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Supplementary Notes
Abstract
This is the first of two reports addressing total asset visibility. This report discusses the effectiveness of the DoD Total Asset Visibility Program as it relates to the Government Performance and Results Act Performance Measure 2.3.5, "Visibility and Accessibility of DoD Materiel Assets." A second report will discuss the effectiveness of the Joint Total Asset Visibility Program. The DoD Total Asset Visibility Program, managed by the Office of the Deputy Under Secretary of Defense (Logistics and Materiel Readiness), was an initiative aimed at achieving visibility over 100 percent of DoD materiel assets. The goal of the DoD Total Asset Visibility Program was to provide DoD users with timely, accurate information on the location, movement, status, and identity of military assets and the capability to perform transactions using that information. The DoD Total Asset Visibility capability was developed in large part by integrating existing and evolving business systems employed by the Services and the Defense Logistics Agency. Visibility of assets has been a concern for the Services for many years. Lessons learned from Operations Desert Shield and Desert Storm brought out the seriousness of the problem. During Operations Desert Shield and Desert Storm, the responsiveness of the logistics system was degraded by thousands of duplicate orders placed because operational units had inadequate visibility over the status of their requisitions, particularly for critical items. Moreover, an enormous amount of materiel was shipped to the theater but was not readily available to U.S. forces because of poor control and visibility of the assets.

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Acronyms

DLA Defense Logistics Agency  
DUSD(L&MR) Deputy Under Secretary of Defense (Logistics and Materiel Readiness)  
GPRA Government Performance and Results Act  
JTAV Joint Total Asset Visibility  
OSD Office of the Secretary of Defense  
SSIR Supply System Inventory Report  
TAV Total Asset Visibility
November 21, 2001

MEMORANDUM FOR UNDER SECRETARY OF DEFENSE FOR ACQUISITION, TECHNOLOGY, AND LOGISTICS


We are providing this report for review and comment. This is the first of two reports being issued by the Inspector General, DoD, to address total asset visibility.

Management did not provide comments on the draft report. DoD Directive 7650.3 requires that all recommendations be resolved promptly. Therefore, we request that the Under Secretary of Defense for Acquisition, Technology, and Logistics provide comments on this report by December 21, 2001.

We appreciate the courtesies extended to the audit staff. For additional information on this report, please contact Mr. Tilghman A. Schraden at (703) 604-9186 (DSN 664-9186) (tschraden@ dodig.osd.mil) or Ms. Kathryn L. Palmer at (703) 604-8840 (DSN 664-8840) (kpalmer@dodig.osd.mil). See Appendix D for the report distribution. The audit team members are listed inside the back cover.

David K. Steensma
Acting Assistant Inspector General for Auditing
Executive Summary

Introduction. This is the first of two reports addressing total asset visibility. This report discusses the effectiveness of the DoD Total Asset Visibility Program as it relates to the Government Performance and Results Act Performance Measure 2.3.5, “Visibility and Accessibility of DoD Materiel Assets.” A second report will discuss the effectiveness of the Joint Total Asset Visibility Program.

The DoD Total Asset Visibility Program, managed by the Office of the Deputy Under Secretary of Defense (Logistics and Materiel Readiness), was an initiative aimed at achieving visibility over 100 percent of DoD materiel assets. The goal of the DoD Total Asset Visibility Program was to provide DoD users with timely, accurate information on the location, movement, status, and identity of military assets\(^1\) and the capability to perform transactions using that information. The DoD Total Asset Visibility capability was developed in large part by integrating existing and evolving business systems employed by the Services and the Defense Logistics Agency.

Visibility of assets has been a concern for the Services for many years. Lessons learned from Operations Desert Shield and Desert Storm brought out the seriousness of the problem. During Operations Desert Shield and Desert Storm, the responsiveness of the logistics system was degraded by thousands of duplicate orders placed because operational units had inadequate visibility over the status of their requisitions, particularly for critical items. Moreover, an enormous amount of materiel was shipped to the theater but was not readily available to U.S. forces because of poor control and visibility of the assets.

Objective. The overall audit objective was to evaluate the effectiveness of the DoD Total Asset Visibility Program. Specifically, the audit evaluated the performance measure for DoD Total Asset Visibility. In addition, we evaluated the management control program related to the objective.

Results. The DoD Total Asset Visibility\(^2\) performance data reported by the Secretary of Defense in the FY 2001 “Annual Report to the President and Congress” was incomplete and inconsistent. We estimate that assets targeted for visibility should be approximately $198.8 billion rather than the $95.5 billion reported under the DoD Total Asset Visibility performance measure. Several categories of assets, including principal end items and bulk fuel, were excluded from the DoD Total Asset Visibility performance

\(^{1}\)Military assets include weapon systems, tactical vehicles, ammunition, parts and assemblies that support principal end items, and consumable items, such as food, medical items, and fuel.

