

Audit



Report

OFFICE OF THE INSPECTOR GENERAL

**CAPITALIZATION OF SOFTWARE DEVELOPED FOR
THE DISTRIBUTION STANDARD SYSTEM**

Report No. 97-097

February 19, 1997

Department of Defense

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Acronyms

DBOF	Defense Business Operations Fund
DLA	Defense Logistics Agency
DSS	Distribution Standard System
PP&E	Property, Plant, and Equipment
USD(C)	Under Secretary of Defense (Comptroller)



INSPECTOR GENERAL
DEPARTMENT OF DEFENSE
400 ARMY NAVY DRIVE
ARLINGTON, VIRGINIA 22202-2884



February 19, 1997

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

SUBJECT: Audit Report on Capitalization of Software Developed for the Distribution Standard System (Report No. 97-097)

We are providing this final report for your information and use. We audited Defense Logistics Agency software development capitalization as part of an overall audit of the property, plant, and equipment accounts in the Defense Business Operations Fund financial statements. Financial statements are required by the Chief Financial Officers Act of 1990.

We considered management comments on a draft of this report in preparing the final report. Management comments 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 this audit should be directed to Mr. James L. Kornides, Audit Program Director, or Mr. John K. Issel, Audit Project Manager, at (614) 751-1400. See Appendix C for the report distribution. The audit team members are listed on the inside back cover.

David K. Steensma

David K. Steensma
Deputy Assistant Inspector General
for Auditing

Office of the Inspector General, DoD

Report No. 97-097
Project No. 5FJ-2011.01

February 19, 1997

Capitalization of Software Developed for the Distribution Standard System

Executive Summary

Introduction. This report resulted from our "Audit of Property, Plant, and Equipment Accounts in the FY 1996 Financial Statements of the Defense Business Operations Fund (Project No. 5FJ-2011)." We performed the audit of property, plant, and equipment accounts to meet Chief Financial Officers Act requirements for financial statement audits.

DoD 7000.14-R, "DoD Financial Management Regulation," volume 11-B, "Reimbursable Operations, Policy and Procedures--Defense Business Operations Fund," December 1994, requires that certain assets purchased through the Defense Business Operations Fund be capitalized. Property is "capitalized" when it is recorded as an asset in financial accounting records. The cost of property not capitalized is recorded as a current operating expense. Some of the assets that should be capitalized include software development purchased through the Capital Investment Program. The "Defense Business Operations Fund FY 1996/1997 Budget Estimate Executive Overview" indicates that 45 percent or \$2.5 billion of the Defense Business Operations Fund Capital Investment Program had been earmarked for the development of software from FYs 1994 through 1997.

Audit Objective. The primary audit objective was to determine the reliability of information presented in the property, plant, and equipment accounts of the FY 1996 Defense Business Operations Fund financial statements. We also determined whether software developed by the Defense Logistics Agency for the Distribution Standard System was capitalized and incorporated into the property, plant, and equipment accounts as required by DoD 7000.14-R.

Audit Results. In FY 1995, the Defense Logistics Agency did not properly capitalize \$57.8 million of software that it had developed for the Distribution Standard System. As a result, the FY 1995 financial statements of the Defense Logistics Agency Distribution Depot, which reported assets of \$427.3 million, were materially understated. In FY 1996, the Defense Logistics Agency spent an additional \$24 million on software development for the Distribution Standard System. Unless the Distribution Standard System software is properly capitalized, the FY 1996 financial statements will be further understated, and use of information in the statements will adversely affect management decisions.

The recommendations in this report, if implemented, will improve the reliability and the usefulness of Defense Logistics Agency property, plant, and equipment financial reporting; specifically, the accounts established to show expenditures for and the capitalization and depreciation of software development. See Part I for a discussion of the audit results.

Summary of Recommendations. We recommend that the Director, Defense Logistics Agency, establish procedures to comply with DoD 7000.14-R policy on the capitalization of software development. Specifically, the Director should record in financial records and report in annual financial statements all Distribution Standard System development expenditures as "construction-in-process." Also, the Defense Logistics Agency should allocate and initiate depreciation of the allocated development costs at locations where the Distribution Standard System has been installed.

Management Comments. The Director, Defense Logistics Agency, concurred with the recommendations and has begun to capitalize Distribution Standard System software development expenses and to record depreciation when software development costs are input to the Defense Property Accountability System. Management comments were responsive, and no further comments are required. See Part I for a summary of management comments and Part III for the complete text of the comments.

