financial statements. This report is the first in a series of reports from our audit of the DoD inventory accounts

Inventory is the most significant DoD asset managed by the Defense Logistics Agency. The FY 1997 DoD Consolidated Statement of Financial Position reported DoD inventory at about $61.3 billion. Approximately 75 percent of the inventory is located at 20 distribution depots managed by the Defense Logistics Agency. Accurate inventory records are needed to prepare reliable financial statements and make effective supply management decisions. DoD managers are responsible for establishing policies and procedures to make sure the inventory records are accurate. According to DoD policy, statistical sampling techniques are to be used to measure the accuracy of the distribution depot inventory records to meet the goals of the logistics community (record accuracy) and the financial community (dollar value accuracy)

Objectives. The overall audit objective was to evaluate management assertions pertaining to the valuation, completeness, and existence of DoD inventory accounts and to determine whether these accounts were presented fairly and in accordance with Office of Management and Budget Bulletin No. 97-01, "Form and Content of Agency Financial Statements," October 16, 1996, as amended November 29, 1998. For this part of the audit, we evaluated the status of the DLA plan to use statistical sampling to measure the accuracy of inventory records at its 20 distribution depots. We also assessed relevant internal controls

Results. Major problems with the assignment of responsibility for keeping accountable records and the use of incompatible distribution systems and sampling plans had previously prevented the Defense Logistics Agency from adequately measuring accuracy For the most part, these problems have been corrected. However, despite increased

efforts during FY 1998 to improve sampling techniques, the Defense Logistics Agency has not implemented a sound statistical sampling plan to measure the dollar value accuracy of its inventory records at distribution depots. The revised sampling plan provides a basis for measuring record accuracy, but does not measure accuracy in dollar value stored at the depots and does not provide separate estimates of dollar value accuracy for each Military Department Working Capital Fund. Lack of an effective and efficient means of measuring the dollar value accuracy of inventory records represents a major impediment to DoD Working Capital Funds receiving favorable audit opinions.

Summary of Recommendations. We recommend that the Director, Defense Logistics Agency, design and implement a valid statistical sampling plan that achieves the goals of the DoD supply and financial management communities and provides a statistically valid measure of inventory dollar value. The plan should be designed and implemented by personnel who are familiar with financial statement requirements and have expertise in advanced sampling techniques. The plan should also be evaluated periodically to adapt to changes in DoD inventory management practices.

Management Comments. The Director, Defense Logistics Agency, concurred and stated that the Defense Logistics Agency had focused on the design, development, and implementation of a statistical sampling plan to measure inventory record accuracy. The Defense Logistics Agency would develop a valid statistical sampling plan to validate inventory dollar values for materiel stored at the distribution depots. The Director also agreed to involve personnel familiar with financial statement requirements and with expertise in advanced sampling techniques in designing and implementing the sampling plan; to devote the resources needed to complete all required counts; and to periodically evaluate and adjust the plan as needed. See the Finding section of this report for a discussion of management comments and the Management Comments section for the text of management comments.

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Background

Introduction. The audit was performed as part of our efforts to meet the requirements of Public Law 101-576, the "Chief Financial Officers (CFO) Act of 1990" (the CFO Act), November 15, 1990, as amended by Public Law 103-356, the "Federal Financial Management Act of 1994," October 13, 1994. Inventories represent a significant DoD asset that is material to the DoD consolidated financial statements and the Government-wide financial statements. Adequate management of DoD inventories is essential to preparing reliable financial statements. This report is the first in a series of reports on our audit of the DoD inventory accounts.

The FY 1997 DoD Consolidated Statement of Financial Position reported an inventory balance of about $61.3 billion and showed about $56.7 billion of materiel (prior to adjustments) on hand at DoD storage organizations. Approximately 75 percent of the on-hand materiel is located at 20 distribution depots managed by DLA. The remaining 25 percent is at several hundred storage locations throughout the United States and overseas.

DoD Inventory Management. DoD operates a massive logistics system that includes approximately 4.9 million items used by the Military Departments, DLA, and other Government agencies. Of the 4.9 million items, more than 4.3 million (almost 89 percent) are consumable items such as food, clothing, fuel, and hardware supplies. About 540,000 are reparable items such as hydraulic pumps, navigational computers, and landing gears. The DoD Inventory Control Points (ICPs), which are financed by the three Military Department Working Capital Funds (WCFs) and the DLA WCF, manage most DoD inventory.

Distribution Depots. Before FY 1992, each Military Department operated its own distribution depots. The separate distribution operations were redundant, inefficient, and costly, and resulted in unique procedures and systems that caused significant problems with inventory management. Consequently, on April 12, 1990, the Deputy Secretary of Defense approved implementation of Defense Management Review Decision (DMRD) 902, "Consolidation of Defense Supply Depots," October 24, 1989, which consolidated 24 Military Department and 6 DLA depots into a single, unified military supply distribution system operated by DLA. Because of actions by the Base Realignment and Closure Commission, the total number of depots was reduced from 30 to 20 as of September 30, 1998.