\(^{2}\)References throughout this report to Total Asset Visibility are inclusive references to mean asset visibility and accessibility.
measure. In addition, the reported asset data relied on supply systems whose accuracy was questioned in numerous audit reports over the past 5 years. As a result, the DoD Total Asset Visibility measure reported was not a reliable indicator of total asset visibility. See the Finding section for details on the audit results. See Appendix A for details on our review of the management control program.

Summary of Recommendations. We recommend that the Deputy Under Secretary of Defense (Logistics and Materiel Readiness) evaluate the usefulness of the DoD Total Asset Visibility performance measure; issue specific, written, DoD Total Asset Visibility performance measure guidance that clarifies the required data elements for the measure; and establish and institutionalize a process to evaluate and verify data submitted by DoD Components for the Total Asset Visibility performance measure.

Management Comments. We provided a draft of this report on August 24, 2001. No management comments were received. We request that the Under Secretary of Defense for Acquisition, Technology, and Logistics provide comments on the final report by December 21, 2001.
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## Executive Summary

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Background

This is the first of two reports addressing total asset visibility. This report discusses the effectiveness of the DoD Total Asset Visibility (TAV) Program as it relates to the Government Performance and Results Act (GPRA). The second report will discuss the effectiveness of the Joint Total Asset Visibility (JTAV) Program.

**DoD Total Asset Visibility Program.** The DoD TAV program is an initiative managed by the Office of the Deputy Under Secretary of Defense (Logistics and Materiel Readiness) (DUSD[L&MR]). The DoD TAV capability was developed in large part by integrating existing and evolving business systems employed by the Services and the Defense Logistics Agency (DLA).  

**DoD Regulation 4140.1-R and Defense Total Asset Visibility Implementation Plan.** The January 1993 version of DoD Regulation 4140.1-R, “DoD Materiel Management Regulation,” provided guidance for the uniform management of DoD materiel. In providing that guidance, DoD Regulation 4140.1-R also defined the objectives of TAV for achieving wholesale and retail visibility of assets. DoD Regulation 4140.1-R was revised in May 1998 and included a more detailed explanation of TAV objectives that mirrored the terminology contained in the “Defense Total Asset Visibility Implementation Plan,” November 1995 (Implementation Plan) that the Under Secretary of Defense for Acquisition, Technology, and Logistics had developed and published. The principal purposes of the Implementation Plan were to define TAV requirements and put forward architecture to satisfy those requirements. That definition of TAV requirements was used in the updating of DoD Regulation 4140.1-R in May 1998. DoD Regulation 4140.1-R states, “The Total Asset Visibility (TAV) capability shall provide timely and accurate information on the location, movement, status, and identity of units, personnel, equipment, and supplies. It shall also provide the ability to act on the information to improve the overall performance of DoD logistics practices.” Both the Implementation Plan and DoD Regulation 4140.1-R also state that TAV methodologies and procedures apply to all materiel assets, to include fuel, medical items, and ammunition.

**Joint Total Asset Visibility Program.** The JTAV Program uses the same definition as DoD Regulation 4140.1-R for defining the program’s mission. The JTAV capability is “the capability to provide users with timely and accurate information on the location, movement, status, and identity of units, personnel, equipment and supplies. It facilitates the capability to act upon that information to improve overall performance of DoD’s logistics practices.” The JTAV Program provides visibility of selected assets to commanders in chief and Joint Task Force commanders. However, JTAV does not provide the capability to access (requisition) those assets. JTAV asset visibility is not part of the GPRA TAV performance measure.

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1References throughout this report to the Components are inclusive references to mean the four Services (Army, Navy, Air Force, and Marine Corps) and the Defense Logistics Agency.
**Government Performance and Results Act.** The GPRA of 1993 (Public Law 103-62) was designed to improve Government-wide program effectiveness, Government accountability, and, ultimately, public confidence by requiring agencies to identify measurable annual performance goals against which actual achievements can be compared. DoD annually reports on the achievement status for GPRA goals in the “Annual Report to the President and Congress.”

**Performance Measure 2.3.5.** In 1996, DoD established GPRA Performance Measure 2.3.5, “Visibility and Accessibility of DoD Materiel Assets.” The DoD TAV measure uses the definition of TAV that is found in the Implementation Plan and was later added to the May 1998 version of DoD Regulation 4140.1-R.

**Data Source.** Data used by the DUSD (L&MR) to calculate the progress in meeting the GPRA TAV goal, 100 percent asset visibility and accessibility by FY 2006, were based on reports provided by the Components. DUSD(L&MR) stated that each Component determined what assets would be targeted for visibility and accessibility. Component data were obtained from a variety of automated databases, including the Supply System Inventory Report (SSIR) and Component-level automated logistics management systems, such as the Army Total Asset Visibility System and the DLA Standard Automated Materiel Management System. The percentage being reported under the performance measure was based on percent of assets targeted for visibility and accessibility by each Component. The Implementation Plan assigned responsibility for ensuring the implementation of DoD-wide asset visibility to the staff within the Office of the DUSD(L&MR).

**Objective**

The overall audit objective was to evaluate the effectiveness of the DoD TAV Program. Specifically, the audit evaluated the performance measure for DoD TAV. In addition, we evaluated the management control program related to the objective. See Appendix A for a discussion of the audit scope and methodology and the review of the management control program. See Appendix B for prior coverage.