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Part I - Audit Results

Audit Background

We conducted this audit of software development capitalization as part of the "Audit of Property, Plant, and Equipment Accounts in the FY 1996 Financial Statements of the Defense Business Operations Fund (Project No. 5FJ-2011)." We performed this audit to meet Chief Financial Officers Act requirements for financial statement audits.

Capitalization Policy. The Defense Business Operations Fund (DBOF) was established on October 1, 1991, to standardize, consolidate, and improve systems and operations and to reduce the costs of providing support services to DoD organizations. The Under Secretary of Defense (Comptroller) (USD[C]) is responsible for developing DBOF financial policy. This policy, which is incorporated in DoD 7000.14-R, "DoD Financial Management Regulation," volume 11-B, "Reimbursable Operations, Policy and Procedures--Defense Business Operations Fund," December 1994, provides the requirements for asset recognition, accounting, capitalization, and depreciation with respect to capitalization. DoD 7000.14-R requires DBOF organizations to capitalize and report all assets having an acquisition value of \$100,000 or greater and a useful life to the DoD of 2 or more years. Capital assets include, but are not limited to, physical plant and property (including minor construction), equipment, and software.

In December 1996, the USD(C) announced that the DBOF would be broken out into several separate working capital funds. This realignment does not affect the matters discussed in this report.

Software Development. Through the Capital Investment Program, DBOF organizations are developing and implementing new software programs. In the "DBOF FY 1996/1997 Budget Estimate Executive Overview," the USD(C) estimated that \$2.5 billion or 45 percent of the DBOF Capital Investment Program would be spent for software project development from FYs 1994 through 1997.

Defense Logistics Agency and the Distribution Standard System. The Defense Logistics Agency (DLA) was incorporated into the DBOF on October 1, 1991. Primary DLA functions consist of procuring and selling supplies to DoD Components and other customers, disposing of excess and surplus materiel, controlling and maintaining industrial plant equipment, and storing and distributing supply items. In March 1992, DLA began developing Distribution Standard System (DSS) software to improve overall distribution depot performance and help control the costs of materiel distribution. The first

phase of the system was installed at the Distribution Depot Susquehanna, Pennsylvania, in late FY 1994, and installation was scheduled to be completed at the remaining 20 distribution depots by the end of FY 1997. The DSS Economic Analysis shows that DLA will incur \$90.1 million in system development costs by the end of FY 1997.

Audit Objective

The primary audit objective was to determine the reliability of information presented in the property, plant, and equipment accounts of the FY 1996 Defense Business Operations Fund financial statements. We also determined whether software developed by the Defense Logistics Agency for the Distribution Standard System was capitalized and incorporated into the property, plant, and equipment accounts as required by DoD 7000.14-R. See Part II, Appendix A, for audit scope and methodology and Appendix B for a summary of prior audit coverage related to the audit objective.

Capitalization of Software Developed for the Distribution Standard System

In FY 1995, the Defense Logistics Agency did not properly capitalize \$57.8 million of software that it had developed for the Distribution Standard System. This condition existed because the Defense Logistics Agency did not implement the provisions of DoD 7000.14-R, "DoD Financial Management Regulation," volume 11-B, "Reimbursable Operations, Policy and Procedures--Defense Business Operations Fund," December 1994, which requires that software developments installed at more than one site over a multiyear period be capitalized and depreciated. As a result, the FY 1995 financial statements of the Defense Logistics Agency Distribution Depot, which reported assets of \$427.3 million, were materially understated by \$57.8 million. In FY 1996, the Defense Logistics Agency spent an additional \$24 million on software development for the Distribution Standard System. Unless the Distribution Standard System software is properly capitalized, the FY 1996 financial statements will be further understated, and use of information in the statements could adversely affect management decisions.

Capitalization Criteria

Policy for capitalizing, depreciating, and reporting software development costs in DoD 7000.14-R (volume 11-B, chapter 58, section D.6., December 1994) states:

The acquisition cost criteria, in the case of computer and other systems, is applied on the basis of the cost of a complete system rather than on a unit cost of individual items of equipment which, when aggregated, become a system. Incremental deliveries of these projects shall be capitalized if the aggregate cost meets the criteria above. Section D.7. states depreciation shall commence in the month following . . . the date the asset is installed and ready for use (regardless of whether it is actually used). Chapter 62, section C.4.c. states if multiple cost centers use the same computer system, . . . the depreciation or amortization shall be prorated based upon levels of usage or benefit received for each cost center.