The DLA distribution depots comprise the largest concentration of DoD materiel where accountable records are maintained by a single DoD entity. Therefore, the accuracy of the depot inventory records has an impact on the DoD financial statements, especially those of the Military Department WCFs and the DLA WCF.

Distribution Standard System. During the depot consolidation process, DoD managers realized that the various incompatible distribution systems adversely affected the ability of DLA to realize the goals of consolidation. To remedy this situation, DoD has replaced the Military Department distribution legacy systems with the Distribution Standard System (DSS).

The DSS provides an environment that allows for standard distribution operations and inventory management procedures. DSS has perpetual inventory records that maintain a continuous record of the on-hand inventory balance. Using automated data transfer routines, DSS provides the ICPs with updated inventory data on quantity, location, ownership, and condition.

Audit Responsibilities. The CFO Act requires the IG, DoD, to audit the financial statements of DoD organizations. Underlying the financial statements are management assertions on the existence and occurrence, completeness, and valuation of DoD inventory. Auditors are responsible for verifying these assertions.

Accurate inventory records support management assertions regarding the existence, occurrence, and completeness of assets. These assertions pertain to whether all of the assets (such as inventories) of a DoD reportable entity (such as one of the DoD WCFs) exist at a given date and whether all transactions that occurred during a given period were included in the financial records. DLA uses statistical sampling to measure the accuracy of its distribution depot inventory records. A statistical sampling plan is acceptable, provided the sampling techniques used are statistically valid, properly applied, and produce results with adequate precision.

Objectives

The overall audit objective was to evaluate management assertions pertaining to the valuation, completeness, and existence of DoD inventory accounts and to determine whether these accounts were presented fairly and in accordance with Office of Management and Budget Bulletin No. 97-01, "Form and Content of Agency Financial Statements," October 16, 1996, as amended November 29, 1998. For this part of the audit, we evaluated the status of the DLA plan to use statistical sampling to measure the accuracy of inventory records at its 20 distribution depots. We also assessed relevant internal controls. See Appendix A for a discussion of the scope and methodology and the management control program.

Status of the Defense Logistics Agency Sampling Plan

Major problems with the assignment of responsibility for keeping accountable records and the use of incompatible distribution systems and sampling plans had previously prevented DLA from adequately measuring record accuracy. These problems have been corrected, for the most part. Despite increased efforts during FY 1998 to improve sampling techniques, DLA has not developed a sound statistical sampling plan to measure the dollar value accuracy of its inventory records at distribution depots. Although DLA has made significant progress in achieving its supply management goal, little progress has been achieved in meeting its financial management goal. DLA has not assigned personnel who are familiar with financial statement requirements and who fully understand advanced statistical sampling techniques to develop and implement an effective and efficient sampling plan. Lack of an effective and efficient means of measuring the dollar value accuracy of inventory records represents a major impediment to DoD Working Capital Funds receiving favorable audit opinions.

DoD Inventory Policies

DoD managers are responsible for maintaining accurate inventory records. Confirming inventory value in the accountable records by physical count and inspection is the most important internal control for inventories. Any of the following methods may be used for physical inventory counts:

- counting all items on hand at a given point in time, usually at the end of the fiscal year (a 100-percent or wall-to-wall inventory);
- using statistical sampling techniques to estimate the value of on-hand inventory as of the date of the sample; or
- maintaining perpetual records and testing the accuracy of those records through periodic physical inventories.

DoD Financial Management Regulation. DoD Regulation 7000.14-R, "DoD Financial Management Regulation," volume 11B, December 1994, requires that physical inventory counts provide reasonable assurance that logistics records accurately reflect the dollar value of assets stored. If inventory size prevents a 100-percent count, the Regulation requires that valid statistical sampling techniques be used to provide assurance that the dollar value recorded in the general ledger accounts is accurate, with at least a 90-percent confidence level and a precision level of plus or minus 2.5 percent.

DoD Supply Policy. DoD Regulation 4140.1-R, the "DoD Materiel Management Regulation," May 20, 1998, and DoD Manual 4000.25-2-M, "Materiel Standard Transaction Reporting and Accounting Procedures (MILSTRAP)," August 1996, establish DoD policies for inventory management.

DoD Regulation 4140.1-R requires the storage organization with physical custody of DoD materiel to be responsible for maintaining accurate inventory records and for devoting the resources necessary to complete the required inventories. The Regulation also requires annual random statistical samples to support the accuracy of logistical and financial records. DoD Manual 4000.25-2-M establishes the DoD policy that statistical sampling must be used to measure inventory record accuracy and that the sampling plans used must meet the requirements of the CFO Act and the Military Departments for validating the accuracy of property accountability records.