**DoD Total Asset Visibility Performance Measure**

The TAV performance data reported by the Secretary of Defense in the FY 2001 “Annual Report to the President and Congress” were incomplete and inconsistent. We estimate that assets targeted for visibility should be approximately $198.8 billion rather than the $95.5 billion reported under the DoD Total Asset Visibility performance measure. Several categories of assets, including principal end items and bulk fuel, were excluded from the TAV performance measure. In addition, the reported asset data relied on supply systems whose accuracy was questioned in numerous audit reports over the past 5 years. That condition occurred because DUSD(L&MR) did not provide adequate written guidance or oversight for the DoD TAV performance measure. Specifically, DUSD(L&MR) did not clarify to the DoD Components what types of assets were to be reported for GPRA and did not evaluate and verify the asset data that the DoD Components reported. As a result, the DoD TAV performance measure was not a reliable indicator of DoD TAV.

**Evolution of Total Asset Visibility Concept**

Visibility of assets has been a concern of the Services for many years. The January 1993 version of DoD Regulation 4140.1-R defined TAV as “the capability for both operational and logistics managers to obtain and act on information on the location, quantity, condition, movement, and status of assets throughout the DoD logistics system. TAV includes all levels, and all secondary items, both consumable and reparable.” Lessons learned from Operations Desert Shield and Desert Storm focused attention on the seriousness of the problem. During Operations Desert Shield and Desert Storm, the responsiveness of the logistics system was degraded by thousands of duplicate orders placed because operational units had inadequate visibility over the status of their requisitions, particularly for critical items. Moreover, an enormous amount of materiel was shipped to the theater, but was not readily available to U.S. forces because of poor control and visibility of the assets.

Responding to those problems, the Under Secretary of Defense for Acquisition, Technology, and Logistics published the Implementation Plan in November 1995, which outlined the concepts, requirements, and milestones to provide a TAV capability for DoD. The Implementation Plan states, “TAV is the capability to provide [users with] timely and accurate information on the location, movement, status, and identity of units, personnel, equipment, and supplies. It also includes the capability to act upon that information to improve overall performance of DoD’s logistics practices.” The Implementation Plan also builds on the definition provided in DoD Regulation 4140.1-R. It expounds on the need for timely and accurate information on the status and location of all assets and it expands the range of assets from the secondary items to all classes...
of supply (including ammunition and principal end items) as well as units, personnel, and medical patients. The Implementation Plan addresses TAV requirements in the areas of requisition tracking and visibility of assets in storage (also referred to as on-hand or in-stock assets), in process (includes in-repair assets), and in transit (includes due-in assets).

In recognition of the evolving requirements for materiel management, DoD Regulation 4140.1-R was revised in May 1998 to incorporate the TAV goals and to mirror the definition of TAV set forth in the Implementation Plan. The Regulation’s definition of TAV was revised to read, “Total Asset Visibility (TAV) capability shall provide timely and accurate information on the location, movement, status, and identity of units, personnel, equipment, and supplies. It shall also provide the ability to act on the information to improve the overall performance of DoD logistics practices.” The revised DoD Regulation 4140.1-R also states that TAV methodologies and procedures apply to all materiel assets, to include fuel, medical items, and ammunition.

During the same time frame that the TAV concept was evolving, GPRA was enacted to improve Government-wide program effectiveness, accountability, and, ultimately, public confidence by requiring agencies to identify measurable annual performance goals. In 1996, the DoD Logistics community identified Performance Measure 2.3.5, “Visibility and Accessibility of DoD Materiel Assets,” as one of several goals designed to streamline the DoD infrastructure by redesigning the DoD support structure and pursuing business practice reforms. The stated goal of the GPRA TAV performance measure was the same as that found in both the Implementation Plan and DoD Regulation 4140.1-R. The performance measure goal is: “The Total Asset Visibility (TAV) program is to provide DoD users with timely, accurate information on the location, movement, status, and identity of military assets (units, equipment, and supplies) and the capability to perform transactions using that information.” Asset visibility is measured as the percentage of DoD worldwide inventory that is both visible (is in the databases) and accessible to Integrated Materiel Managers (available to process orders against). The narrative description of Performance Measure 2.3.5 also states that the measure “does not take into account the visibility of items in transit (i.e., items that are in route from warehouses to customers).” The asset visibility and accessibility baseline was set at 50 percent in FY 1996. DoD reported in the FY 2001 “Annual Report to the President and Congress” a TAV visibility and accessibility rate of 96 percent for FY 2000. The performance goal for asset visibility and accessibility is 100 percent by FY 2006. See Table 1 for the percents reported from FY 1997 through FY 2000.
Performance Measure Data

According to the data provided in the “Government Performance and Results Act Department of Defense FY 2000 Performance Report,” March 2001 (the FY 2000 GPRA Report),² DoD exceeded not only the performance goal for asset visibility and accessibility for FY 2000 but also exceeded the 94 percent goal set for FY 2001. However, the data provided by the DoD Components as input to the GPRA TAV measure for FY 2000 were incomplete and inconsistent. Specifically, the data used to calculate the GPRA TAV measure did not include all the types of assets required by DoD Regulation 4140.1-R. As a result, the GPRA measure title and description were confusing and the measure was not a reliable indicator of DoD TAV performance.