In addition to the guidance provided above for completed software developments, DoD 7000.14-R (volume 11-B, chapter 57, section C.II.) states for software development still in process:

Capital Assets Under Development-DBOF is the account used by the Defense Business Operations Fund to accumulate the cost of capital assets that is being manufactured, constructed, or otherwise developed for use and retention by the performing activity. . . . The total cost of developing or manufacturing assets for use by any segment of the business area, including installation and other

Capitalization of Software Developed for the Distribution Standard System

costs necessary to place the asset in use, shall be accumulated in the construction-in-process general ledger account 1725, Capital Assets Under Development-DBOF. Upon completion, delivery and installation of the developed or manufactured asset, the account shall be relieved and the amount in that account capitalized to the applicable asset account. The capital asset shall then be depreciated by the business area at which it is installed.

Capitalization of DLA Software

The DLA had spent \$57.8 million on DSS development and installed the system at five DLA distribution depots by the end of FY 1995. However, DLA had not capitalized and reported the software development costs in its FY 1995 financial statements. Furthermore, no portion of the planned \$24 million in development costs to be incurred during FY 1996 was reflected in the DLA Capital Assets Under Development-DBOF account as required by DoD 7000.14-R.

Allocation of DSS Development Costs

DLA management personnel told us that they did not capitalize DSS development costs because they were unsure how to properly implement USD(C) financial policy. However, DoD 7000.14-R (section C.11.) makes it clear that DSS development expenditures should have been accumulated in the Capital Assets Under Development-DBOF account and included in the construction-in-process line of DLA financial statements. Furthermore, when the DSS was installed at the five defense depots during FY 1995, the guidance provides that the Capital Assets Under Development-DBOF account should have been relieved of an allocated amount and the amount capitalized and depreciated by those distribution depots. One method that DLA could have used to allocate the common software costs would have been to equitably distribute costs according to the percentage of total DLA workload performed by each site. Based on DLA distribution depot workload figures for FY 1995 and the total programmed software development cost of \$90.1 million (including \$57.8 million on DSS development), an equitable allocation would be as follows:

Capitalization of Software Developed for the Distribution Standard System

Allocation of DSS Software Depreciation Costs by Depot Workload

<u>Defense Depot</u>	<u>FY1995 Workload Issue & Receipts</u>	<u>Percentage of Total Workload</u>	<u>Total DSS Estimated Software Costs</u>	<u>Portion Allocated to Depot</u>
Depots With DSS				
Columbus, Ohio	1,222,494.00	0.040	\$90,100,000.00	\$3,632,710.11
Ogden, UT	1,990,131.00	0.066	90,100,000.00	5,913,786.90
Richmond, VA	1,632,180.00	0.054	90,100,000.00	4,850,115.25
San Joaquin, CA	3,769,305.00	0.124	90,100,000.00	11,200,703.14
Susquehanna, PA	6,075,398.00	0.200	90,100,000.00	18,053,389.00
Depots Without DSS				
Albany, GA	95,818.00	0.003	90,100,000.00	284,728.61
Anniston, AL	230,418.00	0.008	90,100,000.00	684,700.13
Barstow, CA	122,216.00	0.004	90,100,000.00	363,171.76
Cherry Point, NC	760,053.00	0.025	90,100,000.00	2,258,540.51
Corpus Christi, TX	387,905.00	0.013	90,100,000.00	1,152,681.66
Hill AFB, UT	889,278.00	0.029	90,100,000.00	2,642,539.91
Jacksonville, FL	814,331.00	0.027	90,100,000.00	2,419,830.65
McClellan, CA	936,748.00	0.031	90,100,000.00	2,783,599.70
Norfolk, VA	2,544,728.00	0.084	90,100,000.00	7,561,803.28
Oklahoma City, OK	1,454,048.00	0.048	90,100,000.00	4,320,785.93
Puget Sound, WA	365,742.00	0.012	90,100,000.00	1,086,823.05
Red River, TX	864,058.00	0.028	90,100,000.00	2,567,597.25
San Antonio, TX	294,390.00	0.010	90,100,000.00	874,796.55
San Diego, CA	1,916,153.00	0.063	90,100,000.00	5,693,957.09
Tobyhanna, PA	2,822,296.00	0.093	90,100,000.00	8,386,612.30
Warner Robins, GA	1,133,119.00	0.037	90,100,000.00	3,367,127.24
Total:	30,320,809.00	1.000		\$90,100,000.00