DLA Inventory Management Policy. DLA maintains perpetual inventory records for the approximately $90 billion* stored at its 20 distribution depots as of September 30, 1998. DLA determined that it is not feasible to conduct annual 100-percent, wall-to-wall counts of all materiel stored at its depots; instead, DLA uses statistical sampling techniques to measure record accuracy. Since FY 1996, DoD policy has been to use statistical sampling to achieve the accuracy goals of the DoD supply and financial management communities.

The supply management community is primarily concerned with how often the actual quantity of items in a particular location and condition code at a distribution depot actually match the quantity for those items in the inventory records (record accuracy). In contrast, the goal of measuring inventory accuracy for financial statement reporting is to determine how closely the aggregate dollar value of items on hand matches the dollar value in the inventory records of each reporting entity at the end of the fiscal year (dollar value accuracy).

Composition of Materiel Stored at the DLA Depots

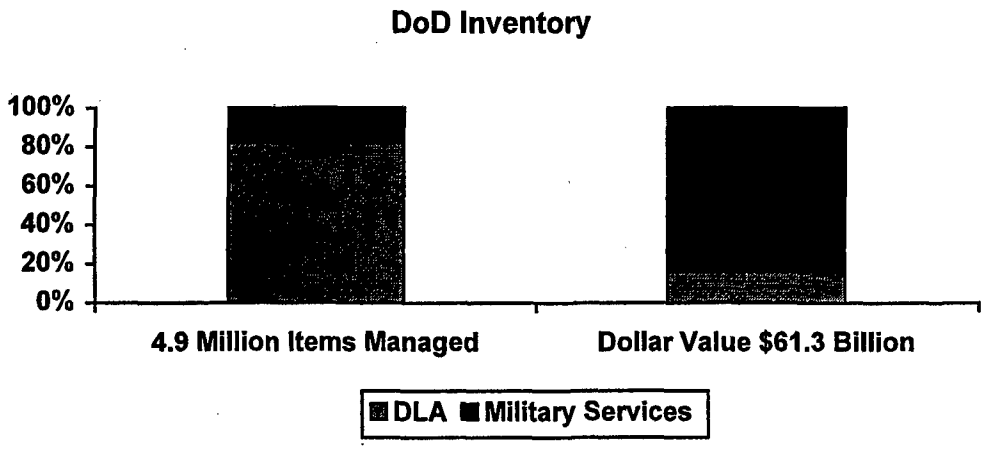
Number and Distribution of Items Stored. DLA manages about 4 million consumable items, and the Military Departments manage about 300,000 consumable and 540,000 reparable items. The distribution of the types of items managed (consumable versus reparable items) by DoD Component is shown in the following table.

* The $90 billion represents the unadjusted total value of all inventory and other property stored at the 20 DLA distribution depots at the end of FY 1998. It does not equal the total inventory value reported in the DoD consolidated financial statements because different valuation methods are used for financial statement reporting.

DoD Management of Inventory

DoD Component	Consumable Items Managed	Reparable Items Managed	Total Items Managed
DLA	4,003,000	0	4,003,000
Army	63,000	80,000	143,000
Navy	141,000	199,000	340,000
Air Force	106,000	261,000	367,000
Totals	**4,313,000**	**540,000**	**4,853,000**

The 4 million items managed by DLA represent about 82 percent of the 4.9 million total DoD inventory items. However, because DLA manages consumable items, which generally have lower unit prices, higher turnover, and more direct vendor deliveries (materiel shipped directly from the vendor to the customer), the dollar value of DLA-managed items in DoD storage organizations is relatively low. The dollar value of DLA-managed items represented about 16 percent of the total DoD inventory of $61.3 billion. The following figure illustrates these differences.



Statistical Sampling Plans In Previous Years

DLA has operated the former Military Department depots since FY 1992, but has yet to use a single statistical sampling plan to measure the inventory accuracy of all materiel stored at the depots. Because previous DoD inventory sampling plans were incomplete, incompatible, and not designed to measure dollar value accuracy, we developed our own statistical sampling plan to test the record accuracy of the FY 1996 Defense Business Operations Fund (DBOF) Financial Statements. Our results showed that an estimated 15.8 percent, or about one of every six inventory records represented by our sampling, was in error. In December 1996, the Under Secretary of Defense (Comptroller) announced that the DBOF would be realigned into separate WCFs.

DLA should manage its distribution depots as a single, unified organization. However, DLA has operated the depots as if some were still managed by the Military Departments. For example, in FY 1997, DLA used three different sampling methods to measure record accuracy. The Military Departments had developed two of those sampling methods before FY 1992. Between FY 1992 and the end of FY 1998, two factors hampered DLA efforts to implement a single sampling plan. These factors were as follows.

- Military Department ICPs maintained the accountable records for materiel stored at the DLA distribution depots.
- DLA used the Military Department distribution legacy systems and sampling plans to manage inventory records at the distribution depots.