Completeness

The percentage value of assets that was reported in the TAV performance measure was calculated on total assets targeted. Each Component determined what assets were targeted for visibility and accessibility. We were unable to find any documentation that provided guidance that specified the categories of assets to be included in those that were targeted. The assets targeted for visibility and accessibility did not match the assets required to be included in the TAV Program by DoD Regulation 4140.1-R. In addition, the DoD TAV performance measure is not adequately defined because asset categories making up the universe of all DoD assets were not developed and identified in the measure’s description. The description does not state that the assets being reported are a subset of total assets required to be visible and accessible.

²The FY 2000 GPRA Report is included in the FY 2001 “Annual Report to the President and Congress” as Appendix I.
TAV Input. In the Component FY 2000 GPRA reports provided to DUSD(L&MR), all the Components excluded certain categories of assets, such as in-transit supply inventory (wholesale and retail) that has been shipped from vendors after acceptance by the Government but not yet received by the inventory managers (due-in items). In-transit items are a significant element of the DoD inventory. For example, the most recent SSIR, September 30, 1999, identified $5.1 billion of in-transit stock. The SSIR defined in-transit stock as due-in assets as well as assets that are between storage locations, wholesale or retail. The GPRA TAV data partially included in-transit stock between storage locations but did not include any due-in assets. Although it was not possible to exactly quantify the portion of in-transit stock included in the GPRA data, we estimated that out of the $5.1 billion of in-transit assets identified in the SSIR, assets valued at approximately $4.7 billion were not included in the GPRA TAV data reported.

Additional categories of assets excluded from the GPRA TAV measure included ammunition, bulk fuel, equipment, and assets turned in to the Defense Reutilization and Marketing Service. The DoD General Fund Financial Statement for FY 1999 reported that total DoD ammunition assets were valued at $36.7 billion. Detailed DLA input to the SSIR reported $1.7 billion of bulk fuel assets for FY 1999. The detailed DLA input to the SSIR did not contain an estimate of Defense Reutilization and Marketing Service assets. However, the Defense Reutilization and Marketing Service provided an estimate of $3.8 billion worth of on-hand assets as of July 27, 2001. The SSIR did not provide data on all military equipment. However, assets with a value of $93.1 billion, including ammunition, were reported in the SSIR for principal items. Principal items include some equipment but do not include major weapon systems such as tanks, aircraft, and ships.

The value of Component assets targeted for visibility and accessibility as well as the value of assets reported as visible and accessible in the FY 2000 GPRA Report under the TAV performance measure are shown in Table 2. The reported 96 percentage of achievement of the TAV performance measure is based on the accessibility values.

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3The Component reports as of September 30 each year are used by DUSD(L&MR) for reporting on the GPRA TAV measure for that fiscal year.

4That estimate was based on FY 1999 SSIR data for the Air Force and DLA. The Navy partially reported in-transit stock in the GPRA data, but the dollar value reported could not be estimated. The Army and the Marine Corps did not include any in-transit stock in the GPRA data.

5SSIR data do not specifically identify DLA bulk fuels, but DLA bulk fuels were identified in the detailed DLA input documentation to the SSIR.

6Principal items are end items or replacement assemblies of such importance to operational readiness that management techniques require centralized individual item management throughout the supply system.
The assets targeted for visibility were a subset of TAV that may have represented less than 50 percent of the assets required by DoD Regulation 4140.1-R. Using data from the most recent SSIR and the assets identified in the FY 2000 GPRA Report, the DoD TAV assets targeted for visibility should total approximately $198.8 billion rather than the $95.5 billion reported under the GPRA TAV measure. Although the SSIR data were for FY 1999 and the GPRA data were primarily for FY 2000, the comparison is valid for the purpose of demonstrating the relative magnitude of assets that were not included in the GPRA data. Table 3 shows the relative magnitude of assets, estimated to be approximately $103.3 billion, which were not included in the GPRA TAV data.