As shown above, DLA could have allocated an equitable portion of DSS development costs to the distribution depots where the DSS was installed and capitalized the costs in accordance with USD(C) policy in DoD 7000.14-R. The amounts should have been shown as property, plant, and equipment (PP&E) construction-in-process. This would have improved the reliability and the usefulness of DLA property, plant, and equipment financial reporting.

The DLA footnoted its FY 1995 financial statements to indicate that its property, plant, and equipment values were materially understated. This was largely because DLA could not capture and report the value of its real property facilities used in operations. However, the footnote did not discuss the fact that DLA had not capitalized DSS software development costs.

Effect on Financial Statements

Because DLA did not include the \$57.8 million of DSS development costs in its Capital Asset Under Development-DBOF account, FY 1995 DLA distribution depot financial statements were materially understated. The DLA distribution depots only reported \$878,000 for automated data processing equipment and software in FY 1995. The total distribution depot PP&E amount reported by DLA was understated by 13.2 percent (that is, the net value of PP&E should have been \$57.8 million more than reported or \$495.1 million, not \$437.3 million). Additionally, the DLA distribution depot FY 1996 financial statements will further understated as DLA spent another \$24 million on DSS software development during FY 1996.

Recommendations and Management Comments

We recommend that the Director, Defense Logistics Agency:

1. Capitalize all prior, current, and future Distribution Standard System software development expenditures. Show these assets as part of the property, plant, and equipment construction-in-process amount, as required by DoD 7000.14-R "DoD Financial Management Regulation," volume 11-B, "Reimbursable Operations, Policy and Procedures--Defense Business Operations Fund," December 1994.

2. Begin the allocation of depreciation expenses to the software development costs incurred to procure the Distribution Standard System, recording depreciation for locations where the system has been installed.

Management Comments. The Director, Defense Logistics Agency, concurred with the recommendations and has begun to capitalize Distribution Standard System software development expenses and to record depreciation when software development costs are input to the Defense Property Accountability System.

Part II - Additional Information

Appendix A. Scope and Methodology

Scope and Methodology

We reviewed USD(C) policies on DBOF financial operations issued from September 1991 through June 1996. We limited our audit to the effect of this policy on the Defense Logistics Agency, although it was applicable to all DBOF business areas. We examined related DLA financial data for FYs 1995 and 1996. We also discussed the appropriateness of current DBOF policy on software depreciation with senior managers in the Office of the USD(C) and DLA. Additionally, we reviewed the DSS economic analysis and related cost reports. We did not review management controls as they were not applicable to the issues discussed in this report.

We conducted this financial-related audit from March through August 1996 in accordance with auditing standards issued by the Comptroller General of the United States as implemented by the Inspector General, DoD. We did not use computer-processed data or statistical sampling procedures.

Organizations Visited or Contacted

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

Appendix B. Summary of Prior Audits and Other Reviews

During the last 3 years, the Inspector General, DoD, has issued three audit reports addressing the reporting and capitalization of DBOF property, plant, and equipment. The audit reports are summarized below.

Inspector General, DoD, Report No. 94-149, "Property, Plant, and Equipment Accounts on the Financial Statements of the Defense Logistics Agency Business Areas of the Defense Business Operations Fund For FY 1993," June 28, 1994. This report stated that the useful life established by DoD for the depreciation of major software programs did not properly match period expenses with revenues and overstated the cost of operations. The report recommended that the Comptroller of the DoD revise the capital asset guidance for the depreciation of major software programs to require that DBOF organizations depreciate the programs over the estimated useful life shown in the economic analysis. The Deputy Comptroller for Financial Systems agreed in principle with the recommendations and stated that the DBOF Corporate board is reviewing software depreciation policy and that policy revisions will reflect the DBOF board decision. The DBOF Corporate board stated that software programs will be depreciated over a 5-year period and not over the useful life as stated in the systems economic analysis.