By the end of FY 1998, these two factors had been eliminated, for the most part, as an impediment to DLA designing an effective and efficient sampling plan.

Responsibility for Maintaining Accountable Inventory Records. The DLA distribution depots are responsible for maintaining accountable records for materiel stored at the depots. This is a significant change in inventory management. In the past, when the ICPs maintained the accountable records, they were responsible for developing policies and procedures for measuring record accuracy, including the design of statistical sampling plans. The distribution depots also maintained inventory records (custodial records), and depot personnel performed physical counts and determined whether discrepancies existed. However, the ICPs selected the items to count, corrected record imbalances, conducted research into the causes of record imbalances, and were responsible for measuring inventory accuracy.

Maintaining separate inventory records contributed to inventory management problems because errors are likely to increase each time information is copied, keyed, read, and interpreted. Keeping two sets of records doubled the number of inventory transactions and required additional resources to reconcile the two sets of records.

As part of its efforts to reengineer distribution operations, DoD managers determined that each storage location should have only one set of inventory records and that the distribution depots should be responsible for keeping the accountable records for all materiel stored at the depots.

The distribution depots are responsible for ensuring that the accountable records agree with the actual physical quantities. DLA intends to achieve established inventory accuracy goals by using statistical sampling, rather than 100-percent, wall-to-wall inventory counts. Thus, DLA is responsible for subdividing the universe of materiel stored at the depots for sample purposes, selecting items to count, establishing and documenting counting procedures, defining errors, ensuring that counting procedures are followed, identifying and correcting errors, and interpreting the sample results.

Distribution Legacy Systems and Sampling Plans. Military Department distribution legacy systems remained in use at the depots from FYs 1992 through 1998, and DLA continued to use the sampling plans designed by the Military Department ICPs until the Distribution Standard System (DSS) was fully implemented. The first step in the physical inventory process is to divide the materiel stored at the depots into classes, based on type and other characteristics. Such an analysis may show, for instance, that 80 percent of the value of the inventory is stored in 20 percent of the items by quantity. Items with high turnover can also be identified; these items may have a greater influence on accuracy than slower-moving items, although items with high turnover may have a lower dollar value. Because the various legacy systems were not compatible with each other or with DSS, analyzing materiel stored at the depots for sample purposes was difficult. In addition, the Military Departments did not use sampling techniques designed to measure the dollar value accuracy of their inventory records.

At the end of FY 1998, DSS had been implemented at 18 of 20 DLA depots, which account for approximately 85 percent of the total dollar value of DoD materiel stored at the depots and over 90 percent of total distribution depot workload (receipts, issues, and redistributions). The DSS was not implemented at the San Antonio Depot, San Antonio, Texas, and the McClellan Depot, Sacramento, California, because those depots will close in FY 2001. DLA is working to reduce the number of depots from 20 to 18 and to open competition for public or private management for all but 2 of the depots.

Adequacy of the Current Sampling Plan

As discussed above, DoD has eliminated, for the most part, the two major impediments that had prevented DLA from implementing a single sampling plan to measure inventory accuracy. However, DLA has not revised the sampling plan to provide separate estimates of dollar value accuracy by financial reporting entity.

Current Sampling Plan. In response to previous audit reports that cited deficiencies in DLA statistical sampling methods, DLA revised its sampling plan in May 1998. DLA, with assistance from representatives of the Deputy Under Secretary of Defense (Logistics) and the Military Departments, approved a plan that measures record accuracy for logistical purposes based on accountability for

the records, not ownership. In the revised plan, materiel stored at the distribution depots will be divided into eight categories or strata (see Appendix B for details). Implementing the revised plan should allow DLA to obtain a statistically valid measure of record accuracy. Although proper implementation of the revised plan will achieve the supply management goal, it will not measure dollar value accuracy by reporting entity.

Separate Estimates of Accuracy by WCF. The value of the inventory stored at the DLA depots is reported on the financial statements of the three Military Department WCFs and the DLA WCF, based on the ownership of the items in storage. Between FYs 1992 and 1997, all DoD Component ICPs and distribution depots were part of DBOF, and most items stored at the depots were owned by DBOF organizations. Accordingly, a single estimate of dollar value accuracy at the DBOF level was needed to meet the requirements of the CFO Act. When the DBOF was separated into WCFs in FY 1997, separate audit opinions were required for each WCF. To comply with the CFO Act, separate projections are needed to project dollar value accuracy separately for each WCF.

A DLA official told us that the Military Departments, not DLA, should develop separate sampling plans to measure the dollar value accuracy of the DLA accountable records for all Military Department-owned materiel stored at the depots. We believe that the intent of the DoD policies and the goals of implementing DMRD 902 are best achieved through a single statistical sampling plan managed by DLA. The rationale is the same as that used by representatives of the Deputy Under Secretary of Defense (Logistics), the Military Departments, and DLA when they approved the sampling plan to achieve logistical goals.