Table 3. Assets Targeted and Excluded by the GPRA TAV Performance Measure (dollars in billions)

Table 2. Performance Measure 2.3.5 FY 2000 TAV Data (dollars in billions)

Historically, the SSIR data do not show wide variations from year to year in total assets reported. For example, since 1995, the largest variation between secondary item totals was about 12 percent and around 18 percent for principal end items.
**Timeliness.** In addition to those assets that were not included in the GPRA TAV performance measure data, the reported supply data do not provide a complete picture of assets that were visible or accessible during the reporting period. For each reporting year, the GPRA TAV data provides a September 30 snapshot of assets that had been entered into the Service automated logistics management databases, which may not reflect an accurate picture of the capability of inter- and intra-Service TAV. For example, the Air Force explained that an installation that had automated system problems with software or hardware was categorized as suspended. The assets for a suspended installation were not included in accessibility reporting if the suspended status was in place on September 30. However, if a suspended installation’s automated system problems had been resolved and the logistics system was functioning on September 30, the assets were counted as visible and accessible for the fiscal year calculation that was provided in the DoD GPRA performance reports. In addition, the asset snapshot provided by DLA was not for the same time period as the snapshots provided by the Services. According to DLA personnel, for the FY 2000 GPRA Report, DLA reported a combination of FY 1999 and FY 2000 year-end data. DLA used September 30, 1999, data to report assets managed and owned by DLA and September 30, 2000, data to report assets managed by DLA but owned by the Services. The FY 1999 data accounted for about 60 percent of the dollar value of all DLA assets ($9.4 billion out of $14.7 billion) reported under the GPRA TAV measure in FY 2000.

**Consistency**

As a result of heightened emphasis on attaining asset visibility for the operational commanders since Operation Desert Storm, the Implementation Plan specifically addresses the operational commanders’ requirement for visibility of in-transit assets. The GPRA TAV performance measure specifically included “movement . . . of military assets” in its description. However, the narrative description also states that the GPRA TAV measure excludes in-transit assets. That description is contradictory in terms of what the performance measure actually reports.

A review of the Component GPRA data revealed that in-transit assets were partially reported by three of the Components. In-transit supply inventory that was between storage locations, wholesale or retail, were included in Air Force and DLA TAV data and partially included in Navy data. None of the Components included due-in items, in-transit assets that had been shipped from vendors after acceptance by the Government but had not been received by the inventory managers. The Air Force explained that it considered in-transit assets, except for due-in assets, to be on-hand assets. In-transit assets (less due-in assets) were reported in the DLA GPRA data as a part of the overall consumable items in stock. Although not broken out as a separate entry in the data provided to DUSD(L&MR), DLA has a system that tracks in-transit assets. According to the source documents used by DLA to calculate data presented in the SSIR, DLA had in-transit assets valued at about $652.9 million out of a total inventory of about $9.5 billion for FY 1999.8

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8DLA data provided for the SSIR for FY 1999 were also used for the DLA-owned assets provided in the FY 2000 GPRA TAV data.
The Army and the Marine Corps did not report any in-transit asset data. The Army and the Marine Corps lacked automated systems that enabled both the tracking and valuation of in-transit assets. The Army reported in-transit visibility of assets as a management control weakness in its FY 2000 “Annual Statement of Assurance,” March 2001. Since 1996, the DoD reported TAV as a systemic weakness in the DoD annual statements of assurance. See Appendix C for additional information on the TAV management control weaknesses reported in annual statements of assurance.

Additionally, reporting of in-repair assets was inconsistent. The Army, the Air Force, and the Marine Corps included in-repair assets as part of their reported asset data. The Air Force data included in-repair assets at contractor repair facilities but the Army data did not include assets at contractor facilities. The Navy reported in-repair assets for the wholesale inventory points only because it did not have a system that tracked in-repair assets at the retail level. Another example of inconsistent TAV data were the inclusion of about $1.6 billion in visible and accessible assets that the Navy had turned in to the Defense Reutilization and Marketing Service. As mentioned previously, Defense Reutilization and Marketing Service assets were not targeted for visibility or accessibility by DLA. We could find no explanation for the exclusion of those assets in the description of the TAV measure or in the detailed TAV reports from the Army, the Air Force, or the Marine Corps. The Navy stated it targeted those assets because they were available if needed.

**Data Accuracy**

Audit reports over the past 5 years have indicated that automated inventory management systems of the DoD Components were not reliable sources of data on inventory items and their valuation (see Appendix B for a list of prior reports). The data being reported to DUSD(L&MR) by the Components for the DoD TAV performance measure were of questionable accuracy. The General Accounting Office; the Inspector General, DoD; and the Service audit organizations have issued numerous audit reports during the past 5 years that identify examples of inaccurate inventory data being reported because of both inaccurate inventory counts and inaccurate inventory valuation by the Components. As a result, the data being reported under the GPRA TAV measure cannot be considered an accurate indicator of quantity or value of assets.

In the past 5 years, at least 41 reports identified problems within DoD Components in inventory data accuracy. Recommendations in these 41 reports included the need to develop a TAV training plan, issue regulatory guidance, and establish new data collection procedures. Of the 153 recommendations specific to inventory data accuracy, 24 percent (37 recommendations) had not been fully implemented as of July 1, 2001. The following paragraphs discuss some of those reports.
**General Accounting Office.** Over the past 5 years the General Accounting Office issued four reports, including congressional testimony, that address inaccurate inventory data; however, none of the recommendations specifically address inventory data accuracy. Testimony issued as General Accounting Office Report No. T-AIMD/NSIAD-99-145, “DoD Financial Management: More Reliable Information Key to Assuring Accountability and Managing Defense Operations More Efficiently,” April 14, 1999, noted that financial statement audits had found that DoD generally excludes information in several inventory accountability systems from financial reports, including reports provided to Congress on inventory levels, and from overall visibility systems. An example was cited in which about $19 billion of Government-owned materiel held by contractors and more than $3 billion of inventory items held by engineering and ordnance organizations were omitted from reports to Congress. The testimony concludes that the information in the DoD logistics systems on inventory did not meet accuracy objectives and that unless substantive improvements in producing reliable and timely data are made, efforts such as TAV will have difficulty achieving their objectives.