Inspector General, DoD, Report No. 94-035, "Financial Reporting Procedures For Defense Distribution Depots - Defense Logistics Agency Business Area of the Defense Business Operations Fund," February 8, 1994. This report identified significant weaknesses in internal controls that affect the reliability of financial data presented in financial statements. The report also identified the property, plant, and equipment account for FY 1992 as being significantly understated because not all capital assets had been reported. The DoD Deputy Comptroller (Management Systems) commented that property used by DBOF organizations should be reported as an asset on the financial statement of the using organization. The reliability of Defense Logistics Agency financial information has improved because the agency has established proper internal controls.

Inspector General, DoD, Report No. 93-134, "Principal and Combining Financial Statements of the Defense Business Operations Fund - FY 1992," June 30, 1993. This report identified material weaknesses in the internal control structure of the DBOF, as related to capital asset accounting. The report stated that depreciation schedules were incorrectly developed because Army personnel did not record correct information and did not have an accounting system to compute depreciation. Another reason given was that Air Force personnel did not depreciate assets over their assets' useful life. Additionally, DBOF personnel did not conduct transactions in compliance with existing guidance or perform reconciliations. The DoD Acting Chief Financial Officer generally agreed with the report and indicated that corrective actions would be implemented. However, the DoD FY 1996 Statement of Assurance stated that reliable financial information capable of being rigorously audited will not be available until FY 2002.

Appendix C. Report Distribution

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Director, Defense Logistics Studies Information Exchange

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Department of the Navy

Assistant Secretary of the Navy (Financial Management and Comptroller)
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Department of the Air Force

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

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House Subcommittee on National Security, Committee on Appropriations
House Committee on Government Reform and Oversight
House Subcommittee on National Security, International Affairs, and Criminal Justice,
Committee on Government Reform and Oversight
House Committee on National Security

Part III - Management Comments

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

22 JAN 1997

MEMORANDUM FOR THE ASSISTANT INSPECTOR GENERAL FOR AUDITING,
DEPARTMENT OF DEFENSE

SUBJECT: Draft Report on Capitalization of Software Developed for the Distribution
Standard System, 5FJ-2011.01

Enclosed is our response to your request of 3 November 1996. Should you have any
questions, please contact LaVaeda Coulter, DDAI, 767-6261.


OLIVER E. COLEMAN
Acting Chief
Internal Review Office

cc:
FOX

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Subject: Capitalization of Software Developed for the Distribution Standard System (DSS)
5FJ-2011.01

Recommendation 1: Recommend that the Director, Defense Logistics Agency capitalize all prior, current, and future Distribution Standard System (DSS) software development expenditures. Show these assets as part of the property, plant, and equipment construction-in-process amount, as required by DoD 7000.14-R "Financial Management Regulation," volume 11-B, Reimbursable Operations, Policy and Procedures--Defense Business Operations Fund," December 1994.

DLA Comments: Concur. With the continued implementation and loading of information into the Defense Property Accountability System (DPAS), we will capitalize DSS software development expenditures.

Disposition: Action is on going. **ECD: 31 December 1997**

Action Officer: Richard Sninsky, FOXS

Review: B. A. Blackman, FOX

Coordination: LaVaeda Coulter, DDAI, 767-6262

Oliver E. Coleman, Acting Chief, Internal Review Office

Oliver E. Coleman

DLA Approval:

[Signature]

Defense Logistics Agency Comments

Subject: Capitalization of Software Developed for the Distribution Standard System
SFJ-2011.01

Recommendation 2: Recommend that the Director, Defense Logistics Agency begin the allocation of depreciation expenses to the software development costs incurred to procure the Distribution Standard System, recording depreciation for locations where the system has been installed.

DLA Comments: Partially concur. As software development costs are loaded into DPAS, we will begin to record depreciation at the same activity level as the loaded capital.

Disposition: Action is on going. **ECD: 31 December 1997**

Action Officer: Richard Sninsky, FOXS

Review: B. A. Blackman, FOX

Coordination: LaVaeda Coulter, DDAI, 767-6262

Oliver E. Coleman, Acting Chief, Internal Review Office

Oliver E. Coleman

DLA Approval:

Ray E. Jackson

Audit Team Members

This report was prepared by the Finance and Accounting Directorate, Office of the Assistant Inspector General for Auditing, DoD.

F. Jay Lane
James L. Kornides
John K. Issel
Eric T. Thacker
Deborah Curry