Inability to Estimate Dollar Value Accuracy. For the reasons discussed above, the sampling plan used by DLA was not designed to estimate accuracy in terms of the dollar value stored at the depots by individual WCF, including the DLA WCF. The fact that statistical sampling techniques were not used to measure dollar value accuracy was one of the major impediments to an unqualified audit opinion on the FY 1997 DLA WCF Financial Statements. The lack of a sampling plan to measure dollar accuracy is a major impediment to DLA achieving a favorable audit opinion on its FY 1998 statements.

Development of Sampling Plan

In developing its sampling plan, DLA has not involved personnel who are familiar with financial statement requirements and who fully understand advanced statistical sampling techniques.

Personnel Involved in Design of Sampling Plan. DLA personnel involved with the design of the sampling plan were from the Defense Logistics Support Command, a subordinate DLA organization, and from the Military Department supply organizations. There was little involvement from the DLA and Military

Department financial management offices. In contrast, most private sector organizations rely heavily on their financial staffs to design and implement physical inventory procedures.

Except for some involvement by representatives from the Office of the Under Secretary of Defense (Comptroller), DLA has not involved personnel familiar with financial statement requirements in the design of the sampling plan. As a result, the sampling plan emphasizes the concerns of the logistics community. To measure record accuracy for financial statement reporting, the sampling plan must measure accuracy of the dollar value stored at the distribution depots as of the end of the fiscal year. The plan must also allow separate projections of accuracy by each financial reporting entity, with at least 90 percent confidence that the records are accurate within plus or minus 2.5 percent.

Statistical Sampling Techniques. Because of the size and composition of materiel stored at the DLA distribution depots, achieving supply and financial management goals represents a significant challenge because each goal requires different statistical sampling techniques. Each goal could be achieved using separate statistical samples; however, this would use DLA resources inefficiently. Our design of the statistical sampling plan for the audit of the FY 1996 DBOF Financial Statements showed that a dual-purpose sampling plan was feasible and highly desirable. To design a dual-purpose plan, DLA will need personnel with knowledge of advanced statistical sampling techniques.

In the past, DLA has relied on the assistance of the Quantitative Methods Division, Office of the Assistant Inspector General for Auditing, DoD, to assist in the design of the sampling plan. DoD and Military Department auditors observed all physical counts and compiled and interpreted the sample results. Management, not auditors, are responsible for developing and implementing sampling techniques to meet the requirements of the CFO Act. The Quantitative Methods Division can provide DLA with technical advice and oversight, but cannot devote the time and resources needed to design the sampling plan and interpret the results.

DLA should design and implement its statistical sampling plan in-house. Personnel with expertise in advanced sampling techniques will need to resolve the technical issues that make dual-purpose sampling difficult. Designing the sampling plan in-house will also allow DLA to modify the plan, as needed, to respond to changes in supply management practices. In the past, changes such as depot consolidation and the creation of separate WCFs had a significant impact on the sample design. DoD initiatives such as privatization, increased automation, staff reductions, asset repositioning, and changes in item management responsibilities may affect the design of future DLA sampling plans.

Effect on Other Management Assertions. Maintaining accurate inventory records by confirming the on-hand balances through periodic counts and inspection is an important inventory control. Financial statement assertions regarding the completeness, existence, and valuation of inventories cannot be fully validated without adequate assurances that inventory balances are correct.

Recommendations, Management Comments, and Audit Response

We recommend that the Director, Defense Logistics Agency, design and implement a valid statistical sampling plan that meets DoD supply and financial management requirements. Specifically,

1. The sampling plan must provide a statistically valid measure of the dollar value of materiel stored at the distribution depots and provide separate estimates for each Working Capital Fund. The sampling plan must meet the confidence and precision levels prescribed in DoD Regulation 7000.14-R, the "DoD Financial Management Regulation."

Management Comments. The Director, DLA, partially concurred and stated that the recommendation to develop a sampling plan for each WCF was not consistent with Under Secretary of Defense (Comptroller) guidance issued in November 1998 on the subject. He stated that DLA will design a sampling plan for the DLA WCF by June 30, 1999.

Audit Response. We consider management comments to be responsive to the recommendation. We agree that DLA should follow the strategy issued by the Under Secretary of Defense (Comptroller) in November 1998. That strategy requires the Under Secretary of Defense (Acquisition and Technology) to establish a physical inventory plan that integrates cycle counts and statistical sampling, with full participation by personnel in the Office of the Under Secretary of Defense (Comptroller) and the audit community. The DLA planned action to devise a sampling plan that measures dollar accuracy for all DLA-managed items stored at the distribution depots is a necessary first step leading to accurate depot records at the individual WCF level.

2. Personnel from the Defense Logistics Agency Comptroller's office and other personnel familiar with financial statement requirements must be involved in the design and implementation of the sampling plan. The Defense Logistics Agency must also devote the resources needed to count all sample items and compile the sample results.