**Inspector General, DoD.** Over the past 5 years the Inspector General, DoD, issued 10 audit reports that specifically address inaccurate inventory data. Those 10 reports made 48 recommendations specific to inventory data accuracy, 23 of which had not been fully implemented. In the past year, the Inspector General, DoD, issued three reports in a series that address inventory valuation at each of the three DLA Defense Supply Centers (Columbus, Philadelphia, and Richmond). Specifically, the reports state that the inventory valuation data from the Defense Supply Centers, maintained in the DLA Standard Automated Materiel Management System, cannot be relied on to support the inventory amounts reported on the DLA financial statements. For example, the third report in the series, Report No. D-2001-146, “Inventory Valuation at the Defense Supply Center Philadelphia,” June 21, 2001, states that about 82 percent (599 items) of 728 non-subsistence items sampled at the Defense Supply Center Philadelphia were not correctly valued due to computational errors or were not supported by contract documentation. The report also states that about 60 percent (49 items) of the 81 subsistence items sampled were inaccurately valued.

**Army.** Over the past 5 years the Army Audit Agency issued 12 audit reports that address inaccurate inventory data. The 12 reports made 65 recommendations specific to inventory data accuracy, 3 of which had not been fully implemented. On November 17, 1997, the Army Audit Agency issued Report No. AA 98-31, “Total Asset Visibility-Operational Projects,” that concludes on-hand asset balances for operational projects in the Army TAV capability were not complete or reliable. For example, the Army Support Office, Philadelphia, Pennsylvania, managed about $367 million in assets for operational projects. However, those assets were not reported accurately to the Army TAV capability because the office did not have procedures and software to report asset balances. Using a sample of 50 stock number items, valued at $127 million, the auditors found that the Army TAV capability did not accurately reflect the inventory balances of 42 (84 percent) of those items.
Navy. Over the past 5 years the Naval Audit Service issued eight audit reports that address inaccurate inventory data. The 8 reports made 27 recommendations specific to inventory data accuracy, 9 of which had not been fully implemented. For example, on February 27, 2001, the Naval Audit Service issued Report No. N2001-0016, “Department of the Navy Principal Statements for Fiscal Year 2000: Inventory and Related Property, Net.” The report stated that none of 15 contracts with scheduled deliveries valued at about $500 million were maintained in a due-in file, which could have a negative impact on procurement planning.

Air Force. Over the past 5 years the Air Force Audit Agency issued seven audit reports that address inaccurate inventory data. The 7 reports contained 13 recommendations specific to inventory data accuracy, 2 of which had not been fully implemented. For example, on March 28, 2001, the Air Force Audit Agency issued Report No. 99061010, “Spare Parts Data System Inventory Accuracy,” that concluded the stock control and distribution inventory management system did not contain accurate inventory data for 89 percent (100 of 113) of items reviewed, resulting in misstated buy requirements for the 100 items, valued at $5 million.

Guidance and Oversight

The DUSD(L&MR) did not issue written guidance on the data elements to be included in the GPRA TAV performance measure. In addition, the DUSD(L&MR) did not institutionalize the process for verifying Component data included under the TAV measure. As a result, the DoD TAV performance measure reported to Congress under GPRA was not a reliable indicator of the status of the DoD TAV.

Guidance. The responsible DUSD(L&MR) office and the Components did not have any written guidance on the content of the GPRA TAV measure, except for DoD Regulation 4140.1-R. However, the Components indicated that they had received verbal guidance from the DUSD(L&MR) and had arrived upon the reporting format used for their input to the FY 2000 GPRA Report through discussions among themselves. The Components had no charter or other formal documents, such as minutes of meetings, for those discussions. Lack of written guidance from the DUSD(L&MR) resulted in inconsistencies in the data targeted for asset visibility among the Components. For example, the Navy, the Air Force, and DLA partially included in-transit assets as part of the GPRA TAV data, and the Army and the Marine Corps did not.

Oversight. The lack of an institutionalized process for verifying Component input resulted in incomplete and inconsistent data being used for the TAV measure. The responsible DUSD(L&MR) office had one individual responsible for oversight of the Component GPRA TAV data in addition to other duties. The responsible individual stated that she reviewed the data supporting the TAV performance measure by using trend analysis. The trend analysis consisted of reviewing the TAV data to identify and explain deviations in the data from
previous reports. She also pointed out that OSD did not require any additional detailed reviews of the data. For example, DUSD(L&M) did not review the asset data provided by the Components in sufficient detail to identify that the Navy, the Air Force, and DLA were partially including in-transit assets; that the Navy included approximately $1.6 billion in assets that it had turned in to the Defense Reutilization and Marketing Service; and that the DLA FY 2000 data submission combined FY 1999 and FY 2000 data.

Conclusion

The DoD TAV performance measure reported to Congress under GPRA was not a reliable indicator of the status of the DoD TAV. GPRA was enacted in 1993 for the purpose of providing a useful standard to measure performance of Government agencies. The GPRA measure for TAV was intended to measure progress in correcting long-standing asset visibility problems that were highlighted during Operation Desert Storm. The data reported under the GPRA TAV measure was not a good indicator of asset visibility and the measure did not provide a clear indication of the progress made in correcting supply accountability and distribution problems for the operational forces or other users. The reported data cover less than 50 percent of DoD assets that DoD Regulation 4140.1-R identifies to be included in the TAV data.

Recommendations

We recommend that the Deputy Under Secretary of Defense (Logistics and Materiel Readiness):

1. Evaluate the usefulness of the DoD Total Asset Visibility performance measure.

2. Issue specific, written, performance measure guidance that standardizes and clarifies the required data elements for the Total Asset Visibility measure consistent with the evaluation of the usefulness of the measure.

3. Establish and institutionalize a process to evaluate and verify data submitted by DoD Components for the Total Asset Visibility performance measure, consistent with the evaluation of the usefulness of the measure.

Management Comments Required

Management did not comment on a draft of this report. We request that the Under Secretary of Defense for Acquisition, Technology, and Logistics provide comments on the final report.
Appendix A. Audit Process

Scope

We reviewed public law; DoD guidance; supply system reports; 41 prior reports, including the status of report recommendations; and Component GPRA TAV reports dated from January 1993 through July 2001. To accomplish the audit objective, we:

- interviewed officials and obtained documentation from the Office of the DUSD(L&MR), the Army, the Navy, the Air Force, the Marine Corps, and DLA elements responsible for reporting TAV under the GPRA performance measure;
- reviewed Component asset visibility data contained in fourth quarter FY 2000 reports provided to DUSD(LM&R) and documents related to the GPRA TAV performance measure reported to Congress; and
- evaluated the methodology used in collecting asset visibility data.

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

Methodology

We reviewed the fourth quarter FY 2000 Component asset visibility data used by DUSD(L&M&R) to calculate the progress in meeting the GPRA TAV goal to determine the goal’s validity and applicability. Specifically, we reviewed each Component report to verify consistency among the Components in the categories of assets reported. We also reviewed each Component report to determine if all categories of assets required for inclusion in TAV were being reported. As a basis of comparison, we used asset data reported in the most recent SSIR and the FY 1999 DoD General Fund Financial Statement. The SSIR is an annual report published by OSD that provides summary level statistics on the status of DoD supply inventories. Component data submitted to DUSD(LM&R) were obtained from a variety of summary reports and databases, including the SSIR and Component-level automated logistics management systems, such as the Army Total Asset Visibility system, the Navy Fleet Inventory Management and Analysis Reporting system, the Air Force Supply System Inventory Report, the Marine Corps Stock Control System and the DLA Standard Automated Materiel Management System.
Use of Computer-Processed Data. We relied on computer-processed data that was contained in the Component reports that were provided to DUSD(L&MR) as input to the GPRA TAV measure. Although we did not perform reliability assessments of the Component automated logistics systems that were the source of the data, we determined that the data being provided under the GPRA TAV measure were of questionable accuracy based on prior audit coverage of reliability in accounting for assets as well as the valuation of those assets. (See Appendix B for a list of prior coverage.) However, because the majority of the errors resulted in under-reported inventory values, the errors did not preclude our use of the data for meeting the audit objective and do not affect our audit conclusions.

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

Contacts During the Audit. We contacted individuals and organizations within DoD. Further details are available upon 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. We reviewed the adequacy of the management controls over the TAV process in DoD. Specifically, we reviewed DUSD(L&MR) management controls for ensuring that TAV data reported by the Components were current, accurate, and complete. We reviewed management’s self-evaluation applicable to those controls.

Adequacy of the Management Controls. We identified a material management control weakness as defined by DoD Instruction 5010.40. The DUSD(L&MR) oversight of TAV reporting by the Components were inadequate to ensure that TAV data reported by the Components were current, accurate, and complete. The DUSD(L&MR) did not issue written guidance on the types of assets to be reported by the Components. Additionally, DUSD(L&MR) did not adequately validate the asset data the Components reported. Recommendations 2. and 3. in this report, if implemented, should correct this weakness. A copy of the report will be sent to the senior official in charge of management controls for DUSD(L&MR).