Management Comments. The Director, DLA, concurred and stated that DLA personnel familiar with financial statement requirements will be involved in the design and implementation of the sampling plan. He also stated that DLA will provide the IG, DoD, with an advance plan and schedule showing how depot personnel will be used to conduct the required physical counts. Action will be completed by September 30, 1999.

3. Personnel with expertise in advanced statistical techniques must design and implement the sampling plan and interpret the results of the sample.

Management Comments. The Director, DLA, concurred with the recommendation and stated that the required actions would be completed by June 30, 1999.

4. Sampling techniques must be evaluated periodically and adjustments made, as needed, to adapt to changes in DoD supply and financial management practices.

Management Comments. The Director, DLA, concurred with the recommendation and stated that the required actions would be completed by September 30, 1999.

Appendix A. Audit Process

Scope

Work Performed. Accurate inventory records support management assertions regarding the existence and occurrence of assets. DLA uses statistical sampling techniques to ensure that its distribution depot inventory records are accurate. This part of our audit pertains to our evaluation of the DLA statistical sampling plan used to measure inventory accuracy.

Limitations to Audit Scope. For inventory to be fairly stated in the financial statements, DoD organizations need adequate controls to ensure that inventory records are complete and accurate and that inventory is properly disclosed and valued in the financial statements. This audit focuses on whether DLA had designed and implemented an effective statistical sampling plan to assess the dollar value accuracy of inventory. The audit does not address management assertions regarding the completeness, valuation, or presentation of inventory. In addition, we did not evaluate the effectiveness of management controls designed to ensure that all physical counts are conducted, inventory records are adjusted when discrepancies are found, and the causes of record imbalances are researched. The General Accounting Office is evaluating those controls in an ongoing audit.

DoD-Wide Corporate-Level Government Performance and Results Act Goals. In response to the Government Performance Results Act, the Department of Defense has established 6 DoD-wide corporate-level performance objectives and 14 goals for meeting these objectives. This report pertains to achievement of the following objectives and goals.

- **Objective:** Fundamentally reengineer DoD and achieve 21st century infrastructure. **Goal:** Reduce costs while maintaining required military capabilities across all DoD mission areas. **(DoD-6)**

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 objectives and goals.

- **Financial Management Functional Area. Objective:** Reengineer DoD business practices. **Goal:** Standardize, reduce, clarify, and reissue financial management policies. **(FM-4.1)**

Methodology

To perform the audit, we evaluated DoD policies for inventory management. The Quantitative Methods Division, Office of the Assistant Inspector General for Auditing, DoD, assisted us in evaluating the sampling techniques used by DLA.

Use of Computer-Processed Data. We obtained computer-processed data for the audit background and to prepare the table and figure in this report We did not test the general or application controls over the logistics and financial systems used to produce inventory data

Use of Technical Assistance. Operations research analysts from the Quantitative Methods Division, Office of the Assistant Inspector General for Auditing, DoD, assisted us in evaluating the validity of the statistical sampling plan used by DLA to measure inventory accuracy.

Audit Type, Dates, and Standards. We performed this financial-related audit from June to October 1998. Our review was made in accordance with auditing standards issued by the Comptroller General of the United States, as implemented by the Inspector General, DoD.

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

Management Control Program

DoD Directive 5010.38, "Internal Management Control Program," August 26, 1996, requires 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 those controls.

Scope of Review of the Management Control Program. We reviewed the FY 1998 Annual Statements of Assurance issued by DoD and DLA to determine whether the issues addressed in this report had been reported as material management control weaknesses

Adequacy of Management's Self-Evaluation. In the FY 1998 DoD Annual Statement of Assurance, DoD did not report any material weaknesses pertaining to inventory accuracy. A material weakness pertaining to inventory that was first reported in FY 1993 was reported as corrected during FY 1998. DLA had reported that its distribution depots were not all following required inventory control processes and new standards for inventory validation were required.

Adequacy of Management Controls. Although reported as corrected, DLA had a material management control weakness because the statistical sampling techniques were not adequate to estimate the dollar value accuracy of its distribution depots. We will provide a copy of this report to the DLA senior official responsible for management controls.

Summary of Prior Coverage

IG, DoD, Report No. 98-148, "Internal Controls and Compliance With Laws and Regulations for the FY 1997 Financial Statements of the Defense Logistics Agency Working Capital Fund," June 5, 1998.

IG, DoD, Report No. 98-072, "Defense Business Operations Fund Inventory Record Accuracy," February 12, 1998.

IG, DoD, Report No. 98-019, "Inventory Record Accuracy and Management Controls at the Defense Logistics Agency Distribution Depots," July 7, 1997.

Appendix B. Sampling Stratification for Logistical Accuracy

INVENTORY STRATIFICATION SUB-POPULATIONS AND ASSOCIATED RECORD ACCURACY GOALS AND TOLERANCE LEVELS

CATEGORY	SUB-POPULATION	RECORDS ACCURACY GOAL	TOLERANCE
A	CLASSIFIED AND SENSITIVE	100%	0%
B	UNIT PRICE ≥ $1,000	95%	0%
C	PILFERABLE (excluding Controlled Inventory Item Codes 7, 9, $, U, and Blank)	95%	0%
D	UNIT OF ISSUE NOT EQUAL TO EACH (note: applicable units of issue will be specified) OR (ON-HAND BAL >50 AND EXTENDED VALUE <$50,000) OR NSN ACTIVITY (# transactions affecting balance in one year) > 50	90%	10%
E	DATE OF LAST INVENTORY >24 MONTHS AND ON-HAND BALANCE < 50	93%	5%
F	ALL OTHER MATERIEL NOT MEETING ABOVE CRITERIA	95%	0%

For submission with the 4th quarter fiscal year Inventory Control Effectiveness (ICE) Report (data may be obtained throughout the fiscal year).

Appendix C. Report Distribution

Office of the Secretary of Defense

Under Secretary of Defense for Acquisition and Technology
  Deputy Under Secretary of Defense (Logistics)
  Director, Defense Logistics Studies Information Exchange
Under Secretary of Defense (Comptroller)
  Deputy Chief Financial Officer
  Deputy Comptroller (Program/Budget)
Assistant Secretary of Defense (Public Affairs)

Department of the Army

Auditor General, Department of the Army

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Office of Management and Budget
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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 Management, Information, and Technology, Committee on Government Reform
House Subcommittee on National Security, International Affairs, and Criminal Justice, Committee on Government Reform

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Defense Logistics Agency Comments

DEFENSE LOGISTICS AGENCY
HEADQUARTERS
8725 JOHN J. KINGMAN ROAD, SUITE 2533
FT. BELVOIR, VIRGINIA 22060-6221

IN REPLY REFER TO DDAI

14 January 1999

MEMORANDUM FOR DIRECTOR, FINANCE AND ACCOUNTING, INSPECTOR GENERAL; DEPARTMENT OF DEFENSE

SUBJECT: Draft Audit Report on the Status of the Defense Logistics Agency Plan to Measure Inventory Record Accuracy at the Distribution Depots Using Statistical Sampling, Project No. 8FJ-2017.00

Enclosed are DLA comments in response to your 13 November 1998 request. If you have any questions, please contact Ms. Mimi Schirmacher, DDAI, 767-6263.

Sheila P. Raines

SHEILA P. RAINES
Team Leader, Liaison & Policy
Internal Review Office

Encl

cc
DLSC-B
DLSC-L
FO
DDC-DI
DSCR-DI

SUBJECT: DoD IG Draft Report, "Status of the Defense Logistics Agency Plan to Measure Inventory Record Accuracy at the Distribution Depots Using Statistical Sampling" (DoD IG Project No. 8FJ-2017)

FINDING: Status of the Defense Logistics Agency Sampling Plan. Two major factors, the assignment of responsibility for keeping accountable records and the use of incompatible systems and sampling plans, had previously prevented DLA from adequately measuring record accuracy. These problems have been corrected, for the most part. Despite increased efforts during FY 1998 to improve sampling techniques, DLA has not developed and implemented an effective and efficient statistical sampling plan to measure the dollar value accuracy of its inventory records at distribution depots. While DLA has made significant progress in achieving its supply management goal, little progress has been achieved in meeting its financial goal. DLA has not assigned personnel who are familiar with financial statement requirements and who fully understand advanced statistical sampling techniques to develop and implement an effective and efficient sampling plan. Lack of an effective and efficient means of measuring the dollar value accuracy of inventory records represents a major impediment to DoD receiving favorable audit opinions.

DLA COMMENTS: Concur. DLA focused on the design, development and implementation of a statistical sampling program to measure Inventory Record Accuracy in support of material readiness and supply management requirements. However, the audit agency responsible for certification of financial statements, previously developed the methodology and sampling plan to be used. Consistent with Strategy B.1 "Inventory Issues," in the OUSD (Comptroller) November 30, 1998 memorandum, Subject: Department of Defense Implementation Strategy for Auditable Financial Statements, DLA will develop a sample plan to validate inventory dollar values.

ACTION OFFICER: Carolyn Farley, DLSC-LDA, (703) 767-2553
REVIEW/APPROVAL: Larry Roberson, COL, USA, Deputy Executive Director, Logistics Management (DLSC-L)
COORDINATION: Jim O'Laughlin, FOXS
Mimi Schirmacher, DDAI

RECOMMENDATION 1: Recommend that the Director, Defense Logistics Agency, design and implement a valid statistical sampling plan that meets DoD supply and financial management requirements. Specifically, the sampling plan must provide a statistically valid measure of the dollar value of materiel stored at the distribution depots and provide separate estimates for each Working Capital Fund. The sampling plan must meet the confidence and precision levels prescribed in DoD Regulation 7000.14-R, the "DoD Financial Management Regulation."

DLA COMMENTS: Partially concur. DLA disagrees with the requirement to design a statistical sampling plan to measure inventory dollar values for "each" Working Capital Fund. This recommendation should be readdressed to OUSD (Comptroller). A recent OUSD (Comptroller) memorandum of November 30, 1998, subject: DoD Implementation Strategy for Auditable Financial Statements, provided implementing strategies to the DLA and the Military Departments. This recommendation is inconsistent with the memorandum guidance.

The DLA does concur that the current Distribution Standard System (DSS) statistical sampling plan complies with approved MILSTRAP Change Letter-8A. Concurrences were previously obtained to support the DLA and Military Department Supply Management requirements. DLA will also design and implement a sampling stratification to measure inventory dollar values for DLA's Working Capital Fund.

DISPOSITION:

(X) Action is ongoing. ECD: 30 Jun 99

ACTION OFFICER: Carolyn Farley, DLSC-LDA, Jim O'Laughlin, FOXS
REVIEW/APPROVAL: Larry Roberson, COL, USA, Deputy Executive Director, Logistics Management (DLSC-L)
COORDINATION: Mimi Schirmacher, DDAI

RECOMMENDATION 2: Recommend that the Director, Defense Logistics Agency, design and implement a valid statistical sampling plan that meets DoD supply and financial management requirements. Specifically, personnel from the Defense Logistics Agency Comptroller's office and other personnel familiar with financial statement requirements must be involved in the design and implementation of the sampling plan. The Defense Logistics Agency must also devote the resources needed to count all sample items and compile the sample results.

DLA COMMENTS: Concur. DLA currently uses existing depot resources to perform physical counts. DLA personnel familiar with the CFO financial statements will be involved in the design and implementation of the sampling plan. DLA will also provide the DoD IG an advance plan and schedule of the proposed physical inventory methodologies.

DISPOSITION:
(X) Action is ongoing. ECD: 30 Sep 99

ACTION OFFICER: Jim O'Laughlin, FOXS, Carolyn Farley, DLSC-LDA
REVIEW/APPROVAL: Larry Roberson, COL, USA, Deputy Executive Director, Logistics Management (DLSC-L)
COORDINATION: Mimi Schirmacher, DDAI

RECOMMENDATION 3: Recommend that the Director, Defense Logistics Agency, design and implement a valid statistical sampling plan that meets DoD supply and financial management requirements. Specifically, personnel with expertise in advanced statistical techniques must design and implement the sampling plan and interpret the results of the sample.

DLA COMMENTS: Concur.

DISPOSITION:
(X) Action is ongoing. ECD: 30 Jun 99

ACTION OFFICER: Carolyn Farley, DLSC-LDA, (703) 767-2553
REVIEW/APPROVAL: Larry Roberson, COL, USA, Deputy Executive Director, Logistics Management (DLSC-L)
COORDINATION: Jim O'Laughlin, FOXS
Mimi Schirmacher, DDAI

RECOMMENDATION 4: Recommend that the Director, Defense Logistics Agency, design and implement a valid statistical sampling plan that meets DoD supply and financial management requirements. Specifically, sampling techniques must be evaluated periodically and adjustments made, as needed, to adapt to changes in DoD supply and financial management practices.

DLA COMMENTS: Concur.

DISPOSITION:

(X) Action is ongoing. ECD: 30 Sep 99

ACTION OFFICER: Carolyn Farley, DLSC-LDA, (703) 767-2553
REVIEW/APPROVAL: Larry Roberson, COL, USA, Deputy Executive Director, Logistics Management (DLSC-L)
COORDINATION: Jim O'Laughlin, FOXS
Mimi Schirmacher, DDAI

DLA APPROVAL:

E.R. CHAMBERLIN
Rear Admiral, SC, USN
Deputy Director

Audit Team Members

The Finance and Accounting Directorate, Office of the Assistant Inspector General for Auditing, DoD, prepared this report.

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INTERNET DOCUMENT INFORMATION FORM

A . Report Title: Status of the Defense Logistics Agency Plan to Measure Inventory Record Accuracy at the Distribution Depots Using Statistical Sampling

B. DATE Report Downloaded From the Internet: 09/13/99

C. Report's Point of Contact: (Name, Organization, Address, Office Symbol, & Ph #): **OAIG-AUD (ATTN: AFTS Audit Suggestions)**
Inspector General, Department of Defense
400 Army Navy Drive (Room 801)
Arlington, VA 22202-2884

D. Currently Applicable Classification Level: Unclassified

E. Distribution Statement A: Approved for Public Release

F. The foregoing information was compiled and provided by:
DTIC-OCA, Initials: __VM__ **Preparation Date 09/13/99**

The foregoing information should exactly correspond to the Title, Report Number, and the Date on the accompanying report document. If there are mismatches, or other questions, contact the above OCA Representative for resolution.