Adequacy of Management’s Self-Evaluation. The Military Departments, OSD, and DoD identified TAV, or TAV-related issues, as a continuing material management control weakness in their respective Statements of Assurance for FY 2000. See Appendix C for a discussion of the DoD TAV management control weaknesses reported by the Military Departments, OSD, and DoD in their statements.
Appendix B. Prior Coverage

During the last 5 years, the General Accounting Office has issued 11 reports; the Inspector General, DoD, has issued 21 audit reports; the Army has issued 23 audit reports; the Navy has issued 8 audit reports; and the Air Force has issued 8 audit reports addressing asset visibility in DoD. Unrestricted reports can be accessed over the Internet at:

Inspector General, DoD:  http://www.dodig.osd.mil/audit/reports
*Army Audit Agency:  http://www.hqda.army.mil/aaaweb/
Naval Audit Service:  http://www.hq.navy.mil/navalaudit/

*Only General Accounting Office and military domain users can access Army reports; others can request a report through the site.

General Accounting Office


General Accounting Office (cont’d)


Inspector General, DoD


Inspector General, DoD (cont’d)


Army Audit Agency

Army Audit Agency (cont’d)


Army Audit Agency (cont’d)


Naval Audit Service


**Naval Audit Service (cont’d)**


**Air Force Audit Agency**


Appendix C. DoD Total Asset Visibility Systemic Control Weakness

The TAV systemic management control weakness reported in the FY 1999 DoD Annual Statement of Assurance defines the TAV problem as the lack of the capability within DoD to share logistics information concerning the location, condition, quantity, and availability of assets within and between the Components and the unified commands. The Statement of Assurance further states, “The components have developed their own systems which give them an asset visibility capability within their own respective organizations [which] must now be integrated and voids satisfied . . .” However, all the actions and milestones established to correct the systemic control weakness address asset visibility in terms of the JTAV Program. The JTAV program addresses asset visibility for the unified commands rather than the Components. None of the milestones address the stated problem of integrating the Component logistics systems. The OSD identified TAV as a systemic control weakness in the Annual Statement of Assurance. In addition, the Army, the Navy, and the Air Force report a management control weakness related to TAV or TAV-related issues in their individual Statements of Assurance for FY 2000.

Office of the Secretary of Defense. The OSD FY 2000 Statement of Assurance reported TAV as a systemic control weakness. The OSD Statement of Assurance also states, “While the USD(AT&L) [Under Secretary of Defense for Acquisition, Technology, and Logistics] reidentified ‘Total Asset Visibility’ as a continuing systemic weakness, their submission shows all corrective actions as having been completed.”

Army and Navy. Both the Army and the Navy reported a management control weakness in their FY 2000 Statements of Assurance. Both Services reported a weakness in the area of in-transit asset visibility, which the Army first reported as a weakness in FY 1996 and the Navy first reported as a weakness in FY 1999. Additionally, the Navy reported management control weaknesses in the TAV-related areas of “Requirements Determination and Excess Material” and “Unrecorded Inventories.” Those weaknesses have a direct and adverse impact on asset visibility.

Air Force. The Air Force did not report TAV as a management control weakness in their FY 2000 Statement of Assurance. However, it did report management control weaknesses that impact the area of TAV. Those areas are “Spare Parts Accountability Controls” and “Classification of Material Shipment and Receipt Transactions.”

Department of Defense. DoD first identified TAV as a systemic control weakness in FY 1996 and reported it as a weakness every year since.

The FY 2000 DoD Annual Statement of Assurance was issued in October 2001, subsequent to the completion of the audit. In keeping with prior DoD Annual Statements, the FY 2000 Annual Statement of Assurance identified TAV as a systemic control weakness.
Coordination of Closure of Systemic Control Weaknesses

Proposed Closure of TAV Control Weakness. In a coordination memorandum dated August 11, 2000, the DUSD(L&MR) requested concurrence from the Inspector General, DoD, on the proposed closure of the DoD TAV systemic control weakness.

Inspector General, DoD, Response. The Inspector General, DoD, responded on August 25, 2000, to the DUSD(L&MR) and nonconcurred with the proposed closure of the TAV systemic control weakness. The Inspector General, DoD, commented that although TAV progress had been made there were still areas that needed work. Specifically, the Inspector General, DoD, identified the delays in the development of the Joint Ammunition System, the accuracy of DoD inventory records, and the lack of asset visibility at the retail level and in-transit as areas of concern.
Appendix D. Report Distribution

Office of the Secretary of the Defense

Under Secretary of Defense for Acquisition, Technology, and Logistics
  Deputy Under Secretary of Defense (Logistics and Materiel Readiness)
Under Secretary of Defense (Comptroller)
  Deputy Chief Financial Officer
  Deputy Comptroller (Program/Budget)
  Director, Program Analysis and Evaluation
Director, Administration and Management

Department of the Army

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 Organization

Office of Management and Budget
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
Audit Team Members

The Readiness and Logistics Support Directorate, Office of the Assistant Inspector General for Auditing, DoD, prepared this report. Personnel of the Office of the Inspector General, DoD, who contributed to the report are listed below.

Shelton R. Young  
Raymond D. Kidd  
Tilghman A. Schraden  
Kathryn L. Palmer  
Walter S. Bohinski  
William H. Zeh  
Glen B. Wolff  
Stuart W. Josephs  
Susan R. Ryan  
Major Daniel R. Sny, U.S. Air